



State Oil and Natural Gas Regulations Designed to Protect Water Resources

Regulations Reference Document

Addendum State Oil and Gas Regulations Reference Document

The purpose of the following pages is to provide the reader with a ready reference to select regulatory language and associated forms for the twenty-seven states that were included in this study as the regulations relate to the following topics.

- Permitting**
- Well Treatment, Stimulation and Fracturing**
- Well Construction**
- Temporary Abandonment/ Shut- in Status**
- Well Plugging**
- Tanks**
- Pits**
- Waste Handling**
- Spills**

These sheets are not a complete listing of all the regulatory language that exists at the state level. Rather, they are intended to provide a sense of the breadth and depth of the regulations for each state.

Elements of the topical areas were considered direct measures for the protection of water by state oil and gas environmental regulatory programs. While it could be argued that other topical areas such as Inspections, Enforcement and Bonding are also relevant, they are reactive in nature. Since the report is designed to provide an evaluation of the regulatory measures implemented to prevent rather than respond to water impacts, these topics are not included. Further, since the scope of this report does not include the Class II Underground Injection Control program, topics related to this program such as Mechanical Integrity Testing, Injection Operating Requirements and special Well Construction Requirements were not included unless they were also related to oil and gas production wells.

Information contained in the following pages was excerpted from the regulations of the state oil and gas agency as posted on their website. Unfortunately, web posting is not the official publishing method of many states. Consequently, the text does not necessarily match the officially published state regulations. Further, in some cases an administrative regulation could not be located but a statutory provision was available. In such cases, the statutory provision was used. Also, regulatory sections that are not consecutively labeled or numbered indicate the removal of language that was not considered essential. For example, a subsection in Permitting related to bonding may have been removed in the interests of brevity. This may have resulted in portions of the text that appear to skip over subsections. However, the full text of the state regulation and the state forms are available using the web links shown at the top of each state's pages.

Alabama		
Topic	Associated Forms	Regulations: http://www.ogb.state.al.us/ogb/rules.aspx
Permitting	<p>Application for Permit to Drill, Deepen or Convert, form OGB-1</p> <p>Application to Reenter, Form OGB-1A</p> <p>Application for Permit to Directionally Drill, Form OGB-1B</p> <p>Organization Report Form OGB-5</p> <p>Application for Permit to Inject Fluids, Form OGB-1C</p>	<p>Excerpted Text by Topic</p> <p>State Oil and Gas Board Administrative Code Well Permit 400-1-2-01</p> <p>(1) Activities Requiring Permits. The following activities require permits: (a) Drilling of any well in search of oil or gas; (b) Drilling a Class II injection well or converting any well to a Class II injection well for enhanced recovery or for the disposal of salt water and other wastes produced in association with oil or gas operations; (c) Drilling or converting any well for the development of reservoirs or solution-mined cavities for the underground storage of liquid or gaseous hydrocarbons; or (d) Reentry of a plugged and abandoned well.</p> <p>(2) Permit Requirements. Prior to initiating any of the activities identified in section (1) above, an application on either Form OGB-1, OGB-1A, or OGB-1B, whichever is appropriate, shall be filed with and approval obtained from the Supervisor or the Board. If applicable, applicants should also refer to Rule 400-4-1-.01, et seq. relating to Rules and Regulations Governing Class II Underground Injection Control Operations, Rule 400-5-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Reservoirs, or Rule 400-6-1-.01, et seq. relating to Rules and Regulations Governing Underground Storage of Gas in Solution-Mined Cavities.</p> <p>(3) Deepening. Prior to deepening a well below its permitted depth, an operator shall obtain approval of the Supervisor and, thereafter, such person shall immediately file Form OGB-1, OGB-1A or OGB-1B, whichever is appropriate. There is no fee required for a permit to deepen a well previously drilled or being drilled under a permit issued by the Supervisor.</p> <p>(5) Permit Approval Procedures. Applications for permits to drill, deepen, convert, or reenter that do not comply with onshore rules or applicable special field rules shall be approved or rejected by the Board, after due notice and hearing. Applications in compliance with onshore rules or applicable special field rules may be approved by the Supervisor. Drilling, deepening, converting or reentering shall not begin until such permit is issued.</p> <p>(6) Expiration of a Permit. A permit shall expire six (6) months from the date of issuance if the permitted well has not been spudded.</p>
Well Treatment, Stimulation and Fracturing	<p>Report of Well Treatment, Form OGB-6</p>	<p>Chemically Treating or Fracturing a Well 400-1-4-07</p> <p>Wells shall not be chemically treated or fractured until the approval of the Supervisor is obtained. Each well shall be treated or fractured in such manner as will not cause damage to the formation, result in water encroachment into the oil- or gas-bearing formation, or endanger freshwater-bearing strata. Necessary precautions shall be taken to prevent damage to the casing. Routine chemical treatments for corrosion control shall be excluded from this notice requirement. If chemical treating or fracturing results in irreparable damage to the well, the oil or gas-bearing formation or freshwater-bearing strata, then the well shall be properly plugged and abandoned.</p> <p>Report of Well Treatment 400-1-4-08</p> <p>Within thirty (30) days after the chemical treating or fracturing of a well, a report shall be filed with the Board in triplicate by the operator on Form OGB-6 setting forth in detail the method used in treating the well.</p> <p>Hydraulic Fracturing of Coal Beds 400-3-8-03</p> <p>(1) Each coal bed shall be hydraulically fractured so as not to cause irreparable damage to the coalbed methane (CBM) well, or to adversely impact any fresh water supply well or any fresh water resources. (2) A proposal to fracture a coal group shall be accompanied by a check or bank draft in the amount of one hundred seventy five dollars (\$175) payable to the State Treasurer, State of Alabama, which sum is fixed as the fee for each proposal. The fee shall be deposited into the Alabama State Oil and Gas Board Special Fund pursuant to Section 9-17-24 of the Code of Alabama (1975). (3) Coal beds shall not be hydraulically fractured until approval of the Supervisor is obtained. In order to receive approval, the operator shall submit to the Supervisor: a wellbore schematic showing the specifications of the casing and cementing program, including pressure tests and the depth interval(s) and name(s) of coal beds to be fractured; geophysical and cement bond logs; and (if applicable) an inventory of fresh water supply wells within a one quarter- (1/4-) mile radius of the CBM well. Further, the operator shall affirm to the Supervisor, in writing, that the well construction and pressure tests results, geophysical and cement bond logs, and (if applicable) inventory of fresh water supply wells have been evaluated and that the results of this evaluation indicate that the proposed hydraulic fracturing operations can be conducted without adverse impact on any fresh water supply wells or any fresh water resources. (4) The operator of CBM wells with proposed fracturing operations in the depth interval of four hundred (400) to six hundred (600) feet shall prepare an inventory of fresh water supply wells within a one quarter- (1/4-) mile radius of the well to be fractured. Records of fresh water supply wells shall be used by the operator in delineating the construction and completion depths of such supply wells. Published reports maintained in the library of the Geological Survey of</p>

Alabama (GSA) and in open files of the Hydrogeology Division of the GSA shall be the primary sources of information used in this evaluation process. Additionally, the operator shall conduct a field reconnaissance within a one quarter- (1/4-) mile radius of the CBM well to determine the location of any additional fresh water supply wells that may not be identified in the previously described documents. If possible, construction information for such additional fresh water supply wells must be obtained. Consideration shall be given to the records of all fresh water supply wells available and the operator shall report the results of his findings to the Supervisor. Fracturing operations shall not be conducted if it is determined that any fresh water resources or any fresh water supply well located within a one quarter- (1/4-) mile radius of the CBM well could be adversely impacted as a result of the fracturing operation.

(5) A program describing the proposed fracturing operation in the depth interval of four hundred (400) to six hundred (600) feet shall be used by the operator in conjunction with the evaluation process described in section (4) of this rule. Information to be considered shall include, but not be limited to, the maximum length and orientation of the fracture(s) to be propagated and the type fluids and materials that are to be utilized. Programs to hydraulically fracture shall be prepared by a person, or entity, familiar with the technicalities of fracturing coal beds in the area in which fracturing operations are proposed. Operators shall submit the fracturing program to the Supervisor. The program filed with the Board shall identify the person, or entity, that has prepared the fracturing program and be accompanied by a letter from the operator stating its intended application. Recurrent filing of a fracturing program will not be necessary if such program has previously been submitted to the Supervisor and is directly applicable to the fracturing proposal under consideration. Modification(s) to a fracturing program that would alter the maximum length and orientation of the fracture(s) to be propagated, or the type fluids and material to be utilized, shall be submitted to the Supervisor prior to its implementation in the field.

(6) Hydraulic fracturing of coal beds in the depth interval zero (0) to three hundred ninety nine (399) feet is prohibited.

(7) Diesel oil or fuel is prohibited in any fluid mixture used in the hydraulic fracturing of a coal bed.

(8) The Supervisor may request the submittal of additional information in order to clarify a proposal to hydraulically fracture a coal bed.

(9) The operator shall maintain all records associated with each proposal approved by the Supervisor and implemented by the operator to hydraulically fracture coal beds until such time that the CBM well has been plugged for permanent abandonment, but not less than three (3) years following completion of the fracturing operation. Upon request, copies of these records shall be made available to the Supervisor.

Casing, Cementing, and Test Pressure Requirements 400-1-4-09

Well Construction

Well Record and Completion or Recompletion Report, Form OGB-7

- (1) The operator shall case and cement all wells with a sufficient number of strings in a manner necessary to:
- (a) prevent communication between separate hydrocarbon-bearing strata (except such strata approved for commingling) and between hydrocarbon and water-bearing strata;
 - (b) prevent contamination of freshwater-bearing strata;
 - (c) support unconsolidated sediments; and
 - (d) otherwise provide a means of controlling formation pressures and fluids.
- (2) The operator shall install casing that meets American Petroleum Institute (API) standards. Cement shall meet API standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Safety factors in casing program design shall be of sufficient magnitude to provide optimum well control while drilling and to assure safe operations for the life of the well.
- (a) Surface Casing. The minimum amount of surface or first intermediate casing to be set below ground level, the cement requirements, and the test pressure requirements shall be determined from Table 1. However, if the operator does not set surface or first intermediate casing below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids, the operator may not be allowed to dispose of pit fluids in the well. See Rule 400-1-4-.11(1), relating to Disposal of Pit Fluids.

TABLE 1

Proposed true vertical depth (TVD) (ft)	Minimum casing required (ft)	Cement required	Surface test-pressure (psi)
0 - 4,000	300	Circulate to surface	600
4,001 - 5,000	400	Circulate to surface	600
5,001 - 6,000	600	Circulate to surface	800
6,001 - 7,000	800	Circulate to surface	1,000
7,001 - 8,000	1,000	Circulate to surface	1,000
8,001 - 9,000	1,400	Circulate to surface	1,000
Greater than 9,000	1,800	Circulate to surface	1,500

The Supervisor may specify surface or first intermediate casing requirements other than those set forth in Table 1 if such requirements are needed to provide for increased protection of freshwater resources.

(b) Intermediate Casing. Intermediate or protective casing shall be set when required by abnormal pressure, mud weights, sediments, and other well conditions. A quantity of cement sufficient to cover and isolate all hydrocarbon zones and to isolate abnormal pressure intervals from normal pressure intervals shall be used. If a liner is used as an intermediate string, the cement shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger casing string has been achieved. The test shall be recorded in the driller's log. When such liner is used as production casing, it shall be extended to the surface and cemented to avoid surface casing being used as production casing.

(c) Production Casing. Production casing shall be set before completing the well for production. It shall be cemented in a manner necessary to cover or isolate all zones which contain hydrocarbons. A calculated volume of cement sufficient to fill the annular space at least five hundred (500) feet above the top of the uppermost hydrocarbon zone shall be used. When a liner is used as production casing, the testing of the seal between the liner top and next larger string shall be conducted as in the case of intermediate liners.

(d) The Supervisor may approve an alternative casing program upon written justification by the operator.

(3) If there are indications of inadequate primary cementing (such as lost returns, cement channeling, or mechanical failure of equipment) of the surface, intermediate, or production casing strings, the operator shall evaluate the adequacy of the cementing operations by pressure testing the casing shoe, running a cement bond log or a cement evaluation tool log, running a temperature survey, or a combination thereof before continuing operations. If the evaluation indicates inadequate cementing, the operator shall re-cement or take other actions as approved by the Supervisor. The operator shall verify the adequacy of the

		<p>remedial cementing operations as described above.</p> <p>(4) Pressure Testing. An operator shall give notice to the Supervisor prior to pressure testing.</p> <p>(a) After primary cementing of surface casing and intermediate or protective casing, drilling shall not be resumed until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, surface casing and intermediate or protective casing shall be pressure tested as set forth in Table 1 above. All pressure tests are to be held for thirty (30) minutes. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then such corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%).</p> <p>(b) Upon conclusion of the drilling of the well, or prior to the setting of either intermediate or protective, or production casing strings, the surface casing shall be re-tested in accordance with Rule 400-1-4-.09(2)(a) in order to verify the integrity of the casing string. This requirement will not apply if the well is permitted to be drilled to a total depth of less than six thousand (6,000) feet and no problems are encountered during the drilling of such well that would require a retest to verify the mechanical integrity of its surface casing string.</p> <p>(c) After primary cementing of production casing, drilling shall not resume until a time lapse of twelve (12) hours under pressure. Cement is considered under pressure when one or more float valves are employed and are shown to be holding the cement in place or when other means of holding pressure are used. After cementing and prior to drilling the plug, production casing shall be pressure tested at a pressure in pounds per square inch (psi) calculated by multiplying the vertical depth of the producing string by two-tenths (2/10) or any other pressure required by the Board or Supervisor. All pressure tests are to be held for thirty (30) minutes and the maximum test pressure required shall not exceed fifteen hundred (1,500) psi. If during this test period the pressure declines more than ten percent (10%) of the initial test pressure, then corrective measures shall be taken to insure that the casing string is so set and cemented that it will hold the test pressure for thirty (30) minutes without a drop of more than ten percent (10%).</p> <p>(d) In the event of prolonged drill-pipe rotation within a casing string run to surface or of extended operations such as milling, fishing, jarring, washing over, working over, or other operations which could damage the casing, such casing string shall be pressure tested, and if required by the Supervisor, evaluated by a logging technique such as a caliper or casing inspection log every thirty (30) days. The evaluation results shall be submitted to the Supervisor with a determination of the integrity of casing for continued service during both drilling and workover operations, and over the producing life of the well. If the integrity of the casing in the well is deteriorated to a potentially unsafe level, remedial operations shall be conducted with a plan approved by the Supervisor prior to continuing operations.</p>
<p>Temporary Abandonment/ Shut-in Status</p>	<p>First Production or Retest Report, Form OGB-9</p>	<p>Request to Classify Wells as Temporarily Abandoned or Shut in 400-1-4-17</p> <p>(1) Temporary Abandonment Status. An operator may request that a well be placed in a temporarily abandoned status by submitting a written request to the Supervisor describing its future utility. Upon approval of a request by the Supervisor, the well will be placed in a temporarily abandoned status for a period of one (1) year. The operator must submit a subsequent request prior to the end of such period in order to extend the temporarily abandoned status for an additional year. Such request for a one (1) year extension must be justified in writing and include a statement as to when the well is scheduled to be used. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and implement a monitoring program before approving a request to classify a well as temporarily abandoned. The well location shall be maintained in accordance with Rule 400-1-4-.01, relating to Identification of Wells, and Rule 400-1-6-.10, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.</p> <p>(2) Shut-in Status. An operator may request that a well be placed in a shut-in status by submitting a written statement to the Supervisor stating that the well is capable of producing hydrocarbons, but must remain shut in until connected to a gathering system, pipeline, cleansing facility, or for some other reason. A request to classify a well as shut in will not be considered until the official test results have been received by the Board on Form OGB-9, First Production or Retest Report. Such request must be submitted in writing to the Supervisor stating why the well is shut in and the date that production is expected to begin. Upon approval by the Supervisor, the well will be placed in a shut-in status for a period of one (1) year. The operator must submit a subsequent request prior to the end of such period in order to extend the shut-in status for an additional year. Such request for a one (1) year extension must describe the progress that has been made toward placing the well on production and when production is expected to begin. The Supervisor or Board may require the operator to temporarily or partially plug the well, to verify the mechanical integrity of the casing in the well, and implement a monitoring system before approving a request to classify a well as shut in. The well location shall be maintained in accordance with Rule 400-1-4-.01, relating to Identification of Wells, and Rule 400-1-6-.10, relating to Site Maintenance. Additional safeguards and requirements may be imposed on the operator by the Supervisor or Board.</p>
<p>Well Plugging</p>	<p>Report of Well Plugging, Form OGB-11</p>	<p>Plugging and Abandonment of Wells 400-1-4-14</p> <p>Any nonproductive well shall be plugged within thirty (30) days of completion unless said well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Any productive well that has not produced in six (6) months or any Class II injection well or underground reservoir storage well that has ceased operation for six (6) months shall be plugged within thirty (30) days unless said well has been classified as temporarily abandoned or shut in pursuant to Rule 400-1-4-.17. Before any work is commenced to plug and abandon any well drilled in search of oil and gas or utilized as a Class II injection well or utilized as an underground reservoir storage well the operator shall provide the Supervisor with the proposed method and procedure to plug and abandon such well. Such method and procedure may be required in writing by the Supervisor. Also, the Supervisor may require that well records, including logs, be made available to determine if the proposed depths and lengths of plugs are adequate. Operations to plug and abandon a well shall not begin until approval of procedures has been obtained from the Supervisor. Unless otherwise allowed by the Supervisor, the operator shall notify the Supervisor at least twenty-four (24) hours prior to the commencement of plugging operations so that said operation may be witnessed by an agent of the Board. The cement in all plugs shall meet American Petroleum Institute (API) standards and shall be mixed with water of adequate quality so as not to degrade the setting properties. Unless specified otherwise by the Supervisor, the operator shall comply with the following requirements which apply to all wells drilled in search of oil and gas or utilized as Class II injection wells or underground reservoir storage wells.</p> <p>(1) A cement plug shall be placed across each hydrocarbon-bearing, abnormally pressured, or injection zone or a permanent-type bridge plug shall be placed at the top of each hydrocarbon-bearing zone or injection zone, but in either event a cement plug at least two hundred (200) feet in length shall be placed immediately above the uppermost hydrocarbon-bearing or injection zone.</p> <p>(2) When the base of fresh water is penetrated, a cement plug at least two hundred (200) feet in length shall be placed at least fifty (50) feet below and shall</p>

		<p>extend to at least one hundred fifty (150) feet above the base of fresh water. A cement plug may be required in the casing-borehole annulus if fresh water is not adequately protected by casing and cement.</p> <p>(3) A cement plug at least two hundred (200) feet in length shall be placed at least fifty (50) feet below and shall extend to at least one hundred fifty (150) feet above the surface casing shoe. A cement plug may be required in the annular space adjacent to the base of surface casing if needed to provide for increased protection of fresh water.</p> <p>(4) A cement plug at least twenty-five (25) feet in length shall be placed inside the smallest string of casing and in all annular spaces near the surface of the ground in each hole plugged, and casing(s) cut in such a manner so as not to interfere with soil cultivation, and a steel plate at least one-quarter (1/4) inch in thickness shall be welded to the casing stub(s).</p> <p>(5) The Supervisor may require verification of plugs by tagging and pressure testing.</p> <p>(6) The interval between plugs shall be filled with an approved fluid.</p> <p>(7) Other plugging methods and procedures may be required by the Supervisor.</p> <p>(8) Restoration of location shall be done in accordance with Rule 400-1-4-.16.</p> <p>Report of Well Plugging 400-1-4-15</p> <p>Within thirty (30) days after the plugging of any well, an operator shall file Form OGB-11, Report of Well Plugging, with the Supervisor setting forth in detail the method used in plugging such well. A schematic showing the down-hole construction of the well, including the depths and lengths of plugs, shall accompany Form OGB-11.</p>
<p>Tanks</p>	<p>Authorization to Clean Tank, form OGB-21</p>	<p>Tanks or Tank Batteries 400-1-6-07</p> <p>A sign shall be posted and maintained in a legible state, in a conspicuous place near a tank or tank battery. Such sign shall be posted when the tank or tank battery is installed and shall remain posted until the tank or tank battery is removed and the location restored. The sign shall include the name of the operator, the name or number designation of the battery, a listing of the permit number(s) from well(s) with fluids flowing into the battery, and the section, township, range, and county in which the tank or tank battery is located.</p> <p>Dikes 400-1-6-08</p> <p>All permanent tanks, tank outlets, treaters, or other facilities used to store oil, condensate, or salt water, must be surrounded by a dike which is constructed and maintained in a manner that is capable of retaining fluids. The containment area surrounded by the dike shall be lined with a material that is capable of retaining fluids. The containment area shall have a capacity of at least one-and-one-half (1 1/2) times that of the tank or other vessel containing fluids and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The Supervisor may require dikes around other facilities that contain oil, condensate, salt water, or other fluids. In the case of tank batteries, the dike must have the capacity to contain a volume equal to one-and-one-half (1 1/2) times that of the largest tank in the battery and in any event the dike shall be at least two (2) feet high on the inside wall unless otherwise approved by the Supervisor. The top of the dike must be at least two (2) feet higher than the bottom of the lowest tank or other vessel containing fluids. The tanks or other vessels containing fluids must be elevated to provide enough gradient to allow drainage away from the tanks toward the dike. No oil, condensate, salt water, or other deleterious substances shall be allowed to remain within containment areas. Drainage of fluids from containment areas shall be authorized by appropriate permit(s) or regulations.</p> <p>Berms 400-1-6-09</p> <p>The Supervisor may require that a containment berm at least two (2) feet high on the inside wall be constructed on the downslope side of a well location or other location used to store oil, condensate, or salt water.</p> <p>Authorization to Clean Tanks 400-1-6-12</p> <p>Any operator wishing to clean a tank must notify the Supervisor and submit Form OGB-21. Operations may begin after notification. The contents of a tank shall be manifested in accordance with Rule 400-1-9-.03, relating to Transportation of Wastes, and shall be disposed of as allowed by appropriate permit(s) or regulation(s).</p>
<p>Pits</p>	<p>Organization Report, Form OGB-5</p> <p>Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25</p>	<p>Pit Construction and Maintenance 400-1-4-10</p> <p>(1) An operator shall obtain approval of the Supervisor prior to the construction of any pit to be used in conjunction with drilling, completion, and workover operations.</p> <p>(2) All pits utilized to contain fluids during drilling, completion, and workover operations shall be constructed and maintained so as to prevent pollution of surface and ground water.</p> <p>(3) Pits shall be constructed and maintained so as to contain fluids within the pit. No fluids shall be discharged from the pit except as allowed by appropriate permit(s) and regulation(s). The fluid level in such pits shall be kept at least two (2) feet below the top of the pit wall or dike.</p> <p>(4) Pits shall be constructed and maintained so that no surface water or runoff will enter the pit.</p> <p>(5) Operators should construct pits so that the bottom of the pit is above the seasonal high water table. If the pit cannot be constructed in such a manner, then the Supervisor shall require that the pit be lined with a material that is capable of retaining pit fluids or that other action be taken to insure the protection of ground water.</p> <p>(6) Operators shall prevent materials that are not exempt under the Resource Conservation and Recovery Act from entering the pit during drilling, completion,</p>

		<p>or workover operations.</p> <p>(7) Prior to utilizing such pit, the pit shall be inspected by the operator who shall make a determination that said pit is constructed in a manner that will prevent the pollution of surface and ground water. The operator shall keep a record of the determination and shall provide a copy of said determination to the Board, upon request by the Supervisor. If requested by the Supervisor, an operator may be required to be available at the well location for a review of the determination as to whether or not the pit is in compliance with this rule.</p> <p>Recycling or Disposal of Pit Fluids and Pit Closure 400-1-4-11</p> <p>(1) Recycling or Disposal of Pit Fluids.</p> <p>(a) After a well is drilled, completed, or worked over, all fluids and recoverable slurry that remain in pits shall be recycled or disposed of in accordance with this rule within thirty (30) days of completion, unless otherwise approved by the Supervisor. The Supervisor may require that a pit be agitated in order to remove recoverable slurry. Prior to the subsurface disposal of pit fluids down the surface casing or first intermediate casing/production casing annulus, any oil that is present in the pit must be skimmed immediately after drilling operations cease and recycled or disposed of in accordance with appropriate permit(s) and regulations. If pit fluids and recoverable slurry are transported off location, except for disposal in an approved well, then these materials should be disposed of in a lawfully approved disposal facility, or recycled or disposed of in accordance with appropriate permit(s) and regulation(s).</p> <p>(b) The following procedures shall be implemented regarding the subsurface disposal of pit fluids down the surface casing or first intermediate casing/production casing annulus. These procedures are applicable for subsurface disposal into the well on location or to an approved well.</p> <ol style="list-style-type: none"> 1. Approval must be obtained from the Supervisor prior to implementing subsurface disposal operations. 2. Pressure testing for subsurface disposal of pit fluids shall be conducted and recorded in accordance with applicable requirements of Rule 400-1-4-.09(4), relating to Pressure Testing, and Rule 400-1-4-.10(5), relating to Recording Test Pressures. 3. During disposal operations the injection pressure shall not exceed ninety percent (90%) of the mechanical integrity test pressure of the casing. A pressure relief valve, set to the authorized maximum disposal pressure, shall be installed. Verification of the pressure setting of the relief valve may be requested by the Supervisor. 4. If surface or first intermediate casing is not set below the base of the underground source of drinking water (USDW) containing fluids of less than ten thousand (10,000) milligrams per liter total dissolved solids in the well to be used for subsurface disposal of pit fluids, then in addition to section (1)(b)1, (1)(b)2, (1)(b)3, and (1)(b)4, the following may apply: <ol style="list-style-type: none"> (i) The operator shall submit a schematic showing the downhole construction of such well and the approximate location and construction of all known water wells, core holes and oil and gas wells within a one-quarter (1/4) mile radius; and (ii) The operator shall submit an affidavit certifying that the disposal fluids contain only materials that are exempt under the Resource Conservation and Recovery Act, that the chloride concentration of the disposal fluids does not exceed two thousand (2,000) parts per million (ppm), and that the pH of the disposal fluids ranges between 6.0 and 9.0 standard units. <p>(c) Alternative methods may be used, if approved by the Supervisor.</p> <p>(2) Pit Closure.</p> <p>Within ninety (90) days after a well is drilled, completed, or worked over all pits shall be properly filled and compacted unless otherwise approved by the Supervisor. Pits shall be backfilled with earth and compacted to the satisfaction of the Supervisor. After all fluids and recoverable slurry in such pits have been disposed of, the Supervisor may permit the operator to leave such pit for use by the landowner, if the surface owner requests in a written statement to the Board that the pit be left open. The written statement should include the intended use for the pit.</p>
<p>Exempt Waste Handling</p>	<p>Transporter's and Storer's Monthly Report, Form OGB-16</p> <p>Waste Manifest, Form OGB-26</p> <p>Monthly Report of Fluids Injected Form OGB-17</p>	<p>Transportation of Wastes Associated with Oil and Gas Operations 400-1-9-03</p> <p>(1) Certificate of Eligibility to Transport Wastes.</p> <p>(a) No transporter shall transport wastes from a site until a Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, has been approved by the Supervisor and an Organization Report, Form OGB-5, as prescribed in Rule 400-1-2-.04, has been filed with the Board. Said approval of a Transporter's Certificate shall be for a two- (2-) year period, but may be renewed every two (2) years by filing a new Organization Report, Form OGB-5.</p> <p>(b) If any transportation procedures are modified, then an amended Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be submitted for approval by the Supervisor.</p> <p>(2) Revocation of Certificate of Eligibility to Transport Wastes.</p> <p>Whenever the transporter of wastes shall have failed to comply with all applicable laws and applicable rules and regulations of the Board, the applicable Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25, shall be revoked. The Supervisor or Board shall provide written notice to the transporter of revocation and the transporter shall immediately discontinue transporting wastes until further notice from the Supervisor or Board.</p> <p>(3) Wastes Manifest.</p> <p>(a) Every shipment of wastes shall be accompanied by a Wastes Manifest, Form OGB-26.</p> <p>(b) At the time of transport, the operator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the operator shall mail the appropriate copy to the Board within ten (10) days. All other copies shall accompany the waste shipment.</p> <p>(c) Upon receipt of the wastes, the disposer shall complete and sign Part III of the manifest. The transporter shall then retain the transporter's copy.</p> <p>(d) Upon completion of the manifest, the disposer shall retain the disposer's copy and mail the operator's copy to the operator and original copy to the Board within ten (10) days.</p> <p>(e) The operator, transporter, and disposer shall maintain file copies of the completed manifest for a period of at least three (3) years.</p> <p>(f) Oil and gas operations from which wastes are transported out of state must comply with the manifest system requirements.</p> <p>(4) Unit or Field-Wide Operations.</p> <p>In the case of unitized or field-wide operations where the transporting of wastes is confined to the geographical boundaries of the unit or field, the operator may be eligible for the following exemptions:</p> <p>(a) When the operator also serves as the generator, transporter and disposer, the operator may request an exemption from the manifest system upon filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25.</p> <p>(b) When the operator serves as the generator and disposer but contracts the transportation to another party, the operator may request an exemption</p>

		<p>from the manifest system upon the transporter filing and receiving approval of the Transporter's Certificate of Eligibility to Transport Wastes, Form OGB-25. The transporter shall be required to file a Transporter's and Storer's Monthly Report, Form OGB-16.</p> <p>Underground Injection Control 400-4-2-01</p> <p>(2) Injection of Fluids. Fluids injected into a Class II injection well shall be stored, transported, and injected in such a manner as may be approved by the Supervisor. Any such injection procedure that results or may result in the pollution of any USDW or in damage to oil, gas, or other minerals is prohibited.(a) Immediately following the initiation of production in any field or pool, all salt water shall be disposed of into an approved underground formation or otherwise disposed of as approved by the Supervisor where such salt water cannot damage or pollute any USDW, oil, gas, or other minerals.</p>
<p>Spills</p>	<p>Notification of Fire, Spill, Leak or Blow Out Incident Report, Form OGB-27</p>	<p>Notification of Fire, Spill, Leak, or Blow Out 400-1-9-01</p> <p>(1) The Supervisor shall be notified immediately of a fire, spill, leak, or blow out that occurs at or is related to the operation of any well, production, processing, storage, Class II injection facility, underground storage facility, plant, or gathering line or flowline, used in operations including but not limited to drilling, completing, testing, recompletion or reworking, producing, processing, storing, injecting, gathering, transporting or metering.</p> <p>(2) Such notification shall include information pertaining to a description of the incident; location by County, section, township, and range; extent of damage to life and environment; and corrective action taken.</p> <p>(3) If deemed necessary by the agent of the Board, Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days of the incident; however, when a spill or leak leaves the location Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days.</p> <p>(4) The operator shall immediately take the appropriate action to clean up spills, repair leaks, extinguish fires, and bring blow outs under control. Additionally, the operator shall notify other appropriate governmental agencies of the incident.</p> <p>Notification of Fire, Spill, Leak, or Blow Out 400-3-8-01</p> <p>(1) The Supervisor shall be notified immediately of a spill or leak that is not immediately contained or that leaves the location, or of any fire or blow out that occurs at or is related to the operation of any well, production, storage, or Class II injection facility, gathering line or flowline, used in operations including but not limited to drilling, completing, testing, recompletion or reworking, producing, storing, injecting, gathering, transporting, or metering.</p> <p>(2) Such notification shall include information pertaining to a description of the incident; location by county, section, township, and range; extent of damage to life and environment; and corrective action taken.</p> <p>(3) If deemed necessary by the agent of the Board, Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days of the incident; however, when a spill or leak leaves the location Form OGB-27, Notification of Fire, Spill, Leak or Blow Out Incident Report, shall be submitted to the Board within ten (10) days.</p> <p>(4) The operator shall immediately take the appropriate action to clean up spills that leave the location, repair leaks, extinguish fires, and bring blow outs under control. Additionally, the operator shall notify other appropriate governmental agencies of the incident.</p>

Alaska		
Topic	Associated Forms	Regulations: http://www.state.ak.us/local/akpages/ADMIN/ogc/Regulations/RegIndex.shtml
Permitting	<p>Application for a Permit to Drill, Form 10-401</p> <p>Application for Sundry Approvals, Form 10-403</p>	<p>Excerpted Text by Topic</p> <p>Alaska Administrative Code 20 AAC 25.005. Permit to drill</p> <p>(a) Before drilling or redrilling a well or re-entering an abandoned well, a person shall submit and obtain the commission's approval of an application for a Permit to Drill (Form 10-401). If, after drilling a well, a person wishes immediately to redrill below the structural or conductor casing to a new bottom-hole location not requiring a spacing exception under 20 AAC 25.055, the person may request oral approval from the commission to avoid interruption of operations. If oral approval is obtained, the name of the representative of the commission who provided oral approval and the date of the approval must be included on the application for a Permit to Drill, which must be submitted by the commission's next working day for final approval by the commission.</p> <p>(b) The commission will classify a well as</p> <ol style="list-style-type: none"> (1) exploratory; (2) development, either oil or gas; (3) service; or (4) stratigraphic test. <p>(d) For a well that is to be intentionally deviated, the requirements of 20 AAC 25.050(b) must be met.</p> <p>(e) Each well branch requires a separate Permit to Drill. If a previously drilled well is proposed to be redrilled below the structural or conductor casing to a new bottom-hole location, the application for a Permit to Drill must be accompanied by all items required under (c) of this section. If concurrent multiple well branches are proposed from a single conductor, surface, or production casing,</p> <ol style="list-style-type: none"> (1) the applicant shall designate one well branch as the primary wellbore and include all items required under (c) of this section with the application for a Permit to Drill for that well branch; and (2) for each other well branch, the application for a Permit to Drill need only include information under (c) of this section that is unique to that well branch and need not be accompanied by the \$100 fee. <p>(g) If drilling operations are not commenced within 24 months after the commission approves an application for a Permit to Drill, the Permit to Drill expires.</p> <p>20 AAC 25.010. Re-entry of a suspended well</p> <p>(a) Before re-entering a suspended well to conduct completion operations, the operator shall submit and obtain the commission's approval of an Application for Sundry Approvals (Form 10-403). The Application for Sundry Approvals must set out the current condition of the well and the proposed program for completion operations.</p> <p>(b) Before re-entering a suspended well to conduct drilling operations, the operator shall submit and obtain the commission's approval of an application for a Permit to Drill (Form 10-401) in conformance with 20 AAC 25.005.</p> <p>(c) The operator shall file with the commission within 30 days after completion, abandonment, or suspension of the well a Well Completion or Recompletion Report and Log (Form 10-407) and all information required by 20 AAC 25.070(3) and 20 AAC 25.071.</p> <p>20 AAC 25.015. Changes to a program in a permit to drill</p> <p>(a) To change a program approved in a Permit to Drill (Form 10-401) before drilling operations start, the operator shall</p> <ol style="list-style-type: none"> (1) submit and obtain the commission's approval of a new application for a Permit to Drill if the proposed surface location is changed, if the proposed bottom-hole location or the proposed location of an objective formation is changed by more than 500 feet laterally or vertically, or if the change requires a spacing exception under 20 AAC 25.055; however, no additional fee is required; or (2) otherwise notify the commission and obtain its approval of the change if the change is not covered by (1) of this subsection. <p>(b) To change a program approved in a Permit to Drill or to change information under 20 AAC 25.005(c) after drilling operations start, the operator shall</p> <ol style="list-style-type: none"> (1) submit and obtain the commission's approval of a new application for a Permit to Drill, accompanied by a fee of \$100, if the proposed bottom-hole location or the proposed location of an objective formation is changed by more than 500 feet laterally or vertically, or if the change requires a spacing exception under 20 AAC 25.055; or (2) submit and obtain the commission's approval of an Application for Sundry Approvals (Form 10-403) if the change is not covered by (1) of this subsection; the Application for Sundry Approvals must set out the approved program, the current condition of the well, and the proposed changes; in cases where prompt approval is needed, oral approval may be requested from the commission; if oral approval is obtained, the name of the representative of the commission who provided oral approval and the date of the approval must be included on the Application for Sundry Approvals, which must be submitted within three days for final approval by the commission.
Well Treatment, Stimulation and Fracturing	<p>Application for Sundry Approvals, Form 10-403</p> <p>Report of Sundry Well</p>	<p>20 AAC 25.280. Workover operations</p> <p>(a) An Application for Sundry Approvals (Form 10-403) must be submitted to and approved by the commission in order to enter a well and conduct one or more of the following types of well workover operations:</p> <ol style="list-style-type: none"> (1) the perforation or reperforation of casing; (2) stimulation; (3) the pulling of tubing;

	<p>Operations, Form 10-404</p> <p>Well Completion or Recompletion Report and Log, Form 10-407</p>	<p>(4) alteration of the casing; (5) repairs to the well.</p> <p>(b) The Application for Sundry Approvals must set out</p> <ol style="list-style-type: none"> (1) the current condition of the well; (2) a copy of the proposed program for well work; (3) unless already on file with the commission, a diagram and description of the well control equipment to be used, including if applicable a list of the blowout prevention equipment (BOPE) with specifications; (4) the maximum downhole pressure that may be encountered, criteria used to determine it, and the maximum potential surface pressure based on a pressure gradient to surface of 0.1 psi per foot of true vertical depth, unless the commission approves a different pressure gradient that provides a more accurate means of determining the maximum potential surface pressure, such as using a stabilized shut-in tubing pressure; (5) a description of any wellbore fluid to be used for primary well control; and (6) the current bottom-hole pressure, or, if data setting out the actual pressure are not available, an estimate of the current bottom-hole pressure. <p>(c) The operator shall keep records and reports of well workover operations, including BOPE test results, in conformance with the requirements of 20 AAC 25.070(1) .</p> <p>(d) The operator shall file with the commission, within 30 days after completion of workover operations, on a Report of Sundry Well Operations (Form 10-404), a complete record of the work performed and the tests conducted, and a summary of daily well operations as described in 20 AAC 25.070(3) . Upon request, the operator shall file with the commission a copy of the daily record required by 20 AAC 25.070(1) .</p> <p>(e) Upon application, the commission will, in its discretion, waive the requirements of this section for wells in a pool for which pool rules have been prescribed under 20 AAC 25.520.</p>
<p>Well Construction</p>	<p>Well Completion or Recompletion Report and Log, Form 10-407</p>	<p>20 AAC 25.030. Casing and cementing</p> <p>(a) A complete proposed well casing and cementing program must be submitted with an application for a Permit to Drill (Form 10-401). Unless modified or altered by pool rules established under 20 AAC 25.520, a well casing and cementing program must be designed to</p> <ol style="list-style-type: none"> (1) provide suitable and safe operating conditions for the total measured depth proposed; (2) confine fluids to the wellbore; (3) prevent migration of fluids from one stratum to another; (4) ensure control of well pressures encountered; (5) protect against thaw subsidence and freezeback effects within permafrost; (6) prevent contamination of freshwater; (7) protect significant hydrocarbon zones; and (8) provide well control until the next casing is set, considering all factors relevant to well control including formation fracture gradients, formation pressures, casing setting depths, and proposed total depth. <p>(b) General well casing and cementing provisions are as follows:</p> <ol style="list-style-type: none"> (1) casing design and setting depth must be based on engineering and geologic factors relevant to the immediate vicinity, including the presence or absence of hydrocarbons, potential drilling hazards, and permafrost; (2) for all casing strings on which blowout prevention equipment (BOPE) will be installed, cement may not be drilled out until sufficient compressive strength has been reached to obtain a valid formation integrity test; (3) within permafrost intervals, fluids that have a freezing point above the minimum permafrost temperature may not be left in casing-by-casing annuli or inside the casing upon completion, suspension, or shutdown of well operations, without commission approval of an alternate method that the commission determines will prevent damage to the casing; (4) if casing is subjected to prolonged drilling operations, the commission will, as necessary to verify casing integrity, require the casing to be pressure-tested, calipered, or otherwise evaluated by a method approved by the commission; (5) if zonal coverage is required under (a) of this section, and the commission believes zonal isolation might not have been established, the commission will require a cement quality log or other method to demonstrate isolation of the zone. <p>(c) Specific well casing provisions are as follows:</p> <ol style="list-style-type: none"> (1) structural casing must be set by driving, jetting, or drilling to a minimum depth of 70 feet in offshore wells to support unconsolidated shallow strata, to provide hole stability for initial drilling operations, and to provide a competent anchor for a diverter system; (2) for onshore wells, conductor casing must be set by driving, jetting, or drilling to a depth sufficient to provide anchorage for a diverter system, and for offshore wells, conductor casing must be set no less than 300 feet and no more than 1,000 feet below the mudline datum; however, the commission will <ol style="list-style-type: none"> (A) approve a different casing setting depth if necessary to permit the casing shoe to be set in a competent formation or below formations that should be isolated; or (B) authorize an operator to drill without setting conductor casing based upon information from wells drilled in the immediate vicinity and other available data, if the commission determines that the absence of conductor casing will not jeopardize well control; (3) surface casing must be set below the base of all strata known or reasonably expected to serve as a source of drinking water for human consumption and at a depth sufficient to provide a competent anchor for BOPE; (4) one or more intermediate casing strings must be set if required for protection of oil or gas or for protection against abnormally geo-pressured strata and lost circulation zones, or if otherwise required by well conditions; (5) production casing must be set and cemented through, into, or just above the production interval; (6) slotted liners, pre-perforated liners, and screens installed below a production packer are considered production equipment and not casing. <p>(d) Specific well casing cementing provisions are as follows:</p> <ol style="list-style-type: none"> (1) if structural casing is set by drilling or jetting, the structural casing must be cemented with sufficient cement to fill the annular space from the shoe to the surface; (2) if conductor casing is set by drilling or jetting, the conductor casing must be cemented by filling the annular space with cement from the shoe to the surface; if BOPE is to be installed on the conductor casing, the adequacy of the cement to contain potential wellbore pressures and fluids must be demonstrated

		<p>by a formation integrity test;</p> <p>(3) conductor casing cement may be washed out to a depth not exceeding the depth of the structural casing shoe, if installed;</p> <p>(4) surface casing must be cemented by filling the annular space with cement from the shoe to the surface; however, if cement does not circulate to the surface, if an excessive quantity of cement circulates to the surface, or if the formation integrity test shows an inadequate cement job,</p> <p>(A) the operator shall notify the commission before drilling ahead; and</p> <p>(B) the commission will require</p> <p>(i) a cement quality log or other approved method to evaluate the adequacy of the cement to contain potential wellbore pressures and fluids; and</p> <p>(ii) remedial action as necessary to meet the requirements of (a) of this section before drilling ahead;</p> <p>(5) intermediate and production casing must be cemented with sufficient cement to fill the annular space from the casing shoe to a minimum of 500 feet above all significant hydrocarbon zones and abnormally geo-pressured strata or, if zonal coverage is not required under (a) of this section, from the casing shoe to a minimum of 500 feet above the casing shoe; if indications of improper cementing exist, such as lost returns, or if the formation integrity test shows an inadequate cement job, remedial action must be taken;</p> <p>(6) if the intermediate or production string is a liner, a minimum of 100 feet overlap between the outer and inner strings is required; the interval of overlap must be made pressure competent and must be pressure-tested in accordance with (e) of this section;</p> <p>(7) for intermediate or production casing in a service well used for injection, a cement quality log or other evaluation log approved by the commission must be run to demonstrate isolation of the injected fluids to the approved interval.</p> <p>(e) A casing pressure test must be performed if BOPE is to be installed on a casing. The casing must be tested to hold a surface pressure equal to 50 percent of the required working pressure of the BOPE as specified in the Permit to Drill under 20 AAC 25.035(e) (3) or 20 AAC 25.036(c) (3). The results of this test and any subsequent tests of the casing must be recorded as required by 20 AAC 25.070(1) .</p> <p>(f) Except for through-tubing drilling, a formation integrity test must be performed if BOPE is installed on a casing. The test must be performed to a predetermined equivalent mud weight, leak-off, or fracture pressure as specified in the application for the Permit to Drill. The test must be conducted after drilling out of the casing shoe into at least 20 feet but not more than 50 feet of new formation. The test results must demonstrate that the integrity of the casing shoe is sufficient to contain anticipated wellbore pressures identified in the application for the Permit to Drill. The test procedure followed and the data from the test and any subsequent tests of the formation must be recorded as required by 20 AAC 25.070(1) .</p> <p>(g) Upon request of the operator, the commission will, in its discretion, approve variances from the requirements of (b) - (f) of this section to allow for special or unusual conditions if the design requirements of (a) of this section are satisfied.</p>
<p>Temporary Abandonment/ Shut-in Status</p>	<p>Application For Sundry Approvals, Form 10-403</p> <p>Well Completion or Recompletion Report and Log, Form 10-407</p>	<p>20 AAC 25.072. Temporary shutdown of drilling or completion operations</p> <p>(a) If circumstances prevent the continuation of the program approved on a Permit to Drill (Form 10-401), or if an operator wishes to change drill rigs, the operator shall apply to the commission for approval to shut down drilling or completion operations temporarily. Based on the information received under this subsection, the commission will decide whether to approve the temporary shutdown of drilling or completion operations. The request for operation shutdown must be submitted on an Application for Sundry Approvals (Form 10-403), providing a full justification for the shutdown, a description of the proposed condition of the wellbore upon shutdown of drilling or completion operations, the approximate date when drilling or completion operations will resume, and a proposed program for securing the well during the period of shutdown. An Application for Sundry Approvals is not required for planned shutdowns of well operations, if those shutdowns are described in the approved Permit to Drill.</p> <p>(b) The operator shall file with the commission, within 30 days after operation shutdown, a complete well record on a Report of Sundry Well Operations (Form 10-404), including a summary of daily well operations as described in 20 AAC 25.070(3) and a copy of all logs run in the well as required by 20 AAC 25.071(b) (6). The commission will, in its discretion, waive the requirements of this subsection if drilling or completion operations are to be resumed within 60 days after operation shutdown.</p> <p>(c) Shutdown of well operations does not establish a completion, suspension, or abandonment date for a well.</p> <p>(d) If well operations are not resumed within 12 months, the operator shall immediately proceed to abandon or suspend the well. Upon application of the operator, the commission will extend the 12-month period, if the operator shows that operational circumstances beyond the operator's control prevent resumption within the 12-month period.</p> <p>20 AAC 25.110. Suspended wells</p> <p>(a) If allowed under 20 AAC 25.105, the commission will, upon application by the operator under (b) of this section, approve the suspension of a well if</p> <p>(1) the well</p> <p>(A) encounters hydrocarbons of sufficient quality and quantity to indicate that the well is capable of producing in paying quantities, as reasonably demonstrated by well tests or interpretive formation evaluation data; for purposes of this paragraph, "paying quantities" means quantities sufficient to yield a return in excess of operating costs;</p> <p>(B) is a candidate for redrilling;</p> <p>(C) has potential value as a service well; or</p> <p>(D) is located on a pad or platform with active producing or service wells; and</p> <p>(2) the operator justifies to the commission's satisfaction why the well should not be abandoned, and, if the well is not completed, why the well should not be completed; sufficient reasons include the</p> <p>(A) unavailability of surface production or transportation facilities;</p> <p>(B) imprudence of security maintenance of a completed well in a shut-in status;</p> <p>(C) need for pool delineation and evaluation to determine the prudence of pool development.</p> <p>(b) An Application for Sundry Approvals (Form 10-403) must be submitted to and approved by the commission before plugging operations are begun in a well for which suspension is proposed, except that oral approval may be obtained from the commission if it is followed within three days by the submission of an Application for Sundry Approvals for final approval by the commission. Approval will be conditioned as necessary to protect freshwater and hydrocarbon resources. An Application for Sundry Approvals must include</p>

		<p>(1) the reason for suspending the well and information showing that the applicable criteria for suspension under (a) of this section have been met; and</p> <p>(2) a statement of proposed work, including</p> <ul style="list-style-type: none"> (A) information on abnormally geo-pressured strata; (B) the manner of placement, kind, size, and location, by measured depth, of existing and proposed plugs; (C) plans for cementing, shooting, testing, and removing casing; (D) if the Application for Sundry Approvals is submitted after beginning work, the name of the representative of the commission who provided oral approval, and the date of the approval; and (E) other information pertinent to suspension of the well. <p>(c) At the operator's request accompanying the submission, information submitted to show that the applicable criteria for well suspension under (a) of this section have been met will be kept confidential</p> <ul style="list-style-type: none"> (1) for the period specified under AS 31.05.035 (c), if the information is described in 20 AAC 25.071(b) ; or (2) for the time that the information has value as a trade secret, if the information is not described in 20 AAC 25.071(b) but is determined by the commission to constitute a trade secret under AS 45.50.940 . <p>(d) A well approved for suspension must be plugged in accordance with the requirements of 20 AAC 25.112, except that the requirements of 20 AAC 25.112(d) do not apply if</p> <ul style="list-style-type: none"> (1) a wellhead is installed or the well is capped with a mechanical device to seal the opening; and (2) a bridge plug capped with 50 feet of cement or a continuous cement plug extending 200 feet within the interior casing string is placed at or above 300 feet below the surface; the commission will waive the requirement of this paragraph for a development well drilled from a pad or platform, if the commission determines that the level of activity on the pad or platform assures adequate surveillance of that development well. <p>(e) Until a suspended well has been abandoned or re-entered, the operator shall maintain the integrity of the location, provide the commission with a well status report every five years, and clear the location in accordance with 20 AAC 25.170(a) (2) or (b) or with 20 AAC 25.172(c) (2) or (d), as applicable.</p> <p>20 AAC 25.115. Shut-in wells</p> <p>(a) No later than March 31 of each year, an operator shall file with the commission a report on completed development or service wells that have been shut in for 365 days or longer as of January 1 of that year. The report must provide</p> <ul style="list-style-type: none"> (1) the current known mechanical condition of the well, including the condition of installed tubing and casing strings; (2) the date the well was shut in and the circumstances surrounding the decision to shut in the well; and (3) an analysis of the future utility of the well. <p>(b) The commission will require an operator of a shut-in well to file additional information as the commission considers necessary to ensure that freshwater and hydrocarbon sources are protected.</p>
Well Plugging	Well Completion or Recompletion Report and Log, Form 10-407	<p>20 AAC 25.112. Well plugging requirements</p> <p>(a) Plugging of the uncased portion of a wellbore must be performed in a manner that ensures that all hydrocarbons and freshwater are confined to their respective indigenous strata and are prevented from migrating into other strata or to the surface. The minimum requirements for plugging the uncased portion of a wellbore are as follows:</p> <ul style="list-style-type: none"> (1) by the displacement method, a cement plug must be placed <ul style="list-style-type: none"> (A) from 100 feet below the base to 100 feet above the top of all hydrocarbon-bearing strata; (B) from the well's total depth to 100 feet above the top of all hydrocarbon-bearing strata; (C) from the well's plugged back total depth to 100 feet above the top of all hydrocarbon-bearing strata, if all hydrocarbon-bearing, abnormally geo-pressured, and freshwater strata below are isolated; however, the commission will approve plugging from the top of fill or the top of junk instead of from the plugged back total depth, if the commission determines that the objectives of this subsection will be met; or (D) from 100 feet below the base to 50 feet above the base of each significant hydrocarbon-bearing stratum and from 50 feet below the top to 100 feet above the top of each significant hydrocarbon-bearing stratum; (2) by the displacement method, a cement plug must be placed from 100 feet below the base to 50 feet above the base of each abnormally geo-pressured stratum and from 50 feet below the top to 100 feet above the top of each abnormally geo-pressured stratum; (3) by the displacement method, a cement plug must be placed from 150 feet below the base to 50 feet above the base of the deepest freshwater stratum. <p>(b) Plugging of a well must include effectively segregating uncased and cased portions of the wellbore to prevent vertical movement of fluid within the wellbore. The minimum requirement for plugging to segregate uncased and cased portions of a wellbore is one of the following:</p> <ul style="list-style-type: none"> (1) by the displacement method, a continuous cement plug must be placed from 100 feet below to 100 feet above the casing shoe; (2) by the downsqueeze method using a retainer set no less than 50 feet but no more than 100 feet above the casing shoe, a volume of cement sufficient to fill the wellbore from the retainer to 100 feet below the casing shoe must be pumped through the retainer, and cement must be pumped above the retainer to cap it with a 50 foot cement plug; (3) by the downsqueeze method using a production packer set no less than 50 feet but no more than 500 feet above the casing shoe, a volume of cement sufficient to fill the wellbore from 100 feet below the casing shoe to the packer must be pumped through the packer, and cement must be pumped above the packer to cap it with a 50 foot cement plug. <p>(c) Plugging of cased portions of a wellbore must be performed in a manner that ensures that all hydrocarbons and freshwater are confined to their respective indigenous strata and are prevented from migrating into other strata or to the surface. The minimum requirements for plugging cased portions of a wellbore are as follows:</p> <ul style="list-style-type: none"> (1) perforated intervals must be plugged by one of the following methods: <ul style="list-style-type: none"> (A) by the displacement method, a cement plug placed from 100 feet below the base to 50 feet above the base of the perforated interval and from 50 feet below the top to 100 feet above the top of the perforated interval; (B) by the displacement method, a cement plug placed from the well's total depth to 100 feet above the top of the perforated interval;

		<p>(C) by the displacement method, a cement plug placed from the well's plugged-back total depth to 100 feet above the top of the perforated interval, if all hydrocarbon-bearing, abnormally geo-pressured, and freshwater strata below are isolated; however, the commission will approve plugging from the top of fill or the top of junk instead of from the plugged-back total depth, if the commission determines that the objectives of this subsection will be met;</p> <p>(D) by the downsqueeze method using a cement retainer or production packer set no less than 50 feet but no more than 500 feet above the perforated interval, a volume of cement pumped through the retainer or packer sufficient to fill the wellbore from 100 feet below the base of the perforated interval to the retainer or packer;</p> <p>(E) if the perforations are isolated from open hole below, a mechanical bridge plug set no more than 50 feet above the top of the perforated interval, and either a minimum of 75 feet of cement placed on top of the plug by the displacement method or a minimum of 25 feet of cement placed on top of the plug with a dump bailer;</p> <p>(2) casing stubs within outer casing must be plugged by one of the following methods:</p> <p>(A) by the displacement method, a cement plug placed from 100 feet below the stub to 100 feet above the stub;</p> <p>(B) by the downsqueeze method using a retainer set 50 feet above the stub, a volume of cement pumped below the retainer sufficient to fill the casing stub with 150 feet of cement, and cement pumped above the retainer to cap it with a 50 foot cement plug;</p> <p>(C) if the casing stub annulus is cemented, a mechanical bridge plug set no more than 25 feet above the casing stub, and either a minimum of 75 feet of cement placed on top of the plug by the displacement method or a minimum of 25 feet of cement placed on top of the plug with a dump bailer;</p> <p>(3) if freshwater is present, the smallest diameter casing string extending to the surface must be plugged by one of the following methods:</p> <p>(A) by the displacement method, a cement plug placed from 100 feet below the depth of the surface casing shoe to 100 feet above the depth of the shoe;</p> <p>(B) a mechanical bridge plug set 100 feet below the depth of the surface casing shoe and at least 200 feet of cement placed on top of the plug.</p> <p>(d) Plugging of the surface of a well must meet the following requirements:</p> <p>(1) by the displacement method, a cement plug at least 150 feet in length, with the top of the cement no more than five feet below original ground level onshore, or between 10 and 30 feet below the mudline datum offshore, must be placed within the smallest diameter casing string;</p> <p>(2) either</p> <p>(A) all annular space open at the surface onshore, or in communication with open hole and extending to the mudline datum offshore, must be plugged with cement to seal the annular space in a manner satisfactory to the commission; or</p> <p>(B) all casing interior to the surface casing must be recovered to a depth of 100 feet or more below the original ground level onshore or the mudline datum offshore and the casing stubs plugged with cement as provided in (c)(2)(A) of this section; if the cement plug is extended to within the distance from the surface specified in (1) of this subsection, the requirement of (1) of this subsection need not be met.</p> <p>(e) Cement used for plugging within zones of permafrost must be designed to set before freezing and have a low heat of hydration.</p> <p>(f) Each of the respective intervals of a wellbore between the various plugs must be filled with fluid of sufficient density to exert a hydrostatic pressure exceeding the greatest formation pressure of permeable formations in the intervals between the plugs at the time of abandonment.</p> <p>(g) Except for surface plugs, the operator shall record the actual location and integrity of cement plugs, cement retainers, or bridge plugs required by this section, using one of the following methods, which in the case of a cement retainer or bridge plug may be performed before cement is placed on top of the plug:</p> <p>(1) placing sufficient weight on the plug to confirm its location and to confirm that the plug has set and a competent plug is in place;</p> <p>(2) testing the plug to hold a surface pressure of 1,500 psig or 0.25 psi/ft multiplied by the true vertical depth of the casing shoe, whichever is greater, and tagging the plug to confirm location; however, surface pressure may not subject the casing to a hoop stress that will exceed 70 percent of the minimum yield strength of the casing.</p> <p>(h) At least 24 hours notice of plugging operations must be given to the commission so that a representative of the commission can witness the operations.</p> <p>(i) The commission will, in its discretion, approve a variance from the requirements of this section if the variance provides for at least equally effective plugging of the well and prevention of fluid movement into sources of hydrocarbons or freshwater.</p>
Tanks		<p>20 AAC 25.047. Reserve pits and tankage</p> <p>(a) Before a person commences drilling a well, a reserve pit must be constructed or tankage installed for the reception and confinement of drilling fluids and cuttings, to facilitate the safety of the drilling operation, and to prevent contamination of freshwater and damage to the surface environment. The confining surface of a reserve pit must be impervious. If practical, confinement diking in construction of a reserve pit must be avoided. If confinement dikes are necessary, they must be kept to a minimum. Dikes must be constructed and maintained to ensure their confinement integrity.</p> <p>(b) Upon completion, suspension, or abandonment of the well, the operator shall proceed with diligence to leave the reserve pit in a condition that does not constitute a hazard to freshwater.</p>
Pits		<p>20 AAC 25.528. Open pit storage of oil</p> <p>An operator may not, except during an emergency, store or retain crude oil in an open earthen confinement or in an open receptacle.</p> <p>20 AAC 25.047. Reserve pits and tankage</p> <p>(a) Before a person commences drilling a well, a reserve pit must be constructed or tankage installed for the reception and confinement of drilling fluids and cuttings, to facilitate the safety of the drilling operation, and to prevent contamination of freshwater and damage to the surface environment. The confining surface of a reserve pit must be impervious. If practical, confinement diking in construction of a reserve pit must be avoided. If confinement dikes are necessary, they must be kept to a minimum. Dikes must be constructed and maintained to ensure their confinement integrity.</p> <p>(b) Upon completion, suspension, or abandonment of the well, the operator shall proceed with diligence to leave the reserve pit in a condition that does not constitute a hazard to freshwater.</p>
Exempt Waste Handling	Application for Sundry Approval, Form	<p>20 AAC 25.080. Annular disposal of drilling waste</p> <p>(a) A person may not dispose of drilling waste through the annular space of a well unless authorized by the commission under this section. The operator of a well</p>

	<p>10-403</p> <p>Report of Annular Disposal, Form 10-423</p>	<p>permitted under AS 31.05.090 may request authorization for the disposal of drilling waste through the well's annular space by filing with the commission an Application for Sundry Approvals (Form 10-403) supplemented with additional information as required under this section.</p> <p>(b) A request for authorization under this section must include the following information or refer to that information if that information is already on file with the commission:</p> <ol style="list-style-type: none"> (1) the annulus to be used for disposal; (2) the depth to the base of freshwater aquifers and permafrost, if present; (3) a stratigraphic description of the interval exposed to the open annulus and other information sufficient to support a commission finding that the waste will be confined and will not come to the surface or, except to the extent allowed under (e)(1) of this section, contaminate freshwater; (4) a list of all publicly recorded wells within one-quarter mile, and all publicly recorded water wells within one mile, of the well that will receive drilling waste; (5) the types and maximum volume of waste to be disposed of and the estimated density of the waste slurry; (6) a description of any waste sought to be determined as drilling waste under (h)(3) of this section; (7) an estimate of the maximum anticipated pressure at the outer casing shoe during disposal operations and calculations showing how this value was determined; (8) details that show that the shoe of the outer casing is set below the base of permafrost, if present, and any freshwater aquifer, other than freshwater excepted under (e)(1) of this section, and is adequately cemented to provide zone isolation; the information relied upon and submitted must include <ol style="list-style-type: none"> (A) cementing records; and (B) a cement quality log or formation integrity test records; (9) details that show that the inner and outer casing strings have sufficient strength in collapse and burst to withstand the anticipated pressure of disposal operations; (10) the downhole pressure obtained during a formation integrity test conducted below the outer casing shoe; (11) identification of the hydrocarbon zones, if any, above the depth to which the inner casing is cemented; (12) the duration of the disposal operation, not to exceed 90 days; (13) whether drilling waste has previously been disposed of in the annular space of the well and, if so, a summary of the dates of the disposal operations, the volumes of waste disposed of, and the wells where the drilling waste was generated; (14) the well where the drilling waste to be disposed of was or will be generated; (15) if the operator proposes not to comply with a limitation established in (d) of this section, an explanation of why compliance would be imprudent; (16) any additional data required by the commission to confirm containment of drilling waste. <p>(c) The commission will authorize an annular disposal operation described in the Application for Sundry Approvals, as that application has been supplemented under this section, and subject to any modifications prescribed by the commission, if the commission determines that the</p> <ol style="list-style-type: none"> (1) waste will be adequately confined; (2) disposal will not <ol style="list-style-type: none"> (A) contaminate freshwater, except to the extent allowed under (e)(91) of this section; (B) cause drilling waste to surface; (C) impair the mechanical integrity of any well; or (D) damage a producing or potentially producing formation or impair the recovery of oil or gas from a pool; and (3) disposal will not circumvent 20 AAC 25.252 or 20 AAC 25.412. <p>(d) Unless the operator demonstrates that compliance with a limitation established in (1) - (4) of this subsection is imprudent, the commission will not authorize disposal of drilling waste</p> <ol style="list-style-type: none"> (1) in a volume greater than 35,000 barrels through the annular space of a single well; (2) for a period longer than one year through the annular space of a single well; (3) into a hydrocarbon-bearing stratum; or (4) through the annular space of a well not located on the same drill pad or platform as the drilling operation generating the drilling waste. <p>(e) On a case-by-case basis, and as the commission considers necessary to ensure that the standards in (c) of this section are met, the commission will impose conditions upon an authorization to dispose of drilling waste under this section. In addition, an authorization to dispose of drilling waste under this section is subject to the following conditions:</p> <ol style="list-style-type: none"> (1) drilling waste may not be disposed of into freshwater, unless the <ol style="list-style-type: none"> (A) freshwater is identified in the Application for Sundry Approvals; and (B) commission finds that the freshwater has a total dissolved solids content of more than 3,000 mg/l, and is not reasonably expected to supply a public water system; the commission will, in its discretion, provide 15 days notice and the opportunity for a public hearing in accordance with 20 AAC 25.540 before making that finding; (2) the downhole disposal pressure may not exceed the downhole pressure obtained during the formation integrity test conducted below the outer casing shoe, or a higher pressure specified in the authorization upon the commission's finding that the higher pressure will not cause drilling waste to migrate above the confining zone; (3) if drilling waste appears above the confining zone, the operator shall immediately cease disposal, notify the commission, and take appropriate remedial action; (4) if the commission notifies the operator that disposal operations pose a threat to well integrity, safety, oil or gas recovery, or freshwater, except to the extent allowed under (1) of this subsection, the operator shall immediately cease disposal and take appropriate remedial action as approved or required by the commission. <p>(f) For each annular disposal operation authorized under this section, the operator shall report the following information to the commission on a Report of Annular Disposal (Form 10-423) not later than 30 days after the end of the period authorized for the disposal operation:</p> <ol style="list-style-type: none"> (1) the dates when disposal began and ended; (2) the volume of drilling waste disposed of in each of the following categories: <ol style="list-style-type: none"> (A) the aggregate of drilling wastes described in (h)(1) of this section;
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		<p>(B) the aggregate of drilling wastes described in (h)(2) of this section; and (C) each substance determined to be a drilling waste under (h)(3) of this section.</p> <p>(g) The provisions of 20 AAC 25.252 and 20 AAC 25.402 - 20 AAC 25.460 do not apply to the disposal of drilling waste authorized under this section.</p> <p>(h) In this section, "drilling waste" means the following substances, unless identified as a hazardous waste in 40 C.F.R. 261:</p> <ol style="list-style-type: none"> (1) drilling mud, drilling cuttings, reserve pit fluids, cement-contaminated drilling mud, completion fluids, formation fluids associated with the act of drilling a well permitted under 20 AAC 25.005, and any added water needed to facilitate pumping of drilling mud or drilling cuttings; (2) drill rig wash fluids and drill rig domestic waste water; and (3) other substances that the commission determines upon application are wastes associated with the act of drilling a well permitted under 20 AAC 25.005. <p>(i) For purposes of this section, in AS 31.05.030 (e)(2), "oil or gas well" means a well permitted under AS 31.05.090 , other than a water well associated with oil or gas exploration and production.</p>
<p>Spills</p>		<p>20 AAC 25.205. Notification of uncontrolled release of oil or gas</p> <p>(a) The operator shall immediately notify the commission of any uncontrolled release exceeding 10 barrels of oil or 1,000 mscf of gas from a well or production handling operation or any uncontrolled release that results in a shutdown of operations at a production facility.</p> <p>(b) Within five days after the release, the operator shall submit a preliminary written report to the commission, followed by a final written report within 30 days, detailing the following facts:</p> <ol style="list-style-type: none"> (1) the time of the incident; (2) the location where the incident took place; (3) the volumes of oil and gas released and recovered; (4) the cause of the release; (5) responsive actions taken to prevent additional releases; (6) plans, actions, equipment, or procedural changes to prevent or minimize the risk of future releases.

Arizona		
Topic	Associated Forms	Regulations: http://www.azsos.gov/public_services/Title_12/12-07.htm
Permitting	Application for Permit to Drill or Reenter, Form 03	<p>Arizona Administrative Code R12-7-104. Application for Permit to Drill</p> <p>A. Before drilling or re-entering any well or conducting any surface disturbance associated with such activity, the operator shall submit to the Commission an application for permit to drill or re-enter and obtain approval.</p> <p>B. The Commission shall mail to the applicant, within 30 days of receipt of the application required in subsection (A), written notice of administrative completeness or a detailed list of deficiencies. Within 30 days of receipt of all items required in subsection (A), the Commission shall review the application and:</p> <ol style="list-style-type: none"> 1. Issue a permit to drill, or 2. Provide a written explanation in compliance with A.R.S. § 41-1076 to the applicant if the application is not approved. <p>C. Time-frames</p> <ol style="list-style-type: none"> 1. The administrative review period is 30 days. The substantive review period is 30 days. The overall time-frame is 60 days. 2. For the purpose of this subsection, intermediate Saturdays, Sundays, and legal holidays shall be included in the time-frame computation. The last day of the notice period shall be included in the computation unless it is a Saturday, Sunday, or legal holiday. <p>D. Unless operations are commenced within 180 days after date of approval, the permit to drill shall become null and void unless an extension in writing is granted by the Commission.</p> <p>E. In case of imminent danger to public safety or of contamination of the environment, the Commission may authorize the drilling of an emergency relief or offset well to reduce the danger or hazard. Within 10 days of commencing an emergency relief or offset well, the operator shall file an application as required in subsection (A). No well drilled under this subsection shall be used for production unless it conforms to the provisions of R12-7-107.</p>
Treatment, Stimulation and Fracturing	Well Completion or Recompletion Report and Well Log, Form 04 Sundry Notices and Reports on Wells, Form 25	<p>R12-7-117. Artificial Stimulation of Oil and Gas Wells</p> <p>A. An operator shall report the artificial stimulation of any well to the Commission in writing within 15 days of the stimulation showing the type of stimulation, the amounts and types of materials used, stimulation pressures applied, and the flow and pressure results before and after stimulation.</p> <p>B. If the artificial stimulation of a well results in any damage to the producing formation, a freshwater formation, casing, or casing seat that permits communication between fluid-bearing zones, the operator shall immediately notify the Commission and proceed with diligence to correct the damage. If the artificial stimulation results in irreparable damage to the well, the operator shall plug and abandon the well pursuant to R12-7-127.</p>
Well Construction	Well Completion or Recompletion Report and Well Log, Form 04	<p>R12-7-110. Surface Casing Requirements</p> <p>A. Surface casing shall be set at a sufficient depth to protect and isolate all known or reasonably estimated freshwater zones and to prevent blowouts or uncontrolled flows. The surface casing shall:</p> <ol style="list-style-type: none"> 1. Be of sufficient size to permit the use of an intermediate string or strings of casing; 2. Be set in or through an impervious formation and shall be cemented by the pump and plug, displacement, or other method approved by the Commission; 3. Be cemented back to surface either during the primary cement job or by remedial action; and 4. Have API-approved centralizers on the bottom three joints as a minimum. <p>B. Cement shall be allowed to set a minimum of 12 hours under the lowest necessary pressure before drilling the cementing plugs or initiating tests.</p> <p>C. Surface casing shall be pressure tested for at least 30 minutes to 70% of internal yield pressure or one psi per foot of casing depth, whichever is less. If a drop of more than 10% of the test pressure should occur, the casing shall be considered defective and corrective measures shall be applied. In wells drilled with cable tools, casing may be tested by bailing the well dry. The hole shall remain satisfactorily dry for one hour before commencing further operations. Results of the above test and any remedial action shall be reported in writing to the Commission within 15 days following the test.</p> <p>D. The operator of a well shall notify the Commission at least 48 hours before setting surface casing so that a representative of the Commission may witness all or a part of the operations required in this Section.</p> <p>R12-7-111. Intermediate and Production Casing and Tubing Requirements</p> <p>A. All producing wells shall be completed with production casing set directly above or through the producing interval and cemented by the pump and plug method, or other method approved by the Commission, to protect the zones to be produced. An intermediate string of casing may be required to seal off all potentially productive, lost circulation, and abnormally pressured zones that may be encountered in the well, except those to be produced. The Commission may require casing strings to be cemented from the maximum depth of the casing to at least 50 feet inside the previously run string of casing. For liners, a minimum of 100 feet of overlap between a string of casing and the next larger casing is required.</p> <p>B. Strings of casing shall stand cemented for at least 12 hours before drilling out the cementing plugs or initiating such tests as the Commission may require.</p> <p>C. Strings of intermediate and production casing shall be pressure tested to 70% of the manufacturer's rated internal yield pressure or one psi per foot of casing depth, whichever is less. In cases where combination strings utilizing casing of varied grades and weights are used, the above test pressures shall apply to the lowest pressure rated component used. If pressure declines more than 10% in 30 minutes, the casing shall be considered defective and corrective measures shall be applied.</p> <ol style="list-style-type: none"> 1. In wells drilled with cable tools, casing may be tested by bailing the well dry, in which case the hole shall remain satisfactorily dry for at least one

		<p>hour before commencing further operations on the well. Results of the above test and any remedial action shall be reported in writing to the Commission within 15 days following the test.</p> <p>D. All flowing oil wells shall have tubing set as near the bottom as practical with tubing perforations not more than 250 feet above the top of the zone to be produced. Wells may be completed with small-diameter casing, which is generally understood in the industry to be "slim hole" or "tubingless" completions, in lieu of tubing.</p> <p>E. The operator shall notify the Commission at least 48 hours before setting any casing string so that a representative of the Commission may witness all or a part of the operations required in this Section.</p> <p>R12-7-112. Defective Casing or Cementing</p> <p>A. The operator shall take immediate steps to correct the casing condition of any well that may cause, or is causing, underground waste of oil, gas, or geothermal resources or contamination of fresh waters. These steps shall restore the integrity of the casing to the standards set in R12-7-110(C) and R12-7-111(C).</p> <p>B. The operator shall report the corrective actions taken in writing to the Commission within 15 days of the completion of the work. If the condition of the casing cannot be corrected, the well shall be plugged and abandoned in compliance with R12-7-127.</p>
Temporary Abandonment/ Shut- in Status	Sundry Notices and Reports on Wells, Form 25	<p>R12-7-125. Temporarily Abandoned and Shut-in Wells</p> <p>A. If drilling, injection, or production operations at a well are suspended, or have been suspended for 60 days, an operator shall plug the well under R12-7-127 unless the Commission permits the well to be temporarily abandoned or shut-in. The Commission shall not classify a well as shut-in until the operator submits a completion report under R12-7-121.</p> <p>B. An operator may temporarily abandon or shut-in a well for up to 5 years if the operator demonstrates to a quorum of the Commission a future beneficial use of the well and submits a Sundry Notice to the Commission containing the following information:</p> <ol style="list-style-type: none"> 1. Evidence of casing integrity as required in R12-7-112 including a complete description of the current casing, cementing, and perforation record of the well; 2. The stimulation and cement squeeze record and complete data on the results of any well tests performed to date; and 3. All other well data required in R12-7-121(A). <p>C. Before an approved time-frame for a temporarily abandoned or shut-in well expires, the operator shall return the well to beneficial use under a plan approved by the Commission, permanently plug and abandon the well, or apply for an extension to temporarily abandon or shut-in the well. If the integrity of the well casing is in question, the Commission may require the operator to:</p> <ol style="list-style-type: none"> 1. Prove casing integrity in accordance with R12-7-112; 2. Plug any well that fails to meet the casing integrity required by R12-7-112; and 3. Re-test the well in accordance with R12-7-150 to continue shut-in status. <p>D. An operator shall ensure that no work begins on a temporarily abandoned or shut-in well until approved by the Commission. The operator shall give at least 24 hours' notice to the Commission before any work begins. Within 15 days of completing the proposed work, the operator shall file a written report with the Commission fully describing the work performed including a copy of all test rates, pressures, and fluid analyses.</p>
Well Plugging	<p>Application to Plug and Abandon, Form 09</p> <p>Plugging Record, Form 10</p>	<p>R12-7-126. Application to Plug and Abandon</p> <p>A. Before abandoning any well, the operator shall submit an application to plug and abandon to the Commission and obtain approval. The application shall set forth the name and location of the well, the mechanical condition of the well, the productive zone and latest production, and a complete description of the proposed work. The plan shall provide for the protection of all formations containing usable-quality water, oil, gas, or geothermal resources.</p> <p>B. In the case of a drilling well or an emergency, the application may be made by electronic communication, and the Commission may by electronic communication authorize the work; however, the operator shall file a written application within 10 days after the emergency authorization is given even though the work has already been commenced or completed. The Commission shall confirm the emergency authorization in writing upon receipt of the written application.</p> <p>R12-7-127. Plugging Methods and Procedures</p> <p>A. Before abandoning any well, the operator shall submit an application to plug and abandon to the Commission for approval as required in R12-7-126. All down-hole plugging shall be conducted through drill pipe or tubing, unless otherwise approved by the Commission.</p> <p>B. Open hole</p> <ol style="list-style-type: none"> 1. A cement plug shall be placed to extend at least 50 feet below the bottom, except as limited by total depth or plugged back total depth, to 50 feet above the top of any zone containing fluid with a potential to migrate, any zone of lost circulation, and any zone containing potentially valuable minerals, including noncommercial hydrocarbons, coal, and oil shale. 2. All freshwater zones shall be plugged with a continuous cement plug which shall extend from at least 50 feet below to at least 50 feet above the freshwater zone, or a 100-foot plug shall be centered across the base of the freshwater zone and a 100-foot plug shall be centered across the top of the freshwater zone. 3. Open hole below the shoe of cemented casing shall be plugged with cement which shall extend from at least 50 feet below to at least 50 feet above the shoe. <p>C. Cased hole</p> <ol style="list-style-type: none"> 1. A cement plug shall be placed opposite all open perforations and extend to a minimum of 50 feet below, except as limited by total depth or plugged back total depth, to 50 feet above the perforated interval. In lieu of the cement plug, a bridge plug may be placed within 50 to 100 feet above the open perforations and followed by at least 50 feet of cement. 2. If any casing is cut and recovered, a cement plug shall be placed to extend at least 50 feet above and below the stub. 3. No annular space that extends to the surface shall be left open to the drilled hole below. If this condition exists, a minimum of the top 100 feet of

		<p>each annulus shall be plugged with cement.</p> <p>D. Plugging mud having the proper weight and consistency to prevent movement of other fluids into or within the bore hole shall be placed across all intervals not plugged with cement. In the absence of other information at the time plugging is approved, plugging mud shall be made up with a minimum of 15 pounds per barrel of sodium bentonite and a nonfermenting polymer, have a minimum consistency of 9 pounds per gallon, a minimum viscosity of 50 seconds per quart, and mixed with fresh water.</p> <p>E. A cement surface plug of at least 50 feet shall be placed in the smallest casing which extends to the surface. The top of this plug shall be placed as near the eventual casing cut-off point as possible.</p> <p>F. The abandoned well shall be marked by a piece of metal pipe not less than 4 inches in diameter securely set in cement and extending at least 4 feet above the general ground level. The well location and identity shall be permanently inscribed as required in R12-7-106(A). An abandoned well location on tilled or otherwise unique land shall be marked in a manner approved by the Commission.</p> <p>G. The drill site of an abandoned well shall be restored as nearly as possible to its natural state, to the satisfaction of the Commission. All pits shall be filled and all equipment and debris shall be removed from the location.</p> <p>H. The operator shall notify the Commission at least 48 hours before starting abandonment operations to allow a representative of the Commission to witness the operations required in this Section. To ensure the integrity or placement of any plug, the representative may order the plug to be tested.</p> <p>I. Within 15 days after the plugging of any well, the operator shall file with the Commission a plugging record setting forth in detail the method used in plugging the well, including the casing record; the size, kind, and depth of plugs used; and the name and depth interval of each formation containing fresh water, oil, gas, or geothermal resources.</p> <p>J. Seismic shot holes</p> <ol style="list-style-type: none"> 1. All seismic shot holes shall be plugged and abandoned within 30 days of firing. 2. Seismic shot holes which do not encounter freshwater zones shall be filled with a high-grade bentonite slurry or some other comparable plugging material as approved by the Commission. 3. Seismic shot holes which do encounter freshwater zones shall be plugged with cement in accordance with the applicable provisions of subsections (B) and (D). 4. Seismic shot-hole locations shall be restored in accordance with subsection (G) and the operator shall file a plugging record in accordance with subsection (I).
Tanks		<p>R12-7-119. Wellhead and Lease Equipment</p> <p>B. The operator shall produce flowing oil wells into tanks equipped with high-low pressure and high-low level shut-in controls and shall install a safety valve that automatically closes on the wellhead in the event of surface production equipment malfunctions.</p> <p>C. The operator shall equip artificial lift wells with wellhead safety sensors to shut off the source of power in the event of abnormally high or low flowline pressures.</p> <p>R12-7-143. Oil Tanks, Fire Walls, and Fire Hazards</p> <p>A. Oil shall not be stored or retained in an earthen reservoir or an open receptacle. The Commission may require dikes or fire walls to protect life, health, or property. All dikes or fire walls shall be erected and continuously maintained around all permanent oil tanks or batteries that are within the corporate limits of any city, town or village, or where such tanks are closer than 150 feet to any highway or inhabited dwelling, or closer than 1,000 feet to any school or church. The capacity of the dike or firewall shall be 1 1/2 times the capacity of the tank or tanks that it surrounds. The reservoir so formed within the dike shall be kept free from vegetation, water and oil.</p> <p>B. Anything that might constitute a fire hazard, including potentially flammable items and reckless behavior such as smoking, shall be moved at least 150 feet from the well, tanks, separator, or other equipment.</p>
Pits		<p>R12-7-108. Pit for Drilling Mud and Drill Cuttings</p> <p>A. Each operator shall maintain an adequate supply of drilling mud to confine oil, gas, or water to its native stratum during the drilling of any well and shall provide, before drilling is commenced, an adequate pit, either earthen or portable, for the drilling mud or the accumulation of drill cuttings.</p> <p>B. An earthen pit used for drilling, deepening, testing, reworking, or fracturing shall be constructed of or sealed with an impervious material and shall be maintained to prevent escape of any contained substance. Earthen pits shall be fenced on all sides at all times.</p> <p>C. Earthen pits shall be constructed and maintained to prevent the entrance of outside runoff water and the fluid level in earthen pits shall be kept at all times at least 18 inches below the lowest point of the embankment.</p> <p>D. Any mud contained in an earthen pit shall be water-based and contain no more than one pound per barrel of thinner for each 25 pounds per barrel of barite or hematite. Mud containing chromium lignosulfonate, ferrochrome lignosulfonate or other chromium compounds shall not be used.</p> <p>E. Drilling mud shall be disposed of by either recycling or commercial off-site disposal. Mud described in subsection (D) may be disposed of by evaporation and subsequent leveling of the pits.</p>
Exempt Waste Handling		No specific regulation
Spills		<p>R12-7-120. Notification of Fire, Leaks, Spills, and Blowouts</p> <p>A. Each operator shall notify the Commission within 24 hours of any fire, break, leak, spill, overflow, or blowout that occurs at any oil, gas, or geothermal drilling, producing, or transportation facility, or at any injection, disposal, or storage facility.</p> <p>B. Each operator shall file a final written report within 15 days of resolving incidents described in subsection (A) giving the location by quarter-quarter section, township, and range; date and time of occurrence; specific nature and cause of the incident; resultant damage; action taken to correct the situation and prevent</p>

its reoccurrence; and losses of hydrocarbons or geothermal resources.

R12-7-140. Pollution, Surface Damage, and Noise Abatement

- A. An operator of a well, production facility, gasoline plant, gas plant, or pipeline shall conduct operations in a manner that prevents surface or subsurface pollution.
- B. An operator shall conduct operations in a manner that prevents oil, gas, salt water, fracturing fluid or any other substance from polluting any surface or subsurface waters.
- C. During swabbing and bailing operations or when purging a well, all substances removed from the bore hole shall be placed in a pit or tank and shall not be allowed to pollute any surface or subsurface waters.
- D. An operator shall maintain all wellhead connections, surface equipment, lease flow lines, and tank batteries at all times to prevent the escape of oil, gas, produced water, or any other substance.
- E. An operator shall report any fire, leak, or blowout to the Commission in accordance with R12-7-120. An operator shall ensure that any pit is constructed and operated in accordance with R12-7-108.

Arkansas

Topic	Associated Forms	Regulations: http://www.aogc.state.ar.us/OnlineData/Forms/Rules%20and%20Regulations.pdf Excerpted Text by Topic																																													
Permitting	Notice of Intent to Drill for Oil and Gas, Form 1	<p>Arkansas Oil and Gas Commission General Rules and Regulations RULE B-1 - APPLICATION TO DRILL</p> <p>Before any person, firm or corporation shall spud in and begin the actual drilling of any well in search of oil and/or gas in the State of Arkansas, such person, firm or corporation shall file with the Oil and Gas Commission its application in such form as the Commission shall require for a permit to drill said well. The application shall be accompanied by the sum of Three Hundred Dollars (\$300.00), as the Commission shall prescribe as the fee for granting of a permit. [Order Reference Number 154-2000-11(8) authorized the Commission to increase the fee for a permit to drill from \$150.00 to \$300.00 effective January 1, 2001.] The permit so issued by the Commission shall be in such form as it may by its rules and regulations prescribe, and the number of said permit shall at all times be prominently displayed upon the derrick used in drilling of the well.</p>																																													
Well Treatment, Stimulation and Fracturing		<p>No specific regulation located</p>																																													
Well Construction	Producer's Well Completion and Recompletion Report, Form 3	<p>RULE B-15 - CASING REQUIREMENTS</p> <p>a. In all established fields, casing requirements shall be governed by the specific field rules for that field, and are not superceded by this rule.</p> <p>b. All fresh water sands shall be fully protected by the setting and cementing of surface casing to prevent the fresh water sands from becoming contaminated with oil, gas, or salt water. Surface casing shall be set and cement circulated to surface utilizing the pump and plug method. Cement shall be allowed to set a minimum of twelve (12) hours.</p> <p>1) The minimum surface casing requirements for wildcat wells or wells not covered by field rules, in the counties of Ashley, Bradley, Calhoun, Columbia, Hempstead, Lafayette, Miller, Nevada, Ouachita, and Union, are as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">TVD of well</th> <th>Amount of Surface Casing</th> </tr> </thead> <tbody> <tr> <td>0'</td> <td>- 3,000'</td> <td>100'</td> </tr> <tr> <td>3,001'</td> <td>- 4,000'</td> <td>160'</td> </tr> <tr> <td>4,001'</td> <td>- 5,000'</td> <td>300'</td> </tr> <tr> <td>5,001'</td> <td>- 6,500'</td> <td>500'</td> </tr> <tr> <td>6,501'</td> <td>- 7,500'</td> <td>750'</td> </tr> <tr> <td>7,501'</td> <td>- 8,500'</td> <td>1,000'</td> </tr> <tr> <td>8,501'</td> <td>-10,500'</td> <td>1,250'</td> </tr> <tr> <td>10,501'</td> <td>& below</td> <td>1,500'</td> </tr> </tbody> </table> <p>2) The minimum surface casing requirements for wildcat wells or wells not covered by field rules, in the counties of Crawford, Franklin, Johnson, Logan, Madison, Pope, Scott, Sebastian, Washington, and Yell, are as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">TVD of Well</th> <th>Amount of Surface Casing</th> </tr> </thead> <tbody> <tr> <td>0'</td> <td>- 1,500'</td> <td>100'</td> </tr> <tr> <td>1,501'</td> <td>- 3,000'</td> <td>200'</td> </tr> <tr> <td>3,001'</td> <td>- 6,500'</td> <td>500'</td> </tr> <tr> <td>6,501'</td> <td>-10,000'</td> <td>800'</td> </tr> <tr> <td>10,001'</td> <td>& below</td> <td>1,000'</td> </tr> </tbody> </table> <p>3. The minimum surface casing requirements for wildcat wells or wells not covered by field rules, in the counties of Cleburne, Conway, Faulkner, Independence, Jackson, Searcy, Stone, Van Buren, and White, shall be to a depth of 500 feet or the top of the Paleozoic age rock sequence, whichever is greater.</p> <p>4. The minimum surface casing requirements for wildcat wells or wells not covered by field rules, in the counties of Arkansas, Lonoke, Monroe, Prairie, and Woodruff, shall be to a depth of 1,250 feet.</p> <p>5. The minimum surface casing requirements for wildcat wells or wells not covered by field rules, in the counties of Crittenden, Cross, Lee, Phillips and St. Francis, shall be to a depth of 2,000 feet.</p> <p>c. A producing string of casing shall be set at least to the top of the producing formation and shall be cemented so that the calculated fill, after allowing for twenty-five percent excess, will be at least two hundred fifty feet above the top of any productive interval. Cementing shall be done by the pump and plug method. Cement shall be allowed to set a minimum of twenty-four (24) hours before drilling the plug.</p> <p>d. The Director may grant exceptions to the above requirements if conditions exist that require more than these requirements for the purpose of safety or for the protection of fresh water sands and oil or gas bearing sands or may establish minimum surface casing requirements in future producing areas not covered by this rule.</p>	TVD of well		Amount of Surface Casing	0'	- 3,000'	100'	3,001'	- 4,000'	160'	4,001'	- 5,000'	300'	5,001'	- 6,500'	500'	6,501'	- 7,500'	750'	7,501'	- 8,500'	1,000'	8,501'	-10,500'	1,250'	10,501'	& below	1,500'	TVD of Well		Amount of Surface Casing	0'	- 1,500'	100'	1,501'	- 3,000'	200'	3,001'	- 6,500'	500'	6,501'	-10,000'	800'	10,001'	& below	1,000'
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<p>Temporary Abandonment/ Shut- in Status</p>		<p>RULE B-7 - WHEN WELLS SHALL BE PLUGGED AND ABANDONED AND NOTICE OF INTENTION TO PLUG AND ABANDON WELLS</p> <p>a) The current permit holder is responsible for plugging wells as defined in this rule. In the case of leaking wells, plugging responsibility is in accordance with General Rule B-26 (k) and (l).</p> <p>b) All new wells drilled for oil, gas, or brine exploration, oil, gas or brine production, water supply or injection purposes, except such holes as are described in Rule B-10, regardless of depth are required to be either properly cased with production casing or the uncased well or dry hole shall be plugged and abandoned in accordance with subparagraph (c) below and in accordance with the procedure described in Rule B-8.</p> <p>c) Uncased wells and dry holes</p> <p>1) Any well in which production casing is not set and cemented shall be plugged in accordance with General Rule B-8 prior to the time that the equipment used to drill said well is released from the drilling operation, unless an extension of time has been granted by the Director. In determining whether to grant an extension and in determining the length of an extension, the Director will consider:</p> <p>A) The permit holders specific plans for further wellbore utilization, B) The total depth of the well, C) The depth of surface casing, D) A description of the current condition of the hole including a description of the type of drilling fluids currently in the well, E) The location of the well.</p> <p>2) If the Director determines that the uncased well presents a risk of contamination to the environment or a risk to public safety the Permit Holder shall be required to repair, case, plug or perform other remediation measures to the well, as determined by the Director, within twenty four (24) hours after notification by the Director.</p> <p>d) All cased wells utilized for oil, gas or brine production, water supply or injection purposes, except such holes as are described in Rule B-10, shall be plugged and abandoned in accordance with General Rule B-8, when no longer used for the wells intended purpose or, at the discretion of the Director, when the well has been idle for more than 24 months or sooner should the Director determines that the cased well presents a risk of contamination to the environment or a risk to public safety. Upon such determination by the Director, the Permit Holder shall commence plugging the well within 30 days after notification by the Director.</p>
<p>Well Plugging</p>	<p>Application to Plug, Form 11</p> <p>Plugging Record, Form 12</p>	<p>RULE B-6 - OIL, GAS AND WATER TO BE PROTECTED</p> <p>Before any well or any producing horizon encountered therein shall be abandoned, the owner or operator shall use such means, methods and procedures as may be necessary to prevent water from entering any oil or gas-bearing formations, and to protect any underground or surface water that is suitable for domestic or irrigation purposes from waste, downward drainage, harmful infiltration and addition of deleterious substances.</p> <p>RULE B-8 - PLUGGING METHODS AND PROCEDURES</p> <p>The methods and procedures for plugging a well shall be as follows:</p> <p>A. The bottom of the hole shall be filled to the top of each producing stratum and a cement plug of not less than one hundred (100) feet in length shall be placed inside the casing immediately above each producing stratum; or a bridge plug, regular or wireline type, may be placed at the top of each producing stratum. In the event bridge plugging is to be used for permanent abandonment, the bridge plug must be covered with a minimum of ten (10) feet of cement; the casing must be free from openings, except perforations for the injection or producing formation and the casing well bore annulus must be filled with cement to fifty (50) feet above the top of the formation.</p> <p>B. A cement plug not less than one hundred (100) feet in length shall be placed at approximately fifty (50) feet below all fresh water-bearing stratum when the surface casing is not cemented below the base of the fresh water-bearing stratum. In the event the surface casing has been cemented below the base of the fresh water-bearing stratum, a one hundred (100) foot cement plug shall be placed inside the base of the surface casing.</p> <p>C. A plug shall be placed at the surface of the ground in each hole plugged in such manner as not to interfere with soil cultivation.</p> <p>D. The interval between plugs shall be filled with an approved heavy mud-laden fluid.</p> <p>E. An uncased rotary drilling hole shall have a cement plug of not less than one hundred (100) feet placed immediately above (1) the Smackover limestone zone and (2) any known productive zone in the area, and the hole shall be filled with approved heavy mud up to the base of the surface casing and a plug of not less than one hundred (100) feet of cement placed inside the base of the surface casing, provided the casing is cemented through the base of the fresh water-bearing stratum. A cement plug of not less than one hundred (100) feet in length shall be placed at a point fifty (50) feet below the base of the fresh water-bearing stratum in the event the surface casing is not cemented through the base of the fresh water-bearing stratum. The hole shall be capped similar to other abandoned holes.</p> <p>F. Any other method approved by the Commission may be used.</p>
<p>Tanks</p>		<p>RULE B-26 - GENERAL LEASE OPERATING REQUIREMENTS</p> <p>c) Crude Oil Tank Batteries</p> <p>1) All existing and newly constructed tank batteries shall be registered with the Commission and assigned a Commission registration number. Registration shall be reported to the Commission utilizing information as reported on the existing AOGC Form 6 Monthly Producers Report.</p> <p>2) All tank battery registrations, shall be transferred, at the time of associated well transfers, utilizing the approved notice of well transfer forms filed with the Commission.</p> <p>3) Each tank battery shall have a legible sign in a conspicuous place on or near the crude oil storage tank(s). The sign shall show the name of the Permit Holder who holds the Commission permit to operate the lease or unit, the lease name, the section, township and range, and a telephone number at which the Permit Holder or his authorized agent can be reached during an emergency.</p> <p>4) All tank batteries consisting of tanks containing produced fluids or crude oil storage tanks or containing tanks equipped to receive produced fluids, shall be surrounded by containment dikes or other containment structures as may be appropriate under the circumstances, as approved by the Director. All containment dikes or other approved structures shall be constructed or installed in accordance with sub-paragraph (e) below.</p> <p>5) Tank batteries constructed after the effective date of this rule, shall not be located:</p> <p>A) within 200 feet of an existing occupied habitable dwelling, unless the current owner of the structure has provided a written waiver</p>

consenting to the construction closer than 200 feet, in which case the tank battery shall be completely fenced to prevent unauthorized access; however, in no event may a tank battery be constructed closer than 100 feet to an existing habitable dwelling; or

B) within 300 feet of a school, hospital or other type of public use building as defined in Arkansas Fire Prevention Code Section 3406.3.1.3.1;

or

C) within 300 feet of a stream or river designated as an Extraordinary Resource Water (ERW), Natural and Scenic Waterways or Ecological Sensitive Waterbodies as defined by APC&E Regulation 2, or within 200 feet of other streams, waterways, rivers, ponds, lakes, wetlands (unless approved by other appropriate governmental agencies), or other bodies of water (as indicated by a blue line designation on a 7.5 minute USGS Topographic Map), unless the Permit Holder utilizes additional containment measures other than the required containment specified in sub-paragraph (e) below, as approved by the Director.

6) Tanks or any part of such tanks shall not be buried below the ground surface.

7) All tanks shall be maintained in a leak-free condition.

8) All open top tanks shall be covered with bird netting, or other system designed to keep birds and flying mammals from landing in the tank.

d) Gas Well Produced Fluids Storage Tanks

1) Tanks or any part of such tanks shall not be buried below the ground surface.

2) All tanks shall be maintained in a leak-free condition.

3) All open top tanks shall be covered with bird netting, or other system designed to keep birds and flying mammals from landing in the tank.

4) Tanks constructed after the effective date of this rule, shall not be located:

A) within 200 feet of an existing occupied habitable dwelling, unless the current owner of the structure has provided a written waiver consenting to the construction closer than 200 feet, in which case the tank battery shall be completely fenced to prevent unauthorized access; however, in no event may a tank battery be constructed closer than 100 feet to an existing habitable dwelling; or

B) within 300 feet of a school, hospital or other type of public use building as defined in Arkansas Fire Prevention Code Section 3406.3.1.3.1;

or

C) within 300 feet of a stream or river designated as an Extraordinary Resource Water (ERW), Natural and Scenic Waterways or Ecological Sensitive Waterbodies as defined by APC&E Regulation 2, or within 200 feet of other streams, waterways, rivers, ponds, lakes, wetlands (unless approved by other appropriate governmental agencies), or other bodies of water (as indicated by a blue line designation on a 7.5 minute USGS Topographic Map), unless the Permit Holder utilizes additional containment measures other than the required containment specified in sub-paragraph (e) below, as approved by the Director.

5) All tanks containing produced fluids or equipped to receive produced fluids shall be surrounded by containment dikes or other containment structures as may be appropriate under the circumstances, as approved by the Director. All containment dikes or other approved structures shall be constructed or installed in accordance with sub-paragraph (e) below.

e) Containment Dikes or Other Containment Structures

1) All Crude Oil Tank Batteries and Gas Well Produced Fluids Storage Tanks shall be surrounded by containment dikes or such other structure as may be appropriate under the circumstances, as approved by the Director to prevent waste, protect life, health or property, unless an exception is granted by the Commission following notice and hearing.

2) Required containment dikes or other approved structures shall be designed to have a capacity of at least 1½ times the largest tank the containment dike or approved structure surrounds.

3) The natural or man-made material utilized for the construction of the required containment dikes or other approved structures and the natural or man-made material used to line the bottom of the containment area shall be sufficiently impervious so as to contain fluids and resist erosion.

4) Vegetation on the top and outside surface of containment structures shall be properly maintained so as to not pose a fire hazard.

5) The area within the containment dike or other approved containment structure shall be kept free of excessive vegetation, stormwater, produced fluids, other oil and gas field related debris, general trash, or any flammable material. Drain lines installed through the firewall, for the purpose of draining stormwater, shall have a valve installed which shall remain closed and capped when not in use. Any fluids collected, spilled or discharged within such containment structures shall be removed as soon as practical, using the following proper disposal methods:

A) Stormwater, which has not been mixed with non-exempt RCRA waste as defined by the EPA, may be drained from the containment structure provided the following conditions are met:

i) the chloride content shall not exceed applicable state water quality standards.

ii) there must be no visible evidence of hydrocarbons or hydrocarbon sheen present;

iii) the discharge shall only take place during daylight hours;

iv) a representative of the Permit Holder must be present during discharge; and

v) the Permit Holder shall maintain a record of each stormwater discharge, occurring in the previous 6 month period, and which shall be available for review upon request by Commission staff. The record shall indicate the location, quantity, chloride content, presence of any hydrocarbons (sheen), and date of discharge.

B) Produced fluids which have not been mixed with non-exempt RCRA waste as defined by the USEPA, may be recycled through the production equipment or removed from the containment structure and disposed in a properly permitted Class II UIC Well.

C) All stormwater and produced fluids which have been mixed with non-exempt RCRA waste as defined by the USEPA shall be removed and disposed in accordance with applicable Pollution Control and Ecology Commission regulations, as administered by ADEQ.

D) Crude oil bottom sediments (BS&W) may be:

i) applied on oil field lease roads under the following conditions:

a) application shall be in such a manner as to avoid runoff onto immediately adjacent lands or into waters of the State;

and

b) immediately following completion of the application, all liquid fractions shall be immediately incorporated into the road bed with no visible free-standing oil; and

c) no lease road shall be oiled more than twice a year; and

d) no lease road shall be oiled during precipitation events; and

e) the applied BS&W shall not have a produced water content greater than ten percent (10%) free water by volume; or

ii) injected into an inactive oil and gas production well;

		<p>a) which has been equipped with tubing and packer, for the purpose of said injection, the packer to be set within the production casing, at least fifty (50) feet below the top of the production casing cement, but no less than five hundred (500) feet below the base of the deepest USDW, and</p> <p>b) injection of the BS&W shall not exceed 45 days, after which time the well shall be immediately plugged in accordance with General Rule B-8, and</p> <p>c) if the Director determines through field observations that the injection activities are endangering the USDW, the injection activities shall cease until the condition is corrected.</p> <p>6) Any residual produced fluids remaining within the containment dike, after removal, as required in subsection (e) (5) above, shall be remediated in place in accordance with General Rule B-34.</p> <p>7) Any spill, leak or discharge of produced fluids escaping from a containment dike shall be reported and remediated in accordance with General Rule B-34.</p> <p>8) When a Crude Oil Tank Battery, Gas Well Produced Fluids Storage Tank or a gas well separator is removed, the Permit Holder shall remove all above ground piping and flowlines coming into said tanks or separator and cap all below ground piping and flowlines, level and grade soil portion of the containment dikes, remove from site all non-soil containment structure construction material, and remediate all hydrocarbon contaminated soil at tank or separator site in accordance with General Rule B-34.</p>
Pits		<p>RULE B-26 - GENERAL LEASE OPERATING REQUIREMENTS</p> <p>j) Production Pits</p> <p>1) "Production Pit", as used in this Section, is an earthen surface impoundment, whether a man-made excavation or a diked area which was or currently is used for temporary storage of produced fluids prior to disposal.</p> <p>2) Construction of production pits, other than those pits previously authorized by Commission Orders are prohibited.</p> <p>3) All other production pits in existence as of the effective date of this rule shall cease to be used on the effective date of this rule and closed within 90 days after the effective date of this rule in a manner prescribed by the Commission and in accordance with all applicable state laws and regulations, unless exempted in accordance with subsection (4) below.</p> <p>4) Any production pit in existence as of the effective date of this rule, may not be subject to closure in accordance with subsection (j) (3) above if:</p> <p>A) the pit is no longer used for temporary storage of produced fluids; and</p> <p>B) the water quality in the pit is less than 1500 TDS with no visible sheen of oil; and</p> <p>C) a written, notarized authorization from the current surface owner has been received by the Director requesting the pit not be closed and demonstrating an acceptable alternative use for the pit; and</p> <p>D) in determining not to require the pit be closed, the Director shall:</p> <p>i) review the current location of the pit relative to any ongoing production operations in the area; and</p> <p>ii) review the proposed alternative use relative to public health and safety considerations and potential use for agricultural, recreational or wildlife habitat purposes.</p> <p>E) If the Director determines, based on a review of the information submitted by the operator and surface owner, the pit is not exempted, the pit shall be closed, within six (6) months, by the operator, in accordance with subsection (3) above.</p>
Exempt Waste Handling	Request for Disposal of Reserve Pit Fluids (Waste Produced During Drilling), Form 20	<p>RULE C-7 - DISPOSAL OF SALT WATER</p> <p>A. Application, Approval and Place of Disposal.</p> <p>Salt water or other water containing minerals in such amount as to be unfit for domestic, stock, irrigation, or other general uses, upon application to, and approval by the Commission may be disposed of by injection into the following formations:</p> <p>1. Non-producing zones of oil or gas-bearing formations that contain water mineralized by processes of nature to such a degree that the water is unfit for domestic, stock, irrigation, or other general use.</p> <p>2. All non-producing formations, containing water mineralized by processes of nature to such a degree that water is unfit for domestic, stock, irrigation or other general uses; provided, that before such formations are approved for disposal use, it shall be ascertained that they are separated from fresh water formations by impervious beds which will give adequate protection to such fresh water formations, and that fresh water supplies contained by the proposed disposal formation near its outcrop shall be at a remote distance as not to be endangered by addition of mineralized water in the proposed disposal wells.</p> <p>The Commission, in passing upon applications for the use of non-producing formations for disposal formations, will be advised by the technical recommendations of the State Geological Survey and the State Board of Health in determining whether such formations may be safely and legally used.</p> <p>3. Each application shall be accompanied by evidence satisfactory to the Commission of the financial responsibility of the applicant to plug and abandon the disposal well or wells by the method and procedure required by the Commission or the applicant shall be required to furnish a good and sufficient bond therefor in an amount to be determined by the Commission but not to exceed the principal sum of One Hundred Thousand and No/100 Dollars (\$100,000.00) conditioned upon the performance of such duty to plug each well to be abandoned.</p> <p>RULE B-26 - GENERAL LEASE OPERATING REQUIREMENTS</p> <p>e) Containment Dikes or Other Containment Structures</p> <p>5) The area within the containment dike or other approved containment structure shall be kept free of excessive vegetation, stormwater, produced fluids, other oil and gas field related debris, general trash, or any flammable material. Drain lines installed through the firewall, for the purpose of draining stormwater, shall have a valve installed which shall remain closed and capped when not in use. Any fluids collected, spilled or discharged within such containment structures shall be removed as soon as practical, using the following proper disposal methods:</p> <p>B) Produced fluids which have not been mixed with non-exempt RCRA waste as defined by the USEPA, may be recycled through the production equipment or removed from the containment structure and disposed in a properly permitted Class II UIC Well.</p> <p>C) All stormwater and produced fluids which have been mixed with non-exempt RCRA waste as defined by the USEPA shall be removed and</p>

		<p>disposed in accordance with applicable Pollution Control and Ecology Commission regulations, as administered by ADEQ.</p> <p>D) Crude oil bottom sediments (BS&W) may be:</p> <p>i) applied on oil field lease roads under the following conditions:</p> <p>a) application shall be in such a manner as to avoid runoff onto immediately adjacent lands or into waters of the State; and</p> <p>b) immediately following completion of the application, all liquid fractions shall be immediately incorporated into the road bed with no visible free-standing oil; and</p> <p>c) no lease road shall be oiled more than twice a year; and</p> <p>d) no lease road shall be oiled during precipitation events; and</p> <p>e) the applied BS&W shall not have a produced water content greater than ten percent (10%) free water by volume; or</p> <p>ii) injected into an inactive oil and gas production well:</p> <p>a) which has been equipped with tubing and packer, for the purpose of said injection, the packer to be set within the production casing, at least fifty (50) feet below the top of the production casing cement, but no less than five hundred (500) feet below the base of the deepest USDW, and</p> <p>b) injection of the BS&W shall not exceed 45 days, after which time the well shall be immediately plugged in accordance with General Rule B-8, and</p> <p>c) if the Director determines through field observations that the injection activities are endangering the USDW, the injection activities shall cease until the condition is corrected.</p> <p>6) Any residual produced fluids remaining within the containment dike, after removal, as required in subsection (e) (5) above, shall be remediated in place in accordance with General Rule B-34.</p> <p>7) Any spill, leak or discharge of produced fluids escaping from a containment dike shall be reported and remediated in accordance with General Rule B-34.</p> <p>8) When a Crude Oil Tank Battery, Gas Well Produced Fluids Storage Tank or a gas well separator is removed, the Permit Holder shall remove all above ground piping and flowlines coming into said tanks or separator and cap all below ground piping and flowlines, level and grade soil portion of the containment dikes, remove from site all non-soil containment structure construction material, and remediate all hydrocarbon contaminated soil at tank or separator site in accordance with General Rule B-34.</p>
<p>Spills</p>	<p>Fire-Leak-Spill-Blowout Incident Report, Form 24</p>	<p>RULE B-34 - NOTICE OF FIRE, BREAKS, OR BLOW-OUTS AND REMEDIATION OF ASSOCIATED SPILLS OF CRUDE OIL AND PRODUCED WATER</p> <p>a) Definitions for purposes of this rule</p> <p>1) "Permit Holder" shall mean the operator or person, who is duly authorized to develop a lease or unit as owner or through agreement and has the right to drill and produce from any field or reservoir and to appropriate the production for himself or others.</p> <p>b) Notification</p> <p>1) Any Permit Holder of an oil, gas and brine production, UIC Class II, and Class V (brine disposal) well or an owner or operator of tanks, storage tanks, or other receiving and storage receptacles into which crude oil is produced, received, or stored, or through which oil is transported in flowlines, shall immediately, but not more than twenty-four (24) hours, notify the Commission Regional Office, where the event has occurred, by telephone or facsimile concerning all fires, blow-outs, spills, leaks or discharges in excess of one (1) barrel of crude oil or five (5) barrels of produced water, which occur at these facilities.</p> <p>2) All notices of fires, blowouts, spills, leaks, or discharges provided to the Commission Regional Office, shall include the name of the operator responsible and the location of the fire, blow-out, spill leak, or discharge by providing the Section, Township, Range and property, lease, or unit, name. Such report shall also specify what emergency steps have been taken or are in progress to remedy the situation reported.</p> <p>3) If the reported fire, blow-out, spill, leak, or discharge results in a spill or discharge in excess of one (1) barrel of crude oil and or five (5) barrels of produced water outside the containment, the Permit Holder shall also provide the following in the required written incident report, on a form prescribed by the Director:</p> <p>A) the amount of crude oil and produced water spilled or discharged,</p> <p>B) the areal extent of the spill or discharge,</p> <p>C) the cause of the spill or discharge, and</p> <p>D) the proposed remediation efforts.</p> <p>4) Spills or discharges from interstate and intrastate pipeline (downstream from custody transfer), or from refined product pipelines are not covered by this rule and are under the jurisdiction of the Arkansas Department of Environmental Quality (ADEQ).</p> <p>5) All crude oil and produced water spills or discharges, regardless of amount, which enter waters of the state as defined in Ark. Code Ann. § 8-4-102 shall be reported immediately to the ADEQ. That portion of the spill which entered waters of the state shall be under the jurisdiction of the ADEQ for remediation and enforcement purposes.</p> <p>c) Crude Oil Spill Remediation Requirements</p> <p>1) All crude oil spills that occur after the effective date of this rule, regardless of amount, from wells, flowlines, tanks, pits or containment dikes are subject to this rule.</p> <p>2) The Permit Holder is required to initiate the following emergency response procedures for all crude oil spills immediately after a spill has occurred, but not more than 24 hours after the spill:</p> <p>A) Contain spilled crude oil using earthen dikes, booms and other containment measures to minimize the amount of area affected by the spill.</p> <p>B) If a spill enters surface waters, the spill shall be contained with booms and/or underflow dams and removed as expeditiously as possible. Further remediation requirements shall be determined by ADEQ in accordance with sub-paragraph (a) (5) above.</p> <p>C) The cause of spill shall be repaired immediately.</p> <p>D) Impounded free oil shall be picked up and put in lease storage tanks or removed from the site and recycled.</p> <p>3) Remaining oil on the land surface shall be removed using absorbent material, which shall be handled as follows:</p> <p>A) All non-organic/non-biodegradable absorbent materials shall be removed from the site and disposed of at an ADEQ permitted waste treatment or disposal facility or other disposal options as allowed by applicable state law or regulation.</p>

		<p>B) On-site disposal of organic/biodegradable absorbent materials, such as straw and peat moss, may be disposed through land spreading over the area affected by the initial spill and remediated in accordance with sub-paragraphs (4) (A) thru (D) below.</p> <p>4) Contaminated soil area affected by a spill may be remediated in place and shall, within 10 days, at a minimum be:</p> <p>A) fertilized with 13-13-13 fertilizer or an amount of other acceptable fertilizer sufficient to treat the soil with 0.5 lbs per square yard; and</p> <p>B) limed with sufficient agricultural grade lime over the affected area in order to maintain a pH of between 6-8; if the pH of the soil/oil mixture is less than 6, additional lime shall be incorporated to increase pH above 6; and</p> <p>C) tilled to a depth of at least 4 inches but no greater than 12 inches to create a soil and crude oil mixture that contains less than 5% total petroleum hydrocarbon (TPH) following the completion of the initial tilling; and</p> <p>D) watered to maintain soil moisture sufficient to promote plant growth (if extremely dry soil conditions exist); and</p> <p>E) stabilized to minimize erosion and run-off of stormwater to prevent violation of applicable water quality standards.</p> <p>F) If the soil in the affected area is frozen or previously saturated due to rain or snow melt, prohibiting compliance with sub-paragraphs (A) thru (E) above, the Permit Holder shall stabilize the area to prevent any surface run-off of crude oil from leaving the affected area until conditions permit compliance with sub-paragraphs (A) thru (E) above.</p> <p>G) The soil affected by the spill must contain less than 1% TPH within 12 months after the date of the spill.</p> <p>H) The Director may require additional remediation action to be taken by the operator, which may include flushing of the area with freshwater (which shall be collected and disposed in a UIC Class II well), the addition of organic material (e.g., peat moss, straw), chemical treatment, additional disking of the soil or soil and absorbent material removal if the soil and/or absorbent material within the spill area cannot meet the TPH standard specified in sub-paragraph (c)(4)(C) above.</p> <p>I) Contaminated soils removed from the site for off-site disposal shall be disposed of at an Arkansas Department of Environmental Quality permitted landfill permitted to receive such waste other ADEQ permitted surface waste treatment or disposal facility or as required by applicable state law or regulation.</p> <p>5) If a spill enters a public road ditch, visible crude oil-contaminated soil shall be removed from the roadside ditch and:</p> <p>A) removed from the site in accordance with sub-paragraph (c)(4)(I) above; or</p> <p>B) incorporated into the non-road ditch area of the spill and remediated in accordance with sub-paragraph (c)(4)(A) thru (E) above.</p> <p>6) The Permit Holder shall be required to submit on request, or within 15 days after the spill occurred, on a form prescribed by the Director, the following information:</p> <p>A) a topographic map showing the areal extent of the spill and the proximity of surface waters;</p> <p>B) the type of soil and current land use;</p> <p>C) the TPH content in the spill area;</p> <p>D) explanation of the cause of the spill, and planned efforts to prevent and minimize the effects of future spills at the site.</p> <p>E) Additional reports are required each 90 days until the spill remediation is completed and approved by the Director.</p> <p>7) The Commission after notice and hearing shall have the authority to amend the above remediation methodology, or approve alternative remediation methodologies if those methods achieve the same or higher standard of spill remediation.</p> <p>d) Produced Water Spill Remediation Requirements</p> <p>1) All spills of produced water, which occur after the effective date of this rule, from wells, flowlines, pits, tanks or containment dikes, shall immediately, but not more than 24 hours be contained using earthen dikes and other containment measures to minimize the amount of area affected by the spill.</p> <p>2) All impounded produced water shall be picked up and removed from the site for disposal into an approved Class II UIC well, or recycled through the Permit Holder's production process.</p> <p>3) The affected area shall be limed with at least 50 lbs. of agricultural grade lime per 100 square feet of affected area and tilled to a depth of at least 4 inches.</p> <p>4) Based on the quantity and areal extent of the produced water spill, the proximity of the spill area to surface water features, the nature of the soil and land use of the area and any impact to public safety, the Director may require additional remediation action to be taken by the Permit Holder. These additional actions may include flushing of the area with freshwater (which shall be collected and disposed in a permitted Class II well), the addition of organic material (e.g., peat moss, hay, straw), additional chemical treatment, additional disking the soil, or soil removal. The operator shall be required to continue these corrective actions until the spill remediation efforts are deemed complete by the Director based on site specific conditions.</p>
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California		
Topic	Associated Forms	Regulations: http://www.consrv.ca.gov/dog/pubs_stats/Pages/law_regulations.aspx
		Excerpted Text by Topic
Permitting	<p>Notice of Intention to Drill New Well-Oil or Gas, Form OG105</p> <p>Notice of Intention to Rework/ Redrill Well, form OG107</p>	<p>California Laws for Conservation of Petroleum and Gas 3203 Notice of Intention to Drill</p> <p>(a) The operator of any well, before commencing the work of drilling the well, shall file with the supervisor or the district deputy a written notice of intention to commence drilling. Drilling shall not commence until approval is given by the supervisor or the district deputy. If the supervisor or the district deputy fails to give the operator written response to the notice within 10 working days from the date of receipt, that failure shall be considered as an approval of the notice and the notice, for the purposes and intents of this chapter, shall be deemed a written report of the supervisor. If operations have not commenced within one year of receipt of the notice, the notice shall be deemed canceled. The notice shall contain the pertinent data the supervisor requires on printed forms supplied by the division or on other forms acceptable to the supervisor. The supervisor may require other pertinent information to supplement the notice.</p> <p>(b) After the completion of any well, this section also applies as far as may be, to the deepening or redrilling of the well, any operation involving the plugging of the well, or any operations permanently altering in any manner the casing of the well. The number or designation of any well, and the number or designation specified for any well in a notice filed as required by this section, shall not be changed without first obtaining a written consent of the supervisor.</p> <p>(c) If an operator has failed to comply with an order of the supervisor, the supervisor may deny approval of proposed well operations until the operator brings its existing well operations into compliance with the order. If an operator has failed to pay a civil penalty, remedy a violation that it is required to remedy to the satisfaction of the supervisor pursuant to an order issued under Section 3236.5, or to pay any charges assessed under Article 7 (commencing with Section 3400), the supervisor may deny approval to the operator's proposed well operations until the operator pays the civil penalty, remedies the violation to the satisfaction of the supervisor, or pays the charges assessed under Article 7 (commencing with Section 3400).</p>
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	<p>Well Summary Report - Oil and Gas, Form OG100</p> <p>History of Oil or Gas Well, Form OG103</p>	<p>California Code of Regulations 1935. Casing Requirements.</p> <p>All wells shall be cased in such a manner as to protect or minimize damage to the environment, usable ground waters and surface waters (if any), geothermal resources, life, health and property. The permanent wellhead completion equipment shall be attached to the production casing or to the intermediate casing if production casing does not reach to the surface. Division specifications for casing strings shall be determined on a well-to-well basis. All casing strings reaching the surface shall provide adequate anchorage for blowout-prevention equipment, hole pressure control and protection for all natural resources. The following casing requirements are general but should be used as guidelines in submitting proposals to drill.</p> <p>1935.1. Conductor Pipe.</p> <p>Conductor pipe shall be cemented with sufficient cement to fill the annular space from the shoe to the surface. An annular blowout preventer, or its equivalent, approved by the Division, shall be installed on conductor pipe for exploratory wells and development wells when deemed necessary by the Division. The Division may waive this requirement for low-temperature geothermal wells. NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3739 and 3740, Public Resources Code.</p> <p>1935.2. Surface Casing.</p> <p>Surface casing shall provide for control of formation fluids, for protection of shallow usable groundwater, and for adequate anchorage for blowout prevention equipment. All surface casing shall be cemented with sufficient cement to fill the annular space from the shoe to the surface. The following requirements may be modified or waived by the Division for low-temperature geothermal wells.</p> <p>(a) Length of Surface Casing.</p> <p>(1) In areas where subsurface geological conditions are variable or unknown, surface casing in general shall be set at a depth equaling or exceeding 10 percent of the proposed total depths of wells drilled in such areas. A minimum of 60 meters (about 200 feet) and a maximum of 400 meters (about 1,300 feet) of surface casing shall be set.</p> <p>(2) In areas of known high formation pressure, surface casing shall be set at a depth determined by the Division after a careful study of geological conditions.</p> <p>California Laws for Conservation of Petroleum and Gas 3201 Supervisors Duties</p> <p>(a) The supervisor shall so supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines not subject to regulation</p>

		<p>pursuant to Chapter 5.5 (commencing with Section 51010) of Part 1 of Division 1 of Title 5 of the Government Code that are within an oil and gas field, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.</p> <p>(3) Within the confines of designated geothermal fields, the depth at which surface casing shall be set shall be determined by the Division on the basis of known field conditions.</p> <p>(b) Cementing Point for Surface Casing. Surface casing shall be cemented through a sufficient series of low permeability, competent lithologic units (such as claystone or siltstone) to ensure a solid anchor for blowout prevention equipment and to protect usable groundwater and surface water from contamination. A second string of surface casing may be required if the first string has not been cemented through a sufficient series of low permeability, competent lithologic units, and either a rapidly increasing thermal gradient or rapidly increasing formation pressures are encountered.</p> <p>(c) Drilling Fluid Return Temperatures. The temperature of the return drilling fluid shall be monitored continuously during the drilling of the surface casing hole. Either a continuous temperature monitoring device shall be installed and maintained in working condition, or the temperature shall be read manually. In either 64 DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES case, return drilling fluid temperatures shall be entered into the log book after each joint of pipe has been drilled down (every 10 meters, about 30 feet).</p> <p>1935.3. Intermediate Casing.</p> <p>Intermediate casing shall be required for protection against anomalous pressure zones, cave-ins, washouts, abnormal temperature zones, uncontrollable lost circulation zones or other drilling hazards. Intermediate casing strings shall be, if possible, cemented solid to the surface.</p> <p>1935.4. Production Casing.</p> <p>Production casing may be set above or through the producing or injection zone and cemented above the objective zones. Sufficient cement shall be used to exclude overlying formation fluids from the zone, to segregate zones, and to prevent movement of fluids behind the casing into zones that contain usable groundwater. Production casing shall either be cemented with sufficient cement to fill the annular space from the shoe to the surface or lapped into intermediate casing, if run. Production casing lapped into an intermediate string shall overlap at least 15 meters (about 50 feet); the lap shall be cemented solidly; and shall be pressure tested to ensure its integrity</p>
<p>Temporary Abandonment/ Shut- in Status</p>		<p>California Laws for Conservation of Petroleum and Gas 3237 Deserted Wells Abandonment Ordered</p> <p>a) (1) The supervisor or district deputy may order the plugging and abandonment of a well that has been deserted whether or not any damage is occurring or threatened by reason of that deserted well. The supervisor or district deputy shall determine from credible evidence whether a well is deserted.</p> <p>(2) For purposes of paragraph (1), "credible evidence" includes, but is not limited to, the operational history of the well, the response or lack of response of the operator to inquiries and requests from the supervisor or district deputy, the extent of compliance by the operator with the requirements of this chapter, and other actions of the operator with regard to the well.</p> <p>(3) A rebuttable presumption of desertion arises in any of the following situations:</p> <p>(A) If a well has not been completed to production or injection and drilling machinery have been removed from the well site for at least six months.</p> <p>(B) If a well's production or injection equipment has been removed from the well site for at least two years.</p> <p>(C) If an operator has failed to comply with an order of the supervisor within the time provided by the order or has failed to challenge the order on a timely basis.</p> <p>(D) If an operator fails to designate an agent as required by Section 3200.</p> <p>(E) If a person who is to acquire a well that is subject to a purchase, transfer, assignment, conveyance, exchange, or other disposition fails to comply with Section 3202.</p> <p>(F) If an operator has failed to maintain the access road to a well site passable to oilfield and emergency vehicles.</p> <p>(4) The operator may rebut the presumptions of desertion set forth in paragraph (3) by demonstrating with credible evidence compliance with this division and that the well has the potential for commercial production, including specific and detailed plans for future operations, and by providing a reasonable timetable for putting those plans into effect. The operator may rebut the presumption set forth in subparagraph (F) of paragraph (3) by repairing the access road.</p> <p>(b) An order to plug and abandon a deserted well may be appealed to the director pursuant to the procedures specified in Article 6 (commencing with Section 3350).</p>
<p>Well Plugging</p>	<p>Notice of Intention to Abandon Well- Oil and Gas, Form OG108</p>	<p>California Code of Regulations 1981. General Requirements.</p> <p>The following are general requirements which are subject to review and modification for individual wells or field conditions. The Division may require the witnessing of any or all of the field operations listed below.</p> <p>(a) Notice of Intention to plug and abandon Geothermal Resources Well, is required for all wells.</p> <p>(b) History of Geothermal Resources Well shall be filed within 60 days after completion of the plugging and abandonment.</p> <p>(c) The Division's Report of Well plugging and abandonment will not be issued until all records have been filed and the site inspected for final cleanup by a Division engineer.</p>

	<p>(d) Subsequent to the plugging and abandonment of the hole, all casings shall be cut off at least 2 meters (6 feet) below the surface of the ground, all concrete cellars and other structures shall be removed, and the surface location restored, as near as practicable, to original conditions. The landowner has the option to assume legal responsibility for a well; however, to do so he or she must have legal clearance from the Division.</p> <p>(e) Good quality, heavy drilling fluid approved by the Supervisor shall be used to replace any water in the hole and to fill all portions of the hole not plugged with cement.</p> <p>(f) All cement plugs, with the possible exception of the surface plug, shall be pumped into the hole through drill pipe or tubing.</p> <p>(g) All open annuli shall be filled solid with cement to the surface.</p> <p>1981.1. Exploratory Well Requirements (No Production Casing).</p> <p>(a) Base of fresh waters—a minimum of 30 meters (about 100 feet) of cement straddling the interface or transition zone whether behind casing or uncased.</p> <p>(b) Shoe plug (all casing, including conductor pipe)-straddle with 30 meters (about 100 feet) of cement.</p> <p>(c) Where the well has been drilled with air, a bridge plug shall be placed at the shoe of the surface casing and the bridge plug shall be capped with at least 60 meters (about 200 feet) of cement.</p> <p>(d) Surface plug-15 meters (about 50 feet) minimum. May be either neat cement or concrete mix.</p> <p>1981.2. Cased Wells.</p> <p>Cased exploratory, uncompleted development, former producing and injection wells.</p> <p>(a) Geothermal zones—uncased or perforated. Cement plugs shall extend from the bottom of the zone or perforations to 30 meters (about 100 feet) over the top of the zone or perforations.</p> <p>(b) Liners. Cement plugs shall be placed from 15 meters (about 50 feet) below to 15 meters (about 50 feet) above liner tops.</p> <p>(c) Casing may be salvaged within protection, if first approved by the Division. A minimum overlap of 15 meters (about 50 feet) is required.</p> <p>(d) Casing stubs and laps. Cement plugs shall be placed, if possible, from 15 meters (about 50 feet) below to 15 meters (about 50 feet) above top of casing. If unable to enter stub or lap, 30 meters (about 100 feet) of cement shall be placed on the top of the stub or lap.</p> <p>(e) Fish, collapsed pipe, etc. Cement plugs shall be squeezed, with the use of a retainer or bradenhead, with sufficient cement to fill across the production zone or perforations and to 30 meters (about 100 feet) above the zone or perforations.</p> <p>(f) Base of fresh waters—a minimum of 30 meters (about 100 feet) of cement straddling the interface or transition zone, whether behind casing or uncased.</p> <p>(g) Shoe plug (all casing, including conductor pipe)-straddle with 30 meters (about 100 feet) of cement.</p> <p>(h) Where the well has been drilled with air, a bridge plug shall be placed at the shoe of the surface casing and the bridge plug shall be capped with at least 60 meters (about 200 feet) of cement.</p> <p>(i) Surface plug-15 meters (about 50 feet) minimum. May be either neat cement or concrete mix.</p> <p>California Laws for Conservation of Petroleum and Gas 3201 Supervisors Duties</p> <p>(a) The supervisor shall so supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines not subject to regulation pursuant to Chapter 5.5 (commencing with Section 51010) of Part 1 of Division 1 of Title 5 of the Government Code that are within an oil and gas field, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.</p>
<p>Tanks</p>	<p>California Code of Regulations 1773. Tank Settings.</p> <p>Tank settings in areas where damage to life, health, property, or natural resources might occur as a result of leakage, shall have a method for control of the spilled fluid and detection of tank-bottom leaks. This may be accomplished by employing a combination of the following containment and detection methods:</p> <p>(a) For containment:</p> <ol style="list-style-type: none"> (1) A drainage system for safe fluid containment. (2) Diversion walls to direct fluids to a preferred collection point. (3) Dikes or fire walls capable of containing the volume of the largest tank. Tank settings in urban areas shall have dikes. <p>(b) For leak detection:</p> <ol style="list-style-type: none"> (1) A tank installation that allows the exterior surface, including the bottom of the tank and connection piping, to be monitored by direct viewing. (2) A tank foundation of concrete or gravel. (3) A tank bottom leak detection system. <p>1774. Oilfield Facilities and Equipment Maintenance.</p> <p>(b) Production facilities, including but not limited to, tanks, pipelines, flowlines, wellheads, and separators shall be maintained in a manner to prevent leakage.</p> <p>California Laws for Conservation of Petroleum and Gas 3201 Supervisors Duties</p>

		<p>(a) The supervisor shall so supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines not subject to regulation pursuant to Chapter 5.5 (commencing with Section 51010) of Part 1 of Division 1 of Title 5 of the Government Code that are within an oil and gas field, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.</p>
Pits		<p>California Code of Regulations 1770. Oilfield Sumps.</p> <p>(a) Location. Sumps for the collection of waste water or oil shall not be permitted in natural drainage channels. Contingency catch basins may be permitted, but they shall be evacuated and cleaned after any spill. Unlined evaporation sumps, if they contain harmful waters, shall not be located where they may be in communication with freshwater-bearing aquifers.</p> <p>(b) Construction. Sumps shall be designed, constructed, and maintained so as to not be a hazard to people, livestock, or wildlife including birdlife.</p> <p>(1) To protect people, sumps in urban areas shall be enclosed in accordance with Section 1778 (a) or (e) and (c).</p> <p>(2) In non-urban areas, to protect people and livestock and to deter wildlife, an enclosure shall be constructed around sumps in accordance with Section 1778 (b) or (e).</p> <p>(3) Any sump, except an operations sump, which contains oil or a mixture of oil and water shall be covered with screening to restrain entry of wildlife in accordance with Section 1778(d).</p> <p>(4) A sump need not be individually fenced if the property or the production facilities of which the sump is a part is enclosed by proper perimeter fencing.</p>
Exempt Waste Handling		<p>California Code of Regulations 1775. Oilfield Wastes and Refuse.</p> <p>(a) Oilfield wastes, including but not limited to oil, water, chemicals, mud, and cement, shall be disposed of in such a manner as not to cause damage to life, health, property, freshwater aquifers or surface waters, or natural resources, or be a menace to public safety. Disposal sites for oilfield wastes shall also conform to State Water Resources Control Board and appropriate California Regional Water Quality Control Board regulations.</p> <p>(b) Dumping harmful chemicals where subsequent meteoric waters might wash significant quantities into freshwaters shall be prohibited. Drilling mud shall not be permanently disposed of into open pits. Cement slurry or dry cement shall not be disposed of on the surface.</p> <p>1771. Channels.</p> <p>Open unlined channels and ditches shall not be used to transport waste water which is harmful to underlying freshwater deposits. Oil or water containing oil shall not be transported in open unlined channels or ditches unless provisions are made so that they are not a hazard as determined by the Supervisor.</p> <p>1748.1. Waste Disposal.</p> <p>All discharges into the ocean shall conform to the requirements of the appropriate Regional Water Quality Control Board. containing oil shall not be transported in open unlined channels or ditches unless provisions are made so that they are not a hazard as determined by the Supervisor.</p>
Spills		<p>California Code of Regulations 1722. General.</p> <p>(a) All operations shall be conducted in accordance with good oilfield practice.</p> <p>(b) The operator for a facility or group of related facilities shall develop an oil spill contingency plan. Condensate spill plans shall also be developed by the operator for those facilities within gas fields that produce condensate at an average rate of at least one barrel per day or where condensate storage volume exceeds 50 barrels. The plan(s) shall be filed within six months after initial production or acquisition of a facility. A copy of the plan shall be on file in the local office of the operator and subject to the inspection of the Supervisor or a representative of the Supervisor during regular business hours. If the operator does not have an office in the district, a copy of the plan shall be filed with the Division district office. Plans prepared pursuant to Federal Environmental Protection Agency regulations (SPCC Plans) may fulfill the provisions of this subsection if such plans are determined to be adequate by the appropriate Division district deputy. If, in the judgment of the Supervisor, a plan becomes outdated, the Supervisor may require that the plan be updated to ensure that it addresses and applies to current conditions and technology</p> <p>(h) Oil spills shall be promptly reported to the Office of Emergency Services (OES) by calling the toll-free telephone number (800) 852-7550 and by contacting the agencies specified in the operator's oil spill contingency plan.</p>

Colorado		
Topic	Associated Forms	Regulations: http://oil-gas.state.co.us/ (This includes links to the current and the proposed rules) Excerpted Text by Topic (Special Note: The language shown below is based on the rules as they existed in May, 2008. Colorado is currently revising their rules)
Permitting	<p>Application for Permit-To-Drill, Deepen, Re-Enter, or Recomplete, and Operate, Form 2</p> <p>Sundry Notice, Form 4</p> <p>Drill Site/ Access Road Reclamation, Form 2A</p>	<p>Colorado Oil and Gas Conservation Commission Rules and Regulations</p> <p>303. REQUIREMENTS FOR APPLICATION FOR PERMIT-TO-DRILL, DEEPEN, RE-ENTER, OR RECOMPLETE, AND OPERATE.</p> <p>(1) Approval by Director. Before any person shall commence operations for the drilling or re-entry of any well, such person shall file with the Director an application on Form 2 for a Permit-to-Drill, pay a filing and service fee established by the Commission (see Appendix III), and obtain the Director's approval before commencement of operations with heavy equipment.</p> <p>(2) Final agency action. The Director's approval of a Permit-to-Drill shall be considered final agency action for purpose of judicial review.</p> <p>(3) Operational conflicts. The Permit-to-Drill shall be binding with respect to any operationally conflicting local governmental permit or land use approval process.</p> <p>(4) Exemptions. Wells drilled for stratigraphic information only shall be exempt from paying the filing and service fee. The re-entry of a well in a unitized, storage, or secondary recovery operation shall be exempt from the filing of Form 2 and from paying the filing and service fee. The notice of such intent to re-enter a well shall be filed on a Sundry Notice, Form 4. 300-2 as of October 1, 2007</p>
Well Treatment, Stimulation and Fracturing	Completed Interval Report, Form 5A	<p>305. NOTICES OF OIL AND GAS OPERATIONS</p> <p>b. Notices. (2) Notice of subsequent well operations. Before an operator shall commence subsequent well operations, such operator shall evidence its intention to conduct such operations by giving the surface owner written notice thereof in accordance with paragraph c. below. Subsequent well operations shall mean those operations that will materially impact surface areas beyond the existing access road or well site for any well, including operations such as fracturing or recompletion of the well but shall not include routine service and maintenance operations including but not limited to the changing of pumps. The notice of subsequent operations shall be mailed or hand delivered not less than seven (7) days prior to the date of estimated commencement of operations with heavy equipment as set forth in the notice.</p> <p>308B. COGCC Form 5A. COMPLETED INTERVAL REPORT</p> <p>The Completed Interval Report, Form 5A, shall be submitted within thirty (30) days of completing a formation (successful or not), when a formation is temporarily abandoned or permanently abandoned, for a recompletion, reperforation or restimulation, or when a formation is commingled.</p>
Well Construction	<p>Drilling Completion Report, Form 5</p> <p>Sundry Notice, Form 4</p>	<p>308A. COGCC Form 5. DRILLING COMPLETION REPORT</p> <p>Within thirty (30) days of the setting of production casing, the plugging of a dry hole, the deepening or sidetracking of a well, or any time the wellbore configuration is changed, the operator shall transmit to the Director the Drilling Completion Report, Form 5, and two (2) copies of all logs run, be they mechanical, mud, or other, submitted as one (1) paper copy and, as available, one (1) digital LAS (log ASCII) formatted copy, or a format approved by the Director.</p> <p>317. GENERAL DRILLING RULES</p> <p>d. Casing program to protect hydrocarbon horizons and ground water. The casing program adopted for each well must be so planned and maintained as to protect any potential oil or gas bearing horizons penetrated during drilling from infiltration of injurious waters from other sources, and to prevent the migration of oil, gas or water from one (1) horizon to another, that may result in the degradation of ground water. A Sundry Notice, Form 4, including a detailed work plan and a wellbore diagram, shall be submitted and approved by the Director prior to any routine or planned casing repair operations. During well operations, prior verbal approval for unforeseen casing repairs followed by the filing of a Sundry Notice, Form 4, after completion of operations shall be acceptable.</p> <p>e. Surface casing where subsurface conditions are unknown. In areas where pressure and formations are unknown, sufficient surface casing shall be run to reach a depth below all known or reasonably estimated utilizable domestic fresh water levels and to prevent blowouts or uncontrolled flows and shall be of sufficient size to permit the use of an intermediate string or strings of casings. Surface casing shall be set in or through an impervious formation and shall be cemented by pump and plug or displacement or other approved method with sufficient cement to fill the annulus to the top of the hole, all in accordance with reasonable requirements of the Director. In the D-J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also subparagraph g.).</p> <p>f. Surface casing where subsurface conditions are known. In wells drilled in areas where subsurface conditions have been established by drilling experience, surface casing size, at the owner's option, shall be set and cemented to the surface by the pump and plug or displacement or other approved method at a depth and in a manner sufficient to protect all fresh water and to ensure against blowouts or uncontrolled flows. In the D-J Basin Fox Hills Protection Area surface casing will be set in accordance with Rule 317A. (See also</p>

	<p>subparagraph g.). g. Alternate aquifer protection by stage cementing. In areas where fresh water aquifers are of such depth as to make it impractical or uneconomical to set the full amount of surface casing necessary to comply fully with the requirement to cover or isolate all fresh water aquifers as required in subparagraph e. and f., the owner may, at its option, comply with this requirement by stage cementing the intermediate and/or production string so as to accomplish the required result. If unanticipated fresh water aquifers are encountered after setting the surface pipe they shall be protected or isolated by stage cementing the intermediate and/or production string with a solid cement plug extending from fifty (50) feet below each fresh water aquifer to fifty (50) feet above said fresh water aquifer or by other methods approved by the Director in each case. In the D-J Basin Fox Hills Protection Area any stage cementing shall occur only in accordance with Rule 317A. If the stage cement is not circulated to surface, a temperature log or cement bond log shall be run to determine the top of the stage cement to ensure aquifers are protected.</p> <p>h. Surface and intermediate casing cementing. The operator shall ensure that all surface and intermediate casing cement required under this rule shall be of adequate quality to achieve a minimum compressive strength of three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five degrees fahrenheit (95°F) and at eight hundred (800) psi. All surface casing shall be cemented with a continuous column from the bottom of the casing to the surface. After thorough circulation of the wellbore, cement shall be pumped behind the intermediate casing to at least two hundred (200) feet above the top of the shallowest known production horizon and as required in 317.g. Cement placed behind the surface and intermediate casing shall be allowed to set a minimum of eight (8) hours, or until three hundred (300) psi calculated compressive strength is developed, whichever occurs first, prior to commencing drilling operations. If the surface casing cement level falls below the surface, to the extent safety or aquifer protection is compromised, remedial cementing operations shall be performed.</p> <p>i. Production casing cementing. The operator shall ensure that all cement required under this rule placed behind production casing shall be of adequate quality to achieve a minimum compressive strength of at least three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five degrees fahrenheit (95°F) and at eight hundred (800) psi. After thorough circulation of a wellbore, cement shall be pumped behind the production casing two hundred (200) feet above the top of the shallowest known producing horizon. All fresh water aquifers which are exposed below the surface casing shall be cemented behind the production casing. All such cementing around an aquifer shall consist of a continuous cement column extending from at least fifty (50) feet below the bottom of the fresh water aquifer which is being protected to at least fifty (50) feet above the top of said fresh water aquifer. Cement placed behind the production casing shall be allowed to set seventy-two (72) hours, or until eight hundred (800) psi calculated compressive strength is developed, whichever occurs first, prior to the undertaking of any completion operation. 300-11 as of October 1, 2007</p> <p>j. Production casing pressure testing. The installed production casing shall be adequately pressure tested for the conditions anticipated to be encountered during completion and production operations.</p> <p>317A. SPECIAL DRILLING RULES - D-J BASIN FOX HILLS PROTECTION AREA</p> <p>a. Surface Casing - Minimum Requirements for Well Control. In all wells drilled within the D-J Basin Fox Hills Protection Area, surface casing shall be run to a minimum depth of five percent (5%) of the projected total depth to which the well is to be drilled, provided that in no event shall the surface casing be run to a depth less than two hundred (200) feet. The Director may, on a case-by-case basis, grant variances in this five percent (5%) requirement where the Director finds that the well is a development well in which pressures can be accurately predicted and finds that, based upon those predictions, the five percent (5%) requirement should be varied to achieve effective well control. In all cases, however, the actual depth at which the surface casing is set shall be calculated to position the casing seat to a depth within a competent formation (preferably shale) which will contain the maximum pressure to which the casing will be exposed during normal drilling operations.</p> <p>b. Surface Casing - Aquifer Protection. For purposes of aquifer protection, surface casing must be set as follows in wells which are not exploratory wells: (1) Surface casing shall be run to a depth at least fifty (50) feet below the Fox Hills transition zone in wells drilled within Townships 5 South through 5 North, Ranges 65 West through 70 West or within Townships 3 North through 5 North, Range 64 West. (2) With respect to Townships 5 South through 5 North, Ranges 58 West through 63 West, Townships 5 South through 2 North, Range 64 West; and Township 6 South, Ranges 65 West through 70 West, in all wells located within one (1) mile of a permitted producing water well, surface casing shall be set to a depth sufficient to protect the deepest permitted producing water well within such one (1) mile area. Said depth shall be at least fifty (50) feet below the depth of the base of the aquifer from which said deepest water well is 300-12 as of October 1, 2007 producing, or fifty (50) feet below the base of the Fox Hills Transition Zone if such deepest water well produces from the Fox Hills Aquifer. Upon the request of the operator, the Director (or the Commission upon appeal) may grant a variance to the requirements of this subparagraph b. upon a showing to the Director, or the Commission upon appeal, that the variance does not violate the basic intent of said requirements. For such variance purpose, the basic intent of said requirements is stated to be to provide reasonable aquifer protection for the water well(s) which are permitted by the State of Colorado Division of Water Resources and are currently producing in the area potentially affected by the oil or gas well to be drilled.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>319. ABANDONMENT</p> <p>b. Shut-in and Temporary Abandonment. (1) A well may be shut-in or temporarily abandoned when completed, upon approval of the Director, for a period not to exceed six (6) months provided the hole is cased or left in such a manner as to prevent migration of oil, gas, water or other substance from the formation or horizon in which it originally occurred. All shut-in or temporarily abandoned wells shall be closed to the atmosphere with a swedge and valve or packer, or other approved method. The well sign shall remain in place. If an operator requests shut-in or temporary abandonment status in excess of six (6) months the operator shall state the reason for requesting such extension and state plans for future operation. A Sundry Notice, Form 4, or other form approved by the Director, shall be submitted annually stating the status of the well and plans for future operation. (2) The manner in which the well is to be maintained should be reported to the Commission, and bonding requirements, as provided for in Rule 304., kept in force until such time as the well is permanently abandoned.</p>

		<p>(3) A well which has ceased production or injection or is incapable of production or injection shall be abandoned within six (6) months thereafter unless the time is extended by the Director upon application by the owner. The application shall indicate why the well is shut-in and future plans for utilization. In the event the well is covered by a blanket bond, the Director may require an individual plugging bond on the shut-in or temporarily abandoned well. Gas storage wells are to be considered active at all times unless physically plugged.</p> <p>(4) In addition to the requirements of Rule 325., an injection well that is shut-in or temporarily abandoned shall have a mechanical integrity test performed within two (2) years after the shut-in date in order to be retained in shut-in or temporarily abandoned status. (5) If an injection well which has been shut-in or temporarily abandoned is determined not to have mechanical integrity as a result of any test required by the Commission rules and regulations, it must, within 300-19 as of October 1, 2007 six (6) months following such a test, be either repaired and pass a mechanical integrity test or be plugged and abandoned.</p>
<p>Well Plugging</p>	<p>Well Abandonment Report, Form 6</p> <p>Drilling Completion Report, Form 5</p>	<p>308A. COGCC Form 5. DRILLING COMPLETION REPORT</p> <p>Within thirty (30) days of the setting of production casing, the plugging of a dry hole, the deepening or sidetracking of a well, or any time the wellbore configuration is changed, the operator shall transmit to the Director the Drilling Completion Report, Form 5, and two (2) copies of all logs run, be they mechanical, mud, or other, submitted as one (1) paper copy and, as available, one (1) digital LAS (log ASCII) formatted copy, or a format approved by the Director.</p> <p>311. COGCC Form 6. WELL ABANDONMENT REPORT</p> <p>Notice shall be given to the Director, and approval obtained in advance of the time the operator expects to abandon a well on Form 6. When filing an intent to abandon, the form shall be completed and attachments included to fully describe the proposed operations. This includes the proposed depths of mechanical plugs and casing cuts, the proposed depths and volumes of all cement plugs, the amount, size and depth of casing and junk to be left in the well, the volume and weight of fluid to be left in the wellbore and the nature and quantities of any other materials to be used in the plugging. If the well is not plugged within six (6) months of intent approval a new intent shall be filed. Within thirty (30) days after abandonment, the Well Abandonment Report, Form 6, shall be filed with the Director. The abandonment details shall include an account of the manner in which the abandonment or plugging work was performed. Additionally, plugging verification reports detailing all procedures are required. A Plugging Verification Report shall be submitted for each person or contractor actually setting the plugs. The Well Abandonment Report, Form 6, and the Plugging Verification Reports shall detail the depths of mechanical plugs and casing cuts, the depths and volumes of all cement plugs, the amount, size and depth of casing and junk left in the well, the volume and weight of fluid left in the wellbore and the nature and quantities of any other materials used in the plugging. Plugging Verification Reports shall conform with the operator's report and both shall show that plugging procedures are at least as extensive as those approved by the Director. When filing a subsequent report of abandonment, the entire form shall be completed except for the second block, background information. (See Rule 319 for well abandonment requirements and procedures.)</p> <p>319. ABANDONMENT</p> <p>The requirements for abandoning a well shall be as follows:</p> <p>a. Plugging</p> <p>(1) A dry or abandoned well, seismic, core, or other exploratory hole, must be plugged in such a manner that oil, gas, water, or other substance shall be confined to the reservoir in which it originally occurred. Any cement plug shall be a minimum of fifty (50) feet in length and shall extend a minimum of fifty (50) feet above each zone to be protected. The material used in plugging, whether cement, mechanical plug, or some other equivalent method approved in writing by the Director, must be placed in the well in a manner to permanently prevent migration of oil, gas, water, or other substance from the formation or horizon in which it originally occurred. The preferred plugging cement slurry is that recommended by the American Petroleum Institute (API) Environmental Guidance Document: Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations, i.e., a neat cement slurry mixed to API standards. However, pozzolan, gel and other approved extenders may be used if the operator can document, to the Director's satisfaction, that the slurry design will achieve a minimum compressive strength of three hundred (300) psi after twenty-four (24) hours and eight hundred (800) psi after seventy-two (72) hours measured at ninety-five (95) degrees fahrenheit and at eight hundred (800) psi. 300-18 as of October 1, 2007</p> <p>(2) The operator shall have the option as to the method of placing cement in the hole by (a) dump bailer, (b) pumping a balanced cement plug through tubing or drill pipe, (c) pump and plug, or (d) equivalent method approved by the Director prior to plugging. Unless prior approval is given, all wellbores will have water, mud or other approved fluid between all plugs.</p> <p>(3) No substance of any nature or description other than normally used in plugging operations shall be placed in any well at any time during plugging operations. All final reports of plugging and abandonment shall be submitted on a Well Abandonment Report, Form 6, and accompanied by a job log or cement verification report from the plugging contractor specifying the type of fluid used to fill the wellbore, type and slurry volume of API Class cement used, date of work, and depth the plugs were placed.</p> <p>(4) In order to protect the fresh water strata, no surface casing shall be pulled from any well unless authorized by the Director.</p> <p>(5) All abandoned wells shall have a plug or seal placed at the surface of the ground or the bottom of the cellar in such manner as not to interfere with soil cultivation or other surface use. The top of the pipe must be sealed with either a cement plug and a screw cap, or cement plug and a steel plate welded in place or by other approved method, or in the alternative be marked with a permanent monument which shall consist of a piece of pipe not less than four (4) inches in diameter and not less than ten (10) feet in length, of which four (4) feet shall be above the general ground level, the remainder to be embedded in cement or to be welded to the surface casing.</p> <p>(6) The operator must obtain approval from the Director of the plugging method prior to plugging, and shall notify the Director of the estimated time and date the plugging operation of any well is to commence, and identify the depth and thickness of all known sources of ground water. For good cause shown, the Director may require that a cement plug be tagged if a cement retainer or bridge plug is not used. If requested by the operator, the Director shall furnish written follow-up documentation for a requirement to tag cement plugs.</p> <p>(7) Wells Used for Fresh Water. When the well, seismic, core, or other exploratory hole to be plugged may safely be used as a fresh water well, and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water; provided that written authority for such use is secured from the landowner and, in such written authority, the landowner assumes the responsibility to plug the well upon its abandonment as a</p>

		water well in accordance with these rules. Such written authority and assumption of responsibility shall be filed with the Commission, provided further that the landowner furnish a copy of the permit for a water well approved by the Division of Water Resources.
Tanks		<p>604. PRODUCTION FACILITIES</p> <p>a. Crude Oil Tanks.</p> <p>(1) Atmospheric tanks used for crude oil storage shall be built in accordance with the following standards as applicable:</p> <p>A. Underwriters Laboratories, Inc., No. UL-142, "Standard for Steel Above Ground Tanks for Flammable and Combustible Liquids"</p> <p>B. American Petroleum Institute Standard No. 650, "Welded Steel Tanks for Oil Storage"</p> <p>C. American Petroleum Institute Standard No. 12B, "Bolted Tanks for Storage of Production Liquids"</p> <p>D. American Petroleum Institute Standard No. 12D, "Field Welded Tanks for Storage of Production Liquids" or 600-5 as of January 30, 2003</p> <p>E. American Petroleum Institute Standard No. 12F, "Shop Welded Tanks for Storage of Production Liquids".</p> <p>(2) Tanks shall be located at least two (2) diameters or three hundred fifty (350) feet, whichever is smaller, from the boundary of the property on which it is built. Where the property line is a public way the tanks shall be two thirds (2/3) of the diameter from the nearest side of the public way or easement.</p> <p>A. Tanks less than three thousand (3,000) barrels capacity shall be located at least three (3) feet apart.</p> <p>B. Tanks three thousand (3,000) or more barrels capacity shall be located at least one-sixth (1/6) the sum of the diameters apart. When the diameter of one (1) tank is less than one-half (1/2) the diameter of the adjacent tank, the tanks shall be located at least one-half (1/2) the diameter of the smaller tank apart.</p> <p>(3) At the time of installation, tanks shall be a minimum of two hundred (200) feet from residences, normally occupied buildings, or well defined normally occupied outside areas.</p> <p>(4) Berms shall be constructed around tanks in the absence of remote impounding. Both methods shall enclose an area with sufficient volume to contain the entire contents of the largest tank in the enclosure. Berms shall be inspected at regular intervals and maintained in good condition. When a berm is provided around tanks no potential ignition sources shall be installed inside that area.</p> <p>(5) Tanks shall be a minimum of seventy-five (75) feet from a fired vessel or heater-treater.</p> <p>(6) Tanks shall be a minimum of fifty (50) feet from a separator, well test unit or other non-fired equipment.</p> <p>(7) Tanks shall be a minimum of seventy-five (75) feet from a compressor with a rating of two hundred (200) horsepower, or more.</p> <p>(8) Tanks shall be a minimum of seventy-five (75) feet from a wellhead.</p> <p>(9) Gauge hatches on atmospheric tanks used for crude oil storage shall be closed at all times when not in use.</p> <p>(10) Vent lines from individual tanks shall be joined and ultimate discharge shall be directed away from the loading racks and fired vessels in accord with API RP 12R-1.</p> <p>(11) During hot oil treatments on tanks containing thirty-five (35) degree or higher API gravity oil, hot oil units shall be located a minimum of one hundred (100) feet from any tank being serviced.</p> <p>b. Fired Vessel, Heater-Treater.</p> <p>(1) Fired vessels (FV) including heater-treaters (HT) shall be minimum of fifty (50) feet from separators or well test units.</p> <p>(2) FV-HT shall be a minimum of fifty (50) feet from a lease automatic custody transfer unit (LACT).</p> <p>(3) FV-HT shall be a minimum of forty (40) feet from a pump.</p> <p>(4) FV-HT shall be a minimum of seventy-five (75) feet from a well.</p> <p>(5) At the time of installation, FV-HT shall be a minimum of two hundred (200) feet from residences occupied buildings, or well defined normally occupied outside areas.</p> <p>(6) Vents on pressure safety devices shall terminate in a manner so as not to endanger the public or adjoining facilities. They shall be designed so as to be clear and free of debris and water at all times.</p> <p>e. Buried or partially buried tanks, vessels or structures.</p> <p>Buried or partially buried tanks, vessels, or structures used for storage of E&P waste shall be properly designed, constructed and installed in a manner to contain materials safely. Such vessels shall be tested for leaks after installation and maintained, repaired or replaced to prevent spills or releases of E&P waste.</p> <p>603. DRILLING AND WELL SERVICING OPERATIONS AND HIGH DENSITY AREA RULES</p> <p>e. The following rules shall apply in high density and designated outside activity areas:</p> <p>(3) Setbacks for production equipment. At the time of initial installation, production tanks and/or associated on-site production equipment shall be located not less than three hundred fifty (350) feet from any building unit, and, if requested by the local governmental designee, production tanks shall be located five hundred (500) feet from an educational facility, assembly building, hospital, nursing home, board and care facility, jail or designated outside activity area. However, such five hundred (500) foot setback shall be decreased to the maximum achievable setback if five hundred (500) feet would extend beyond the area on which the operator has a legal right to place or construct such facilities. Should the operator object to such five hundred (500) foot setback for any reason, a variance hearing shall be conducted at the next regularly scheduled meeting of the Commission, subject to the notice requirements of Rule 507.</p> <p>(12) Berm construction. All newly installed or replaced berms in high density areas, in the absence of remote impounding, shall be constructed around crude oil and condensate storage tanks and shall enclose an area sufficient to contain one hundred fifty percent (150%) of the largest single tank. No more than two (2) crude oil and condensate storage tanks shall be located within a single berm. Berms shall be inspected at regular intervals and containment integrity maintained. Refer to American Petroleum Institute Recommended Practices - D16.</p> <p>(13) Tank specifications. All newly installed or replaced crude oil and condensate storage tanks in high density areas shall be designed, constructed, and maintained in accordance with National Fire Protection Association's latest edition (NFPA 30). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director.</p>
Pits	Pit Construction/ Report Permit,	<p>233. OPEN PIT STORAGE OF OIL OR HYDROCARBON SUBSTANCES</p> <p>Storage of oil or any other produced liquid hydrocarbon substance in earthen pits or reservoirs is considered to constitute waste, except in emergencies where</p>

	<p>Form 15</p> <p>Site Investigation and Remediation Workplan, Form 27</p>	<p>such substances cannot be otherwise contained. In such cases, these substances must be reclaimed and such storage eliminated as soon as practicable after the emergency is controlled, unless special permission to delay or continue is obtained from the Director.</p> <p>902. PITS - GENERAL AND SPECIAL RULES</p> <p>a. Pits used for exploration and production of oil and gas shall be constructed and operated to protect the waters of the state from significant adverse environmental impacts from E&P waste, except as permitted by applicable laws and regulations.</p> <p>b. Topsoil and subsoil removed in the construction of the pit shall be segregated and stockpiled in a manner described in Rule 1002. and used for reclamation of the site.</p> <p>c. Pits shall be constructed and operated to provide for a minimum of two (2) feet of freeboard between the top of the pit wall and the fluid level of the pit.</p> <p>d. Any accumulation of oil in a pit shall be removed within twenty-four (24) hours of discovery. This requirement is not applicable to properly permitted and properly fenced or netted skim pits.</p> <p>e. Where necessary to protect public health, safety and welfare or to prevent significant adverse environmental impacts resulting from access to a pit by wildlife, migratory birds, domestic animals, or members of the general public, operators shall install appropriate netting or fencing. 900-2 as of November 30, 2006</p> <p>f. Multi-well pits. Production and special purpose pits used for treatment or disposal of E&P waste generated from more than one well may be permitted in accordance with Rule 903. as a multi-well pit, subject to Director approval.</p> <p>g. Unlined drilling pits shall not be constructed on fill material.</p> <p>h. Produced water shall be treated in accordance with Rule 907. before being placed in a production pit.</p> <p>903. PIT PERMITTING/REPORTING REQUIREMENTS</p> <p>a. Drilling pits, production pits, and special purpose pits shall be permitted or reported as follows:</p> <p>(1) Pit Construction Report/Permit, Form 15, shall be submitted for prior Director approval for the following:</p> <p>A. Drilling pits designed for use with fluids containing hydrocarbon concentrations exceeding 20,000 ppm TPH or chloride concentrations at total well depth exceeding 15,000 ppm in sensitive areas or 50,000 ppm outside sensitive areas.</p> <p>B. Production pits and unlined special purpose pits in sensitive areas.</p> <p>C. Unlined production pits and special purpose pits outside sensitive areas, excluding those pits permitted in accordance with Rule 903.a.(2).B.</p> <p>(2) Pit Construction Report/Permit, Form 15, shall be submitted within thirty (30) days after construction for the following:</p> <p>A. Lined production pits outside sensitive areas.</p> <p>B. Unlined production pits outside sensitive areas receiving produced water at an average daily rate of five (5) or less barrels per day calculated on a monthly basis for each month of operation.</p> <p>C. Lined special purpose pits.</p> <p>D. Flare pits where there is no risk of condensate accumulation.</p> <p>(3) Pit Construction Report/Permit, Form 15, shall not be required for drilling pits using water-based bentonitic drilling fluids with concentrations of TPH and chloride below those referenced in Rule 903.a.(1).A.</p> <p>b. The Pit Construction Report/Permit, Form 15, shall be completed in accordance with the instructions in Appendix I. Failure to complete the form in full may result in delay of approval or return of form.</p> <p>c. The Director shall endeavor to review any properly completed Pit Construction Report/Permit, Form 15, within thirty (30) days after receipt. In order to allow adequate time for pit permit approval, operators should submit required Form 15 pit construction permit requests for approval with an Application for Permit to Drill, Form 2. The Director may condition permit approval upon compliance with additional terms, provisions or requirements necessary to protect the waters of the state, public health, or the environment.</p> <p>904. PIT LINING REQUIREMENTS AND SPECIFICATIONS</p> <p>a. Pit lining requirements.</p> <p>The following pits shall be lined:</p> <p>(1) Drilling pits designed for use with fluids containing hydrocarbon concentrations exceeding 20,000 ppm TPH or chloride concentrations at total well depth exceeding 15,000 ppm in sensitive areas or 50,000 ppm outside sensitive areas.</p> <p>(2) Production pits in sensitive areas.</p> <p>(3) Special purpose pits, except emergency pits constructed during initial response to spills/releases, or flare pits where there is no risk of condensate accumulation.</p> <p>(4) Skim pits.</p> <p>b. The following specifications shall apply to pits that are required to be lined:</p> <p>(1) Materials used in lining pits shall be impervious, weather resistant and resistant to deterioration when in contact with hydrocarbons, aqueous acids, alkali, fungi or other substances in the produced water. 900-3 as of November 30, 2006</p> <p>(2) Soil liners shall have a minimum thickness of six (6) inches after compaction, shall cover the entire bottom and interior sides of the pit, and shall be constructed so that the hydraulic conductivity of the liner shall not exceed 1.0×10^{-6} cm/sec. Bentonite liners shall be constructed to provide equivalent protection. Operators shall perform post-construction tests either in a laboratory or in the field. All test results shall be filed with the Director.</p> <p>(3) Synthetic or fabricated liners shall have a minimum thickness of twelve (12) mils and shall be resistant to deterioration by ultraviolet light, weathering, chemicals, punctures and tearing, and designed for the life of the well. The foundation for the liner shall be constructed to prevent punctures from soils or other materials beneath the liner. The synthetic or fabricated liner shall cover the bottom and interior sides of the pit with the edges secured with at least a twelve (12) inch deep anchor trench around the pit perimeter.</p> <p>(4) In Sensitive Areas, the Director may require a leak detection system for the pit or other equivalent protective measures, including but not limited</p>
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<p>Exempt Waste Handling</p>	<p>Site Investigation and Remediation Workplan, Form 27</p> <p>Sundry notice, Form 4</p>	<p>907. MANAGEMENT OF E&P WASTE</p> <p>a. General requirements.</p> <ol style="list-style-type: none"> (1) Operator obligations. Operators shall ensure that E&P waste is properly stored, handled, transported, treated, recycled or disposed to prevent threatened or actual significant adverse environmental impacts to air, water, soil or biological resources or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications. (2) E&P waste management activities shall be conducted, and facilities constructed and operated, to protect the waters of the state from significant adverse environmental impacts from E&P waste, except as permitted by applicable laws and regulations. (3) Reuse and recycling. To encourage and promote waste minimization, operators may propose plans for managing E&P waste through beneficial use, reuse and recycling by submitting a written management plan to the Director for approval. Such plans shall describe the proposed use of the waste, method of waste treatment, product quality assurance, and shall include a copy of any certification or authorization that may be required by other laws. 900-5 as of November 30, 2006 <p>b. Waste transportation.</p> <ol style="list-style-type: none"> (1) E&P waste, when transported off-site within Colorado for treatment or disposal, shall be transported to facilities authorized by the Director or waste disposal facilities approved to receive E&P waste by the CDPHE. (2) Waste generator requirements. Generators of E&P waste shall maintain, for not less than three (3) years, copies of each invoice, bill or ticket and such other records as necessary to document the following information from a transporter or disposal site, describing the disposal of E&P waste from each location: <ol style="list-style-type: none"> A. The date of the transport; B. The identity of the waste generator; C. The identity of the waste transporter; D. The location of the waste pickup site; E. The type and volume of waste; and F. The name and location of the treatment or disposal site. <p>Such records shall be made available for inspection by the Director during normal business hours and copies thereof shall be furnished to the Director upon request.</p> <p>c. Produced water.</p> <ol style="list-style-type: none"> (1) Treatment of produced water. Produced water shall be treated prior to placement in a production pit to prevent crude oil and condensate from entering the pit. (2) Produced water disposal. Produced water may be disposed as follows: <ol style="list-style-type: none"> A. Injection into a Class II well, permitted in accordance with Rule 325.; B. Evaporation/percolation in a properly permitted lined or unlined pit; C. Disposal at permitted commercial facilities; or D. Disposal by roadspreading on lease roads outside sensitive areas for produced waters with less than 5,000 mg/l TDS when authorized by the surface owner. Roadspreading shall not result in pooling or runoff of produced waters and the adjacent soils shall meet the allowable concentrations in Table 910-1. E. Discharging into state waters, in accordance with the Water Quality Control Act and the rules and regulations promulgated thereunder. <p>Produced water discharged pursuant to this subsection</p> <p>(2)E. may be put to beneficial use in accordance with applicable state statutes and regulations governing the use and administration of water.</p>

(3) Produced water reuse and recycling. Produced water may be reused for enhanced recovery, drilling, and other uses in a manner consistent with existing water rights and in consideration of water quality standards and classifications established by the WQCC for waters of the state, or any point of compliance established by the Director pursuant to Rule 324D.

(4) Mitigation. Water produced during operation of an oil or gas well may be used to provide an alternate domestic water supply to surface owners within the oil or gas field, in accordance with all applicable laws, including, but not limited to, obtaining the necessary approvals from the WQCD for constructing a new "waterworks," as defined by section 25-1-107(1)(X)(II)(A), C.R.S. Any produced water not so used shall be disposed of in accordance with subsection (2) or (3). Provision of produced water for domestic use within the meaning of this subsection (4) shall not constitute an admission by the operator that the well is dewatering or impacting any existing water well. The water produced shall be to the benefit of the surface owner within the oil and gas field and may not be sold for profit or traded. 900-6 as of November 30, 2006

d. Drilling fluids.

(1) Drilling pit fluid recycling. Drilling pit contents may be recycled to another drilling pit consistent with Rule 903.

(2) Drilling fluids treatment and disposal. Drilling fluids may be treated or disposed as follows:

A. Injection into a Class II well permitted in accordance with Rule 325.;

B. Disposal at a commercial solid waste disposal facility; or

C. Land treatment or land application at a centralized E&P waste management facility permitted in accordance with Rule 908.

(3) Additional authorized disposal of water-based bentonitic drilling fluids. Water-based bentonitic drilling fluids may be disposed as follows:

A. Drying and burial in drilling pits on non-crop land; or

B Land application as follows:

i. Applicability. Acceptable methods of land application include, but are not limited to, production facility construction and maintenance, lease and farm road maintenance, or lining of stock ponds and irrigation ditches.

ii. Land application requirements. The average thickness of water-based bentonitic drilling fluid waste applied shall be no more than three (3) inches prior to incorporation. The waste shall be applied to prevent ponding or erosion and shall be incorporated as a beneficial amendment into the native soils as soon as practicable. The resulting concentrations shall not exceed those in Table 910-1.

iii. Surface owner approval. Operators shall obtain written authorization from the surface owner prior to land application of water-based bentonitic drilling fluids.

iv. Operator obligations. Operators with control and authority over the wells from which the waterbased bentonitic drilling fluid wastes are obtained retain responsibility for the land application operation, and shall diligently cooperate with the Director in responding to complaints regarding land application of water-based bentonitic drilling fluids.

v. Approval. Prior Director approval is not required for reuse of water-based bentonitic drilling fluids for land application as a soil amendment or lining material.

e. Oily waste.

Oily waste includes those materials containing crude oil, condensate or other hydrocarbon containing E&P waste, such as soil, frac sand, drilling fluids, workover fluids, pit sludge, tank bottoms, pipeline pigging wastes, and natural gas gathering, processing and storage wastes.

(1) Oily waste may be treated or disposed as follows:

A. Disposal at a commercial solid waste disposal facility;

B. Land treatment onsite or with prior written surface owner approval, offsite land treatment; or

C. Land treatment at a centralized E&P waste management facility permitted in accordance with Rule 908.

(2) Land treatment requirements:

A. Free oil shall be removed from the oily waste prior to land treatment.

B. Oily waste shall be spread evenly to prevent pooling, ponding or runoff.

C. Contamination of ground water or surface water shall be prevented. 900-7 as of November 30, 2006

D. Biodegradation shall be enhanced by disking, tilling, aerating, addition of nutrients, microbes, water or other amendments, as appropriate.

E. Land-treated oily waste incorporated in place shall not exceed the allowable concentrations in Table 910-1.

F. When a threatened or significant adverse environmental impact from onsite land treatment exists, the Director may require operators to submit a Site Investigation And Remediation Workplan, Form 27. Treatment shall thereafter be completed in accordance with the workplan and Rules 909. and 910.

G. When land treatment occurs in an area not being utilized for oil and gas operations, operators shall obtain prior written surface owner approval.

908. CENTRALIZED E&P WASTE MANAGEMENT FACILITIES

a. Applicability.

Operators may establish non-commercial, centralized E&P waste management facilities for the treatment, disposal, recycling or beneficial reuse of E&P waste. This rule applies only to non-commercial facilities, which means the operator does not represent itself as providing E&P waste management services to third parties, except as part of a unitized area or joint operating agreement or in response to an emergency. Centralized facilities may include components such as land treatment or land application sites, pits and recycling equipment.

b. Permit requirements.

An application for permit including the following information shall be submitted to the Director for prior approval along with a filing and service fee established by the Commission (Appendix III):

(1) The name, address, phone and fax number of the operator, and a designated contact person.

(2) The name, address and phone number of the surface owner of the site, if not the operator, and the written authorization of such surface owner.

(3) The legal description of the site.

(4) A general topographic, geologic and hydrologic description of the site, including immediately adjacent land uses, a topographic map of a scale no

		<p>less than 1:24,000 showing the location, and the average annual precipitation and evaporation rates at the site.</p> <p>(5) Centralized facility siting requirements.</p> <p>A. A site plan showing drainage patterns and any diversion or containment structures, and facilities such as roads, fencing, tanks, pits, buildings, and other construction details.</p> <p>B. Scaled drawings of entire sections containing the proposed facility. The field measured distances from the nearer north or south and nearer east or west section lines shall be measured at ninety (90) degrees from said section lines to facility boundaries and referenced on the drawing. A survey shall be provided including a complete description of established monuments or collateral evidence found and all aliquot corners.</p> <p>C. Appropriate measures to limit access to the centralized facility by wildlife, domestic animals, and members of the general public shall be implemented.</p> <p>D. Centralized facilities shall have a fire lane of at least ten (10) feet in width around the active treatment areas and within the perimeter fence. In addition, a buffer zone of at least ten (10) feet shall be maintained within the perimeter fire lane.</p> <p>E. Surface water diversion structures, including, but not limited to, berms and ditches, shall be constructed to accommodate a one hundred (100) year, twenty four (24) hour event.</p> <p>(6) Waste profile. For each type of waste, the amounts to be received and managed by the facility shall be estimated on a monthly average basis. For each waste type to be treated, a characteristic waste profile shall be completed.</p> <p>(7) Facility design and engineering. Facility design and engineering data, including plans and elevations, design basis, calculations, and process description.</p> <p>(8) Operating plan. An operating plan, including, but not limited to, a detailed description of the method of treatment, loading rates, application of nutrients and soil amendments, dust and moisture control, sampling, 900-8 as of November 30, 2006 inspection and maintenance, emergency response, record-keeping, site security, hours of operation, and final disposition of waste. Where treated waste will be beneficially reused, a description of reuse and method of product quality assurance shall be included.</p> <p>(9) Ground water monitoring.</p> <p>A. The Director may require ground water monitoring for the purpose of preventing and mitigating threatened or actual significant adverse environmental impact or to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC standards and classifications by establishing points of compliance.</p> <p>B. Where monitoring is required, the direction of flow, ground water gradient and quality of water shall be established by the installation of a minimum of three (3) monitor wells, including an up-gradient well and two (2) down-gradient wells that will serve as points of compliance, or other methods authorized by the Director.</p> <p>c. Permit approval. The Director shall endeavor to approve or deny the properly completed permit within thirty (30) days after receipt and may condition permit approval as necessary to prevent any threatened or actual significant adverse environmental impact on air, water, soil or biological resources or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications.</p> <p>d. Financial assurance. The operator of a land treatment facility shall submit for the Director's approval such financial assurance as required by Rule 704.</p> <p>e. Facility modifications. Throughout the life of the facility the operator shall submit proposed modifications to the facility design, operating plan, permit data, or permit conditions to the Director for prior approval.</p> <p>f. Annual permit review. To ensure compliance with permit conditions and the 900 Series rules, the facility permit shall be subject to an annual review by the Director.</p> <p>g. Closure. A preliminary plan for closure shall be submitted with the centralized facility permit. A Site Investigation and Remediation Workplan, Form 27 shall be submitted sixty (60) days prior to closure for approval by the Director. The workplan shall describe the final closure plan.</p> <p>h. Operators may be subject to local requirements for zoning and construction of facilities and shall provide copies of notifications to local governments or other agencies to the Director.</p>
<p>Spills</p>	<p>COGCC Spill/Release Report, Form 19</p> <p>Site Investigation and Remediation Workplan, Form 27</p>	<p>906. SPILLS AND RELEASES</p> <p>a. General. Spills/releases of E&P waste, including produced fluids shall be controlled and contained immediately upon discovery. Impacts resulting from spills/releases shall be investigated and cleaned up as soon as practicable. The Director may require additional activities to prevent or mitigate threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource, or to the extent necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications. 900-4 as of November 30, 2006</p> <p>b. Reporting.</p> <p>(1) Spills/releases of E&P waste or produced fluid exceeding five (5) barrels, including those contained within unlined berms, shall be reported on COGCC Spill/Release Report Form, 19. Such report shall include information relating to initial mitigation, site investigation and remediation, and shall be submitted to the Director within ten (10) days of discovery of the spill/release.</p> <p>(2) In addition, spills/releases which exceed twenty (20) barrels of an E&P waste shall be verbally reported to the Director within twenty-four (24) hours of discovery.</p> <p>(3) In addition, spill/releases of any size which impact or threaten to impact any waters of the state, residence or occupied structure, livestock or public byway, shall be verbally reported to the Director as soon as practicable after discovery.</p> <p>c. Surface owner notification and consultation. The operator shall make good faith efforts to notify and consult with the surface owner prior to commencing operations to remediate E&P waste from a</p>

spill/release in an area not being utilized for oil and gas operations.

d. Remediation of spills/releases.

(1) Remediation workplan. When threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource from a spill/release exists or when necessary to ensure compliance with the allowable concentrations and levels in Table 910-1, with consideration to WQCC ground water standards and classifications, the Director may require operators to submit a Site Investigation and Remediation Workplan, Form 27.

(2) Remediation requirements. Spills/releases shall be remediated to meet the allowable concentrations in Table 910-1. Spills/releases exceeding twenty (20) barrels net loss of E&P waste shall be remediated in accordance with Rules 909. and 910.

e. Spill/release prevention.

(1) Secondary containment. Secondary containment shall be constructed or installed around tanks containing crude oil, condensate or produced water with greater than 10,000 milligrams per liter (mg/l) total dissolved solids (TDS). Operators are also subject to crude oil tank and containment requirements under Rules 603. and 604. This requirement shall not apply to water tanks with a capacity of one hundred (100) barrels or less.

(2) Spill/release evaluation. Operators shall determine the cause of a spill/release, and to the extent practicable, shall implement measures to prevent spills/releases due to similar causes in the future. For reportable spills, operators shall submit this information to the Director on the Spill/Release Report, Form 19 within ten (10) days after discovery of the spill/release.

909. SITE INVESTIGATION, REMEDIATION AND CLOSURE

a. Applicability.

This section applies to the closure and remediation of pits other than drilling pits constructed pursuant to Rule 903.a.(3).; investigation, reporting and remediation of spills/releases; permitted waste management facilities including treatment facilities; plugged and abandoned wellsites; sites impacted by E&P waste management practices; or other sites as designated by the Director.

b. General site investigation and remediation requirements.

(1) Sensitive Area Determination. Operators shall complete a sensitive area determination in accordance with Rule 901.e.

(2) Sampling and analyses. Samples and analysis of soil and ground water shall be conducted in accordance with Rule 910. to determine the horizontal and vertical extent of any contamination in excess of the allowable concentrations in Table 910-1.

(3) Management of E&P waste. E&P waste shall be managed in accordance with Rule 907.

(4) Pit evacuation. Prior to backfilling and site reclamation, E&P waste shall be treated or disposed in accordance with Rule 907. and the 1000 Series rules.

(5) Remediation. Remediation shall be performed in a manner to mitigate, remove or reduce contamination that exceeds the allowable concentrations in Table 910-1 in order to ensure protection of public health, safety and welfare, and to prevent and mitigate significant adverse environmental impacts. Soil that does not meet allowable concentrations in Table 910-1 shall be remediated. Ground water that does not meet allowable concentrations in Table 910-1 shall be remediated in accordance with a Site Investigation and Remediation Workplan, Form 27. 900-9 as of November 30, 2006

(6) Reclamation. Remediation sites shall be reclaimed in accordance with the 1000 Series rules for reclamation.

c. Site Investigation And Remediation Workplan, Form 27. Operators shall prepare and submit for prior Director approval a Site Investigation and Remediation Workplan, Form 27 for the following operations and remediation activities:

(1) Unlined pit closure when required by Rule 905.

(2) Remediation of spills/releases in accordance with Rule 906.

(3) Land treatment of oily waste in accordance with Rule 907.e.(2).F.

(4) Closure of centralized E&P waste management facilities in accordance with Rule 908.g.

(5) Remediation of impacted ground water in accordance with Rule 910.b.(4).

d. Multiple sites.

Remediation of multiple sites may be submitted on a single workplan with prior Director approval.

e. Closure.

(1) Remediation and reclamation shall be complete upon compliance with the allowable concentrations in Table 910-1, or upon compliance with an approved workplan.

(2) Notification of completion. Within thirty (30) days after conclusion of site remediation and reclamation activities operators shall provide the following notification of completion:

A. Operators conducting remediation operations in accordance with Rule 909.b. shall submit to the Director a Site Investigation and Remediation Workplan, Form 27, containing information sufficient to demonstrate compliance with these rules.

B. Operators conducting remediation under an approved workplan shall submit to the Director, by adding or attaching to the original workplan, information sufficient to demonstrate compliance with the workplan.

f. Release of financial assurance.

Financial assurance required by Rule 706. may be held by the Director until the required remediation of soil and/or ground water impacts is completed in accordance with the approved workplan, or until cleanup goals are met.

910. ALLOWABLE CONCENTRATIONS AND SAMPLING FOR SOIL AND GROUND WATER

a. Soil and ground water allowable concentrations.

The allowable concentrations for soil and ground water are in Table 910-1. Ground water standards and analytical methods are derived from the ground water standards and classifications established by WQCC.

b. Sampling and analysis.

(1) Existing workplans. Sampling and analysis for sites subject to an approved workplan shall be conducted in accordance with the workplan and the sampling and analysis requirements described in this rule.

(2) Methods for sampling and analysis. Sampling and analysis for site investigation or confirmation of successful remediation shall be conducted to determine the nature and extent of impact and confirm compliance with appropriate allowable concentrations.

A. Field analysis. Field measurements and field tests shall be conducted using appropriate equipment, calibrated and operated according to manufacturer specifications, by personnel trained and familiar with the equipment.

B. Sample collection. Samples shall be collected, preserved, documented, and shipped using standard environmental sampling procedures in a manner to ensure accurate representation of site conditions. 900-10 as of November 30, 2006

C. Laboratory analytical methods. Laboratories shall analyze samples using standard methods (such as EPA SW-846 or API RP-45) appropriate for detecting the target analyte. The method selected shall have detection limits less than or equal to the allowable concentrations in Table 910-1.

D. Background sampling. Samples of comparable, nearby, non-impacted, native soil, ground water or other medium may be required by the Director for establishing background conditions.

(3) Soil sampling and analysis.

A. Applicability. If soil contamination is suspected or known to exist as a result of spills/releases or E&P waste management, representative samples of soil shall be collected and analyzed in accordance with this rule.

B. Sample collection. Samples shall be collected from areas most likely to have been impacted, and the horizontal and vertical extent of contamination shall be determined. The number and location of samples shall be appropriate to the impact.

C. Sample analysis. Soil samples shall be analyzed for contaminants listed in Table 910-1 as appropriate to assess the impact or confirm remediation.

D. Reporting. Soil Analysis Report, Form 24 shall be used when the Director requires results of soil analyses.

E. Soil impacted by produced water. For impacts to soil due to produced water, samples from comparable, nearby non-impacted, native soil shall be collected and analyzed for purposes of establishing background soil conditions including pH and electrical conductivity (EC). Where EC of the impacted soil exceeds the allowable level in Table 910-1, the sodium adsorption ratio (SAR) shall also be determined.

F. Soil impacted by hydrocarbons. For impacts to soil due to hydrocarbons, samples shall be analyzed for TPH.

(4) Ground water sampling and analysis.

A. Applicability. Operators shall collect and analyze representative samples of ground water in accordance with these rules under the following circumstances:

- i. Where ground water contamination is suspected or known to exceed the allowable concentrations in Table 910-1;
- ii. Where impacted soils are in contact with ground water; or
- iii. Where impacts to soils extend down to the high water table.

B. Sample collection. Samples shall be collected from areas most likely to have been impacted, downgradient or in the middle of excavated areas. The number and location of samples shall be appropriate to determine the horizontal and vertical extent of the impact. If the concentrations in Table 910-1 are exceeded, the direction of flow and a ground water gradient shall be established, unless the extent of the contamination and migration can otherwise be adequately determined.

C. Sample analysis. Ground water samples shall be analyzed for benzene, toluene, ethylbenzene, xylene, and API RP-45 constituents, or other parameters appropriate for evaluating the impact.

D. Reporting. Water Analysis Report, Form 25 shall be used when the Director requires results of water analyses.

E. Impacted ground water. Where ground water contaminants exceed the allowable concentrations listed in Table 910-1, operators shall notify the Director, and submit to the Director for prior approval a Site Investigation and Remediation Workplan, Form 27, for the investigation, remediation, or monitoring of ground water to meet the required allowable concentrations.

**Table 910-1
ALLOWABLE CONCENTRATIONS AND LEVELS
Contaminant of Concern Allowable Concentrations**

Organics in Soil: EPA Method 8015 (modified) TPH-Non-Sensitive Area 10,000 mg/kg TPH-Sensitive Area 1,000 mg/kg
Organics in Ground Water: EPA Method 8020 1 Benzene 5 µg/l 1 Toluene 1,000 µg/l 1 Ethylbenzene 700 µg/l 1 Xylenes (Total) 1,400 to 10,000 µg/l 5 Inorganics in Soils ⁴ Electrical Conductivity (EC) <4 mmhos/cm or 2x background Sodium Adsorption Ratio (SAR) <12 pH 6-9
Inorganics in Ground Water Total Dissolved Solids (TDS) <1.25 x background 1 Chlorides <1.25 x background 1 Sulfates <1.25 x background 1
Total Metals in Soils: EPA Method 3050 4 Arsenic 41 mg/kg 2

		<p>Barium (LDNR True Total Barium) 180,000 mg/kg 2 Boron (Hot Water Soluble) 2 mg/l 2 Cadmium 26 mg/kg 2 Chromium 1,500 mg/kg 2 Copper 750 mg/kg 2 Lead 300 mg/kg 2 Mercury 17 mg/kg 2 Molybdenum 3 Nickel 210 mg/kg 2 Selenium 3 Silver 100 mg/kg 2 Zinc 1,400 mg/kg 2</p> <p>1Concentrations taken from CDPHE-WQCC 2Concentrations taken from API Metals Guidance: Maximum Soil Concentrations 3Concentrations are dependent on site-specific conditions 4Consideration shall be given to background levels in native soils 5For this range of standards, the first number in the range is a strictly health-based value, based on the WQCC's established methodology for human health-based standards. The second number in the range is a maximum contaminant level (MCL), established under the Federal Safe Drinking Water Act which has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. The WQCC intends that control requirements for this chemical be implemented to attain a level of ambient water quality that is at least equal to the first number in the range except as follows: 1) where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004 (regardless of the date of discovery or subsequent migration of such contaminants) clean-up levels for the entire contaminant plume shall be no more restrictive than the second number in the range or the ground water quality resulting from such release, whichever is more protective, and 2) whenever the WQCC has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.</p>	
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Florida				
Topic	Associated Forms	Regulations: http://www.dep.state.fl.us/geology/rules/oilngasrules.htm		
		Excerpted Text by Topic		
Permitting	<p>Application for Permit to Drill, Form 3</p> <p>Application for Permit to Operate Well, Form 14</p> <p>Well Record With Drillers Log, Form 8</p> <p>Well Completion Report, Form 9</p> <p>Monthly Well Production and Test Report, Form 10</p>	<p>Florida Administrative Code</p> <p>62C-25.006 Permits.</p> <p>Each person who conducts geophysical surveys (unless exempted by Rule 62C-26.007), drills an oil or gas related well (62C-26.003), or operates an oil or gas related well (a: produces or transports produced fluids from lease, b: disposes of saltwater via a Class II well, or c: injects fluids for pressure maintenance (62C-26.008)) shall first obtain a permit from the Department. Each of these activities requires a separate permit.</p> <p>(1) Ordinarily a single permit will be issued for drilling a well and either transporting test oil or injecting test fluids for a period of 90 days after testing is commenced. However, the Department reserves the right, on a well by well basis and depending on health and human safety or environmental sensitivity, to restrict a permit to drilling only and to require an operator to return to seek an operating permit (Form14) for transportation of test oil or injection of test fluids.</p> <p>(2) Operating Permits (Form 14) are required for each well not plugged and abandoned and, so long as the operator complies with all permit conditions, shall be valid for the life of the well. However, every five years from the date of the permit, the Department shall perform a comprehensive field inspection and file review for each such well and operating permit to verify full compliance. Operating permits are written to authorize operators to use wells for their intended purposes and should be obtained during testing phase.</p> <p>62C-26.003 Drilling Applications.</p> <p>The permittee shall notify all carried working interests in accordance with section 377.2411, F.S., and shall designate and distribute earnings owed unknown or unlocated owners in accordance with section 377.247, F.S.</p> <p>(1) Except as noted in 62C-26.003(4), no person shall begin any work other than making environmental assessments or surveying at the site of a proposed drilling operation of any well without first obtaining a permit to drill as specified in 62C-25.006. A separate permit is required for any viable bottom hole location not in compliance with 62C-26.004(10).</p> <p>(2) Each permit is valid for one year from the date of approval. If permitted activities are not begun within that time, the Department shall, upon written request of the permittee, extend the permit for an additional year. An additional fee of \$1,000 is required for this extension. Subsequent requests for extensions shall be treated as new applications.</p> <p>62C-30.001 General.</p> <p>Prior to Permitting any exploratory activity in the Big Cypress Swamp, the Department shall perform a preliminary site inspection on each and every proposed drilling site and shall solicit comments from regulatory and environmental agencies and organizations as well as from the general public. All Permitting decisions shall be based on sound scientific evidence and shall be designed to minimize pollution of water resources, interruption of sheet flow, and unnecessary destruction of wildlife or wildlife habitat.</p>		
Well Treatment, Stimulation and Fracturing		No specific regulation located		
Well Construction		<p>62C-27.005 Casing.</p> <p>The operator shall case and cement all wells so as to maintain well control and prevent degradation of other natural resources, including water and petroleum. All casing shall be new pipe or reconditioned so as to be equivalent to new pipe. After cementing, drilling shall be discontinued for 12 hours if float valves are used; 24 hours if such valves are not used or do not hold pressure.</p> <p>(1) Surface casing.</p> <p>Surface casing shall be set below the deepest USDW and cemented to the surface. If circulation is lost, a survey shall be run and if a seal to a point at least 100 feet above the base of the deepest freshwater aquifer has not been achieved, remedial measures will be taken to do so.</p> <p>(a) Lost Circulation. Surface casing may be set above the deepest USDW if necessitated by lost circulation zones provided the operator implements an alternate and equally effective method of protecting such aquifers.</p> <p>(b) Minimum Depth. The minimum acceptable surface casing depths are based on the proposed total depth of the well or the first full string of intermediate casing in true vertical feet from the rotary table and are as follows:</p>		
		Minimum Surface Casing (Feet)		
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50%;">Well Depth</td> <td style="width: 50%;">Surface Casing</td> </tr> </table>	Well Depth	Surface Casing
Well Depth	Surface Casing			

0 -- 7,000	1,500
7,000 -- 9,000	1,750
9,000 -- 11,000	2,250
11,000 -- 13,000	3,000
13,000 -- Below	3,500

(2) Intermediate Casing.

The intermediate casing shall be set and cemented in accordance with generally accepted industry standards and practices. If a liner is used as intermediate casing, the liner seal shall be pressure tested to determine whether a seal between the liner top and next larger string has been achieved. The test shall be recorded on the driller's log. When such liner is used as production casing, it shall be extended to the surface and cemented as described above to avoid surface casing being used as production casing.

(3) Production/Injection Casing.

Production casing shall be set and cemented in accordance with generally accepted industry standards and practices. However, a sufficient quantity of cement to fill the annular space at least 1,500 feet above the uppermost producible hydrocarbon zone must be used. When a liner is used as production casing, the testing of the seal between the liner top and next larger string shall be conducted as in the case of intermediate liners.

(4) Pressure Tests.

All casing strings except the conductor shall be pressure tested as specified below prior to well completion or drilling out after cementing. These tests shall not exceed the working pressure of the casing.

Minimum Surface Test Pressure

CASING STRING	(whichever is greater)
(a) Surface	1000 (psi)
(b) Intermediate	1500 or 0.2 psi/ft. of depth
(c) Liner	1500 or 0.2 psi/ft. of depth
(d) Production	1500 or 0.2 psi/ft. of depth
(e) Tubing and Packer	1000 or 0.2 psi/ft. of depth

(5) Retests.

These pressure tests shall be thirty minutes long and shall have no more than a 10 percent pressure drop. If there is an indication of a leak, necessary remedial measures will be taken and the casing retested. All pressure tests will be recorded in the driller's log and may be witnessed by an agent of the Department.

(6) Tubing and packer pressure tests are waived for Type II Wells.

Specific Authority 377.22 FS. Law Implemented 377.22 FS. History--New 11-26-81, Formerly 16C-27.05, Amended 6-4-89, 5-12-93, Formerly 16C-27.005, Amended 3-24-96.
62C-29.007 Pressure Tests.

(1) Type I Wells. The production casing, tubing, and packers in all Type I wells shall be tested to a pressure equivalent to the length of production casing multiplied by .1 psi/ft. This pressure shall be applied at the surface for 30 minutes with no more than a 10% pressure drop. If there is evidence of a leak or an invalid test, necessary remedial measures shall be taken, and the casing retested. This pressure test shall be conducted after every fishing job or if requested by the Department. All pressure tests shall be recorded on the driller's log.

(2) Type II Wells. The production casing, tubing, and packers in all Type II wells shall be pressure tested in the same manner as Type I well except that the test pressure shall be half as great.

Temporary Abandonment/ Shut- in Status

No specific regulation located

Well Plugging

62C-29.009 Plugging and Abandonment of Wells.

Operators must obtain Department approval prior to commencing plugging operations. To apply, operators may contact either the Chief or his agent and request authorization to plug and abandon the well and restore the site. Operators must specify exactly how the well will be plugged and the site restored. Oral approval to plug and abandon shall be granted when the operator meets the criteria defined in this section.

(1) Pulling of Casing from an Abandoned Hole. Before pulling casing from an abandoned hole the operator shall obtain approval from the Department for reentry into the well. To apply, the operator must submit a written request to the Chief, Florida Geological Survey, 903 West Tennessee Street, Tallahassee, Florida 32304. The Department shall approve the request when the operator meets the criteria specified in this section. All requests shall contain an Organization Report (62C-25.008), Performance Surety (62C-26.002), well diagram, proposed procedure, and replugging schedule.

(2) Permanent Abandonment. The Department recognizes that no single plugging and restoration schedule can suffice for all wells. However, the following criteria will apply to most wells; others shall be handled in accordance with 62C-25.001(5).

(a) Uncased-hole plugs: Cement plugs shall be placed in uncased portions of wells as necessary to prevent the migration of formation fluids from one zone to another. These plugs shall be placed in accordance with the following criteria.

1. All nonproductive intervals containing shows of hydrocarbons shall be isolated from the wellbore by placing a minimum cement plug of 200 feet in length across the showing interval. Such plugs shall extend from 100 feet below to 100 feet above the show and shall be verified by either tagging with 15,000 pounds of drill stem weight or pumping sufficient excess cement to guarantee proper placement.

2. All nonproductive intervals which are or have been productive within 5 miles of the well being plugged shall be isolated and

		<p>verified in accordance with (a)1. above.</p> <p>3. All flows of saltwater requiring 12 or more pounds per gallon to control shall be isolated as in (a)1. above and the plugs verified by tagging with 15,000 pounds of drill stem weight.</p> <p>4. Underground Sources of Drinking Water shall be isolated from adjoining saline zones by a minimum cement plug of 400 feet extending from 200 feet below to 200 feet above the base of the USDW. Such plugs shall be verified by tagging with sufficient drill stem weight to guarantee proper placement of the plug.</p> <p>5. Freshwater zones shall be isolated from nonfreshwater zones as in (a)4. above and the plugs verified in a like manner.</p> <p>6. All intervals between any of the above plugs may be filled with drilling fluid.</p> <p>(b) Cased Hole Plugs:</p> <p>1. Perforated Interval Plugs: No perforation shall be permitted to remain open upon abandonment. Either a cement retainer shall be set a minimum of 100 feet above the open perforation interval with cement squeezed into the perforation interval and 50 feet of cement placed on top of the retainer, or a 200 foot cement plug placed to extend from 100 feet below to 100 feet above the perforations. If a cement retainer is not used or does not hold pressure, this plug shall be verified by either tagging with 15,000 pounds of drill stem weight or by utilizing an amount of cement 100% in excess of that needed for the 200 foot plug. If cement can not be squeezed below a properly operating cement retainer, then a 200 foot cement plug shall be set on top of the retainer.</p> <p>2. Casing Seat Plugs: Where there is open hole below any casing seat, a cement plug shall be placed at the base of the string, extending at a minimum from 150 feet below to 150 feet above the casing shoe. If a cement retainer is used, it should be set not less than 50 feet nor more than 100 feet above the casing shoe and the cement plug placed so that it will extend at least 100 feet below the casing shoe and 100 feet above the retainer. If a retainer is not used or fails to hold pressure, the plug shall be verified by tagging with 15,000 pounds of drill stem weight. In the event lost circulation conditions were encountered immediately below the casing shoe so that any attempted casing seat plug would be lost to the formations below, a permanent type bridge plug shall be set within 100 feet of the casing shoe and 200 feet of cement placed on top of the bridge plug. Regardless of the method used to set this plug, the pipe, unless it is to be cut and recovered, shall be tested by placing on it a minimum pump pressure of 1000 psig. No more than a 10% pressure drop during a 30 minute test period shall be allowed. If this test fails, necessary remedial measures shall be taken and the pipe retested and plugged in accordance with (a)4. above.</p> <p>3. Casing-Stub Plugs. When casing is cut and recovered, a cement plug 200 feet in length shall be placed at the base of the cut so that the plug extends from 100 feet below to 100 feet above the stub. This plug shall be verified as directed by the Department's agent.</p> <p>(c) Up Hole Plugs:</p> <p>1. USDW Plugs. All casing strings not cemented to the surface shall be cut not less than 200 feet below the base of the deepest USDW and pulled out of the hole. A cement plug shall then be set across the USDW as described in (a)4. above. If the casing seat depth exceeds the required plug depth and cannot be cut and pulled out of the hole, then the plug shall be set inside the casing.</p> <p>2. Freshwater Plug. A cement plug shall be set across the freshwater interval as described in (a)5. above. If the surface casing seat depth exceeds the required plug depth, then the plug shall be set inside the surface casing.</p> <p>3. Annular Space Plugs. No annular space connecting saline water intervals with freshwater intervals or the surface with the drilled hold below shall be allowed to exist. If such space exists it shall be destroyed by cutting and recovering the necessary casing strings as described in (c)1. above. In the event that it is physically impossible to recover such casing, the operator shall devise an alternate method to accomplish the same result. Such alternate method must have prior approval of the Department's agent.</p> <p>4. Surface Plug. A 100-foot cement plug shall be placed in the top of the largest string of pipe cemented to the surface. This plug shall extend from the top of the casing downward the required distance. A 1/2 inch thick steel plate shall be welded across the top of the casing.</p>
Tanks		<p>62C-28.004 Production and Production Facilities.</p> <p>(3) Production Facilities and Equipment.</p> <p>All production facilities and related equipment shall be designed and maintained as necessary to prevent pollution. Each piece of equipment, including flowlines, valves, fittings, separators, heater treaters, pumps, coolers, storage tanks, etc., shall be properly maintained to perform its design function and shall be removed from the location when no longer used or useful. High-low pressure and level sensors and shut down devices, pressure relief valves, check valves, gas detection systems, testing schedules and procedures, etc. shall all be designed, tested and operated in accordance with generally accepted industry standards and practices. Housekeeping shall be sufficient to maintain human health, safety, and environmental protection. Bonds and securities required under 62C-26.002, F.A.C., cover production facilities and tank batteries associated with the covered well and cannot be released until these facilities are removed and the sites restored unless the facilities are also covered under a different well security.</p> <p>(4) Secondary Containment Facilities.</p> <p>All new tank batteries and those renovated subsequent to this rule shall be constructed upon pads certified by a registered professional engineer to be relatively impermeable to hydrocarbon and saltwater spills. These pads shall be surrounded by dikes or fire walls of sufficient size and strength to contain twice the volume of the largest storage tank within the diked area. The containment pads shall be sloped so as to drain surface fluids away from storage tanks and shall be kept clean and free of liquids. Drain lines with locked valves shall be installed through the fire walls at the lowest point of the containment facility but fluids may be drained only in accordance with NPDES and other permits and these rules.</p> <p>(5) Storage Tanks.</p> <p>Crude oil storage tanks shall be equipped with equalizing overflow lines. Such tanks, when constructed or refurbished subsequent to this rule shall be, unless an exception is granted pursuant to Rule 62C-25.001, installed on foundations above the floor of the containment area so that any leaks can be readily seen immediately around the tanks. Tanks containing sour fluids shall be equipped so that they can be gauged, sampled, and the temperature measured at ground level. All tanks shall be installed, maintained, pressure tested, and protected against corrosion in accordance with generally accepted petroleum industry standards and practices.</p>
Pits		<p>62C-27.001 General.</p> <p>(4) Mud Tanks, Reserve Pits, and Dikes.</p> <p>Before spudding the well, mud tanks of sufficient size to hold the active mud volume at the surface shall be installed for containment of all active drilling fluids. Earthen mud pits shall not be used for this purpose.</p>

		<p>(a) Additional Requirements. In national and state forests and parks, in wetlands, and in other sensitive areas, prefabricated tanks and drip pans shall be required for the containment of all waste fluids and, on a site specific basis, reserve pits must be either lined with impermeable material or reserve pit fluids intermittently pumped down the wellbore to reduce hydrostatic head.</p> <p>(6) Drill Stem Tests. All drill stem tests shall be conducted in accordance with generally accepted industry standards and practices and shall be concluded only during daylight hours. Prefabricated tanks shall be used to contain all produced fluids and a gas flare system with automatic ignition and scrubbers shall be used to safely flare gas and prevent spills. Flare pits shall be lined and the fluid level kept to a minimum. Earthen flare pits shall not be used for long-term production.</p>
Exempt Waste Handling		<p>62C-29.009 Plugging and Abandonment of Wells.</p> <p>(d) Restoration of location. 1. Mud pits. All fluids and recoverable slurry that remain in the pits shall be either returned to the wellbore below all USDW during the process of plugging, placed between plugs in the casings, or removed to an approved land fill.</p>
Spills		<p>62C-28.004 Production and Production Facilities.</p> <p>(2) Spill Prevention and Clean Up Plan (SPCP). Every person operating a well or field in Florida shall devise and submit to the Department a plan designed to prevent spills of crude oil and associated fluids and to expeditiously remove these fluids from the environment should a spill occur. These plans must be field specific and, where more than one operator exists in a field, must be coordinated with each of the other operators. In such cases, one plan shall be devised and submitted to the Department on behalf of each operator involved. These plans shall be kept current and shall at a minimum identify each potential spill source, outline protective measures taken to avoid a spill at that point, list and show location of equipment to be used in an emergency, and specify what action has been planned to remove each such spill that might occur. Field maps showing wells, flowlines, tank batteries, access roads, treating facilities, gathering lines, and associated facilities must be included and updated as changes occur. Equipment necessary to rapidly control spills and to comply with SPCP's shall be maintained readily available at all times. See 62C-26.008(3)(d) and 62C-28.004(7).</p> <p>(7) Control and Removal. Immediate corrective action shall be taken in accordance with the operator's SPCP to rapidly bring any spill under control and to clean up the site without delay. If a relatively minor spill or a spill of undetermined size occurs adjacent to or beneath permanent structures such as storage tanks, pump foundations, pipelines, etc., and complete excavation is not practical, the Department shall require that the site be monitored for possible ground water contamination. Monitoring includes installation and periodic sampling of monitor wells and/or surface water bodies. If levels of hydrocarbons or dissolved chlorides occur above background levels, continued monitoring or site clean up will be required in accordance with 62-770, F.A.C.</p> <p>62C-28.005 Notification of Blowouts, Fires, Breaks, Leaks, and Spills.</p> <p>(1) Any operator spilling crude petroleum or associated fluids into the environment shall immediately notify the Department and any other agency having jurisdiction and shall immediately confirm in writing all such spills greater than 5 barrels. (2) The operator shall, in the event of a blowout or other emergency, bring the situation under control as rapidly as possible. If not, the Department shall do so at the operator's expense.</p>

Illinois		
Topic	Associated Forms	Regulations: http://www.dnr.state.il.us/legal/adopted/62-240.pdf
		Excerpted Text by Topic
Permitting	Permit Application to Drill, Deepen or Convert a Well, Form OG-10	<p>Illinois Administrative Code Oil and Gas Rules and Regulations</p> <p>Section 240.210 Application for Permit to Drill, Deepen or Convert to a Production Well</p> <p>a) No person shall drill, deepen or convert any well to a production well without a permit from the Department.</p> <p>b) Application for a permit to drill, deepen or convert to a production well shall be made on forms prescribed by the Department. The application shall be executed under penalties of perjury, and accompanied by the non-refundable fee of \$100.00 and the required bond under Subpart O.</p> <p>c) If the application does not contain all of the required information or documents, the Department shall notify the applicant in writing. The notification shall specify the additional information or documents necessary to an evaluation of the application, and shall advise the applicant that the application will be deemed denied unless the information or documents are submitted within 60 days following the date of notification.</p> <p>d) Any well for which a permit is required under the Act, other than a plugged well, which was drilled prior to the effective date of the Act and for which no permit has previously been issued, is required to be permitted. Application for a permit shall be made on forms prescribed by the Department. The application shall be executed under penalties of perjury, and accompanied by the required bond under Subpart O and existing well construction information reported on Department forms. If application is made on or before August 14, 1991, no permit fee is required. An application made after that date shall be accompanied by the non-refundable fee of \$100. Spacing requirements and provisions of the Act and these rules pertaining to well construction shall not apply. After August 14, 1991, any unpermitted well to which this subpart applies will be deemed to be operating without a permit and subject to the penalties set forth in the Act. (Section 12 of the Act)</p>
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Well Completion Report, Form OG-9	<p>Section 240.610 Construction Requirements for Production Wells</p> <p>a) Surface Casing Requirements for Wells Drilled After May 13, 1994</p> <p>1) Steel surface casing or fiberglass casing meeting API standards (Fiberglass Casing and Tubing; 15AR, May 1987, published by the American Petroleum Institute, 1220 L Street NW, Washington, D.C. 20005-4070; no later editions or amendments included) shall be set to a depth of at least 100 feet, or 50 feet below the base of the freshwater, whichever is deeper, unless an alternative surface casing procedure is used as outlined in subsection (b).</p> <p>2) Surface casing or alternative surface casing shall be set under the supervision of a representative of the Department and the permittee shall give at least 24 hours notice to the District Office prior to setting the surface casing. In lieu of a Department representative being present during the setting of surface casing, the District Office may approve the submission of cement and casing records verifying the setting of surface casing. If cement and casing records are requested, the permittee shall provide the records immediately following completion of the work.</p> <p>3) Surface casing shall be cemented in place by circulating cement behind the surface casing from the setting depth of the casing to the surface.</p> <p>4) The cement shall be allowed to set in place until it has developed sufficient strength to allow drilling to resume, but no less than 4 hours.</p> <p>b) Alternative Surface Casing Procedures</p> <p>1) Prior to the commencement of drilling, the permittee shall notify the District Office for the county where the well will be located of the permittee's intent to use an alternative surface casing procedure.</p> <p>2) Notice shall be given on a form prescribed by the Department and received in the District Office at least 24 hours prior to the commencement of drilling.</p> <p>3) The following alternative surface casing procedures may be used unless the well is located over a coal mined out area or a gas storage field:</p> <p>A) If the unconsolidated material is less than 25 feet thick, no surface casing is required but a cement basket shall be set 50 feet below the base of the freshwater and the production casing shall be either cemented to surface from total depth or cemented from the cement basket to surface.</p> <p>B) If the unconsolidated material is greater than 25 feet thick, surface casing is required to be set and cemented, in accordance with subsection (a), to the top of the bedrock, and the production casing shall be either cemented to surface from total depth or cemented from the cement basket (placed 50 feet below the base of the freshwater) to surface.</p> <p>C) For wells in which the total depth is less than 500 feet below the base of the freshwater, no surface casing or cement basket is required, but the production casing shall be cemented from total depth to surface.</p> <p>4) For wells located over a coal mined out area or a gas storage field:</p> <p>A) at least 100 feet of surface casing and cement shall be set before drilling to the depth of the mined out area, into the mined out area or to the depth of the gas storage zone; and</p> <p>B) a cement basket shall be set 50 feet below the base of the freshwater and the production casing shall be cemented from the basket to the surface or, if required under Section 240.1360, a mine string shall be set in accordance with Section 240.1360(b).</p> <p>c) Production Casing Requirements for Wells Drilled After May 13, 1994</p> <p>Production casing shall be set and cemented in place by circulating cement behind the production casing from the setting depth of the casing to a minimum of 250 feet above the shallowest producing interval. The casing shall be set no higher than 50 feet above the top of the uppermost producing interval in an open hole completion.</p> <p>d) Production Casing Requirements for Wells Drilled Prior to May 13, 1994</p>

		<p>1) For all existing wells without production casing: A) If surface casing was previously set, production casing shall be set and cemented a minimum of 250 feet in accordance with subsection (c). B) If surface casing was not previously set, production casing shall be set and cemented to surface.</p> <p>2) Wells drilled prior to May 13, 1994 that contain drive pipe without cement behind the drive pipe will require no further cementing work.</p> <p>e) Tubing and Packer in Flowing Wells All wells flowing as a result of an enhanced oil recovery project shall be produced through tubing and packer. The packer shall be set within 200 feet of the top of the producing interval and within the cemented portion of the production casing. The permittee shall contact the District Office in which the well is located at least 24 hours prior to the initial setting or any resetting of the packer to enable an inspector to be present when the packer is set.</p>
<p>Temporary Abandonment/ Shut-in Status</p>	<p>Request for Future Use Permits, Form OG-15</p> <p>Notice of Termination of Future Use Status for a Production Well, Form OG-15A</p>	<p>Section 240.1130 Plugging and Temporary Abandonment of Inactive Production Wells</p> <p>a) Any idle production well on an active lease or unit that has not been in operation for 24 consecutive months shall be deemed abandoned, in accordance with Section 240.1600(c) of this Part, and plugged in accordance with Section 240.1140 of this Part unless the well has been approved for Future Use status in accordance with subsection (c).</p> <p>b) Any idle production well on an inactive lease or unit, where the lease or unit has not been in operation for 24 consecutive months shall be deemed abandoned and not eligible for Future Use status pending a hearing held in accordance with Section 240.1610.</p> <p>c) The permittee shall apply for Future Use status by making written application on forms provided by the Department. The Department may place the well on Future Use status and issue a Future Use permit, if the well meets the following conditions (which shall be continuing requirements):</p> <ol style="list-style-type: none"> 1) The well: <ol style="list-style-type: none"> A) shall have proper bond in effect in accordance with the Act, if applicable; and B) cannot be the subject of any final administrative decision for abandonment. 2) The well shall have an intact leak free wellhead or be capped with a valve, and configured to monitor casing or annular pressure. 3) If the well is a permitted gas well and the well has a sustained gas pressure at the surface, the requirements of subsections (c)(5) and (6) do not apply. 4) The wellhead shall be above ground level. 5) The fluid level is no higher than 100 feet below the base of the freshwater as evidenced by an annual fluid level test conducted by the permittee after notice to and under the supervision of the Department, using acoustical or wire line measuring methods. If the Department authorizes the permittee to conduct an annual fluid level test without the presence of a well inspector, the permittee shall report the annual fluid level test on a form prescribed by the Department. The fluid level test shall be conducted annually unless the permittee elects to satisfy the requirements of subsection (c)(6)(A) or (B). 6) If the fluid level, as tested, is higher than 100 feet below the base of the freshwater, the permittee, under the supervision of the Department, shall: <ol style="list-style-type: none"> A) set a cast iron plug within 200 feet above the perforated or open hole interval in the cemented portion of the production casing, but no less than 100 feet below the base of the freshwater, remove any fluid to a level at least 100 feet below the base of the freshwater zone, and monitor the fluid level annually in accordance with subsection (c)(5); or B) set a cast iron plug within 200 feet above the perforated or open hole interval in the cemented portion of the production casing, but no less than 100 feet below the base of the freshwater, and pressure test the casing by maintaining a pressure of 300 PSIG (which may vary no more than 5%) for a period of 30 minutes. d) If a Future Use request is denied, the permittee shall within 90 days, plug the well or correct the deficiency that caused the denial and secure an approved Future Use permit. e) Future Use status for production wells shall not be terminated until the well is active for a period of one year and a Future Use termination request is approved by the Department. Future Use termination requests shall be on a form prescribed by the Department and shall be accompanied by evidence of the sale of oil or natural gas during the preceding 12 month period. f) Future Use status will be granted annually provided the wells remain in compliance with subsection (c) of this Section and the lease or unit on which the wells are located remains active.
<p>Well Plugging</p>		<p>Section 240.1140 General Plugging Procedures and Requirements</p> <p>a) Notification of District Office The permittee shall contact the District Office at least twenty-four (24) hours prior to plugging a cased well, or as soon as possible after determination has been made to plug an uncased well.</p> <p>b) Well Drilling and Construction Data For all cased wells, the permittee shall have a well log and the well completion report at the site for review by the well inspector at the scheduled time of plugging. If the permittee cannot locate well logs or the well completion report, the permittee shall make available at the site copies of any logs and well construction records maintained by the Illinois State Geological Survey. For all uncased wells, all available drilling and well construction information shall be at the well site for review by the well inspector at the time of plugging.</p> <p>c) Foreign Material Prohibited</p> <ol style="list-style-type: none"> 1) Except for an unavoidable loss of drilling or logging tools or producing equipment, placing or lodging any material or substance, in an unplugged well to either fill or bridge the hole for the purpose of avoiding proper plugging procedures is prohibited. 2) Foreign materials which have been placed in the hole shall be removed before plugging operations are commenced. <p>d) Plugging A Bridged Well When a well becomes plugged or obstructed because of the loss of drilling or logging tools or producing equipment, which would be impractical to remove, the Department may vary the plugging requirements of this Section and specify alternative plugging requirements. In determining whether to approve and in selecting alternative plugging requirements, the Department shall consider the time and cost of removing lost tools or equipment, the potential for damage to fresh water and coal seams and the depth of the lost tools or equipment in relation to the depth of fresh water zones and coal seams, and well construction characteristics.</p>

		<p>Section 240.1150 Specific Plugging Procedures</p> <p>a) Circulation of Cement Cement may be circulated from total depth or plugged back total depth to surface in lieu of the placing of plugs specified in subsection (b), (c) and (d) below, provided both the workable coal and the fresh water zones have been protected by cement in direct contact with both strata.</p> <p>b) Producing Interval Plug</p> <p>1) Cased Wells</p> <p>A) When using the Circulation Method, a cement plug shall be placed opposite each perforated interval, and each interval that is exposed after removal of production casing which has produced oil or gas or into which injection is occurring within 1/4 mile radius of the well, and extend fifty (50) feet below the deepest perforated interval, total depth, or plugged back total depth, and extend to fifty (50) feet above the shallowest perforated interval or fifty (50) feet above the open hole interval.</p> <p>B) When using the Dump Bailer Method, a cast iron plug shall be set immediately above each perforated interval, and each interval that is exposed after removal of production casing which has produced oil or gas or into which injection is occurring within 1/4 mile radius of the well, and a minimum of ten (10) feet of cement placed on top of each cast iron plug . As an alternative to setting a cast iron plug, a standard cement pump down plug can be placed in the well and a minimum of fifty (50) feet of cement placed on top of each plug. To insure the cement plug has been properly set, the cement plug shall be tagged after a minimum of two (2) hours. The use of the cement pump down plug is prohibited if the well is flowing fluid to the surface.</p> <p>2) Uncased Wells Wells shall be filled with mud before commencement of plugging operations and a cement plug shall be placed opposite any exposed interval which has produced oil or gas or into which injection is occurring within 1/4 mile radius of the well. The cement plug shall extend from 50 feet below the exposed zone to fifty (50) feet above the zone. The cement plug may be placed using either the circulation or dump bailer method.</p> <p>c) Coal plugs – A plug shall be placed across each workable coal seam in accordance with Section 240.1151 of this Part.</p> <p>d) Surface Plug – Surface casing shall not be pulled from any well and a cement plug shall be placed across the fresh water zones using either the circulation or dump bailer method as follows:</p> <p>1) Wells with surface casing</p> <p>A) If surface casing extends fifty (50) feet below the fresh water zones with cement circulated to the surface, a cement plug shall be placed in direct physical contact with the strata and surface casing from twenty five (25) feet below the setting depth of the surface casing and extend to the surface. If production casing is left in the hole and there is no cement behind the production casing, cement shall be placed inside and outside of the production casing from twenty five (25) feet below the setting depth of the surface casing and extend to the surface. Cement shall be placed outside of the production casing by perforating the casing 25 feet below the setting depth of the surface casing and squeezing cement behind the production casing to the surface, or by inserting tubing down the backside of the production casing to a depth of 25 feet below the setting depth of the surface casing and circulating cement to the surface.</p> <p>B) If surface casing does not extend fifty (50) feet below the base of the fresh water zone, a continuous cement plug shall be placed in direct physical contact with strata from a depth of fifty (50) feet below the base of the fresh water zone to the surface. If production casing is left in the hole and there is no cement behind the production casing, cement shall be placed inside and outside of the production casing from fifty (50) feet below the base of the fresh water zone and extend to the surface. Cement shall be placed outside of the production casing by perforating the casing 50 feet below the base of the fresh water zone and squeezing cement behind the production casing to the surface, or by inserting tubing down the backside of the production casing to a depth of 50 feet below the base of the fresh water and circulating cement to the surface.</p> <p>2) Wells without a surface casing – A cement plug shall be placed from a depth of fifty (50) feet below the base of the fresh water zones to the surface.</p> <p>e) Plugging Requirements for Wells with Uncemented Casings. When the Department determines that the plugging procedures set forth in this Section cannot be followed due to well construction and the lack of cement behind the casings, the Department will authorize the following alternative plugging procedures:</p> <p>1) the production casings shall be removed from a point at least fifty (50) feet below the base of the fresh water, the hole filled with mud, and a Surface Plug set in accordance with subsection (d) above;</p> <p>2) if the production casings cannot be removed to a depth at least fifty (50) feet below the base of the fresh water, all casings contained within the outermost casing shall be removed to a depth at least fifty (50) feet below the base of the fresh water, and the outermost casing in direct contact with the borehole wall shall be perforated, ripped or parted at an interval fifty (50) feet below the base of the fresh water to permit cement to infiltrate the annulus between the casing and the borehole wall. The hole shall be filled with mud, the perforated, ripped or parted interval shall be squeezed with cement, and a Surface Plug must be set in accordance with subsection (d) above.</p> <p>3) if the well cannot retain mud because the producing interval takes fluid, the producing interval shall be covered with sand, crushed rock or other similar material to provide an anchor on which to place the column of mud, and the hole shall be filled with mud and a surface plug set in accordance with subsections (e)(1) or (2) above.</p>
<p>Tanks</p>	<p>Permittee Tank Battery Registration, Form OG-19</p>	<p>Section 240.810 Tanks, Tank Batteries and Containment Dikes</p> <p>a) Tank Battery Registration</p> <p>1) All new tank batteries constructed after July 1, 2001 shall be registered with the Department, when the tank battery is constructed, by the permittee of the wells on the lease where the tank battery is located. Registration shall be on a form prescribed by the Department.</p> <p>2) All tank batteries existing on July 1, 2001 are required to be registered with the Department, by the permittee of the wells on the lease where the tank battery is located.</p> <p>3) All tank batteries shall be transferred, at the time of associated well transfers, on forms prescribed by the Department.</p> <p>4) No fee will be charged for tank registration and tank battery transfer.</p> <p>5) The tank battery registration number shall be displayed on the tank battery.</p> <p>b) Tank and Tank Battery Requirements</p>

		<ol style="list-style-type: none"> 1) All tanks and tank batteries containing produced fluids or equipped to receive produced fluids shall be surrounded by containment dikes. 2) Tanks shall not be buried. 3) All tanks shall be maintained in a leak-free condition. 4) All open top tanks shall be covered with bird netting, or other system designed to keep birds and flying mammals from landing in the tank. 5) New tank batteries constructed after July 1, 2001 shall not be located: <ol style="list-style-type: none"> A) within 200 feet of an existing occupied dwelling, unless the current owner of the structure has provided a written waiver consenting to the construction closer than 200 feet, in which case the tank battery shall be completely fenced to prevent unauthorized access; or B) within 200 feet of a stream, body of water, or marshy land, unless the permittee can demonstrate to the Department that construction standards or topography will prevent accidental discharge into these features. <p>c) Containment Dike Construction</p> <ol style="list-style-type: none"> 1) A containment dike shall have a capacity of at least 1½ times the largest tank it contains, and be bermed at least 18 inches above the average ground surface surrounding the outside of the containment dike. 2) Containment dikes shall be constructed of native soil. In areas of sand, containment dikes shall be constructed of clay soils and the bottom of the dike area shall be lined with at least 6 inches of clay soil. 3) Containment dikes shall not have any breach or other uncontrolled conduit that penetrates the dike and allows the discharge of produced water, liquid oilfield wastes or stormwater. 4) Discharge of produced fluids, stormwater or other liquid oilfield wastes is prohibited, unless the permittee obtains an NPDES permit from the Illinois Environmental Protection Agency (IEPA). <p>d) Containment Dike Maintenance</p> <ol style="list-style-type: none"> 1) The area within the dike shall remain free of liquid oilfield waste, general oilfield waste, equipment debris, stormwater runoff and excessive vegetation. 2) Any spill or discharge of produced fluids or other liquid oilfield wastes occurring within a containment dike shall be remediated in place in accordance with Section 240.891(a). 3) Any spill escaping from a containment dike shall be cleaned up in accordance with Section 240.890 and 240.895 of this Part.
<p>Pits</p>	<p>Application to Construct a Concrete Storage Structure, Form OG-11</p>	<p>Section 240.530 Completion Fluid and Completion Fluid Waste Handling and Storage</p> <p>c) Completion and Workover Pits</p> <ol style="list-style-type: none"> 1) Pits used for completion fluids and completion fluid wastes shall be constructed with sufficient capacity to contain the fluids within the pits, and maintained in a manner that reasonably prevents against overflow during completion or workover activities and prior to commencing pit restoration in accordance with Section 240.540 of this Part. Discharge of completion fluids and completion fluid wastes from the pits into any surface water or water drainage way is prohibited. 2) The sediment pit or the drilling fluid circulation pit used during drilling operations may be used for the collection of completion fluid wastes during completion activities. If either pit is used as a completion pit, drill cuttings and drilling fluids shall first be removed and a dike constructed to prevent completion fluid wastes from entering the other pit. 3) Completion or workover pits used to store completion fluids prior to use in the well shall be lined with a liner at least 20 mils in thickness. 4) Completion or workover pits shall be used only for the temporary storage of completion fluids and completion fluid wastes in accordance with the requirements of this subsection, and shall not be used for the disposal of general oilfield wastes. <p>Section 240.850 Concrete Storage Structures</p> <p>a) The requirements of this Section apply to:</p> <ol style="list-style-type: none"> 1) All concrete storage structures existing on July 1, 1995 which will continue to be used. 2) Any new concrete storage structures constructed after May 13, 1994. <p>b) Definitions</p> <p>"Concrete Storage Structure", as used in this Section, is a formed concrete impoundment, the base of which is at or below ground level, used for temporary storage of liquid oilfield waste or produced water prior to disposal.</p> <p>"Existing Concrete Storage Structure" means a concrete storage structure constructed prior to May 13, 1994.</p> <p>"New Concrete Storage Structure" means a concrete storage structure permitted and constructed after May 13, 1994.</p> <p>c) Concrete Storage Structure Permitting Procedures</p> <p>All new concrete storage structures constructed after May 13, 1994 are required to be permitted and may not be used until the permit is issued. All existing concrete storage structures constructed prior to May 13, 1994 must be permitted by July 1, 1995 or restored in accordance with subsection (e) below. The permittee shall apply for a permit on a form prescribed by the Department which shall include the following:</p> <ol style="list-style-type: none"> 1) A map drawn to scale showing the location of the concrete storage structure relative to the lease boundaries potable water wells and local surface drainage located within 1/4 mile of the proposed structure. 2) Concrete storage structure dimensions. 3) Soil types in the area of concrete storage structure construction. 4) Chemical analysis of produced water to be temporarily stored in the concrete storage structure showing TDS and chlorides. 5) A description of the method for disposal of the produced water or liquid oilfield waste temporarily stored in the concrete storage structure. <p>d) General Location and Construction Requirements for New and Existing Concrete Storage Structures</p> <ol style="list-style-type: none"> 1) New concrete storage structures shall not be located: <ol style="list-style-type: none"> A) within 200 feet of an existing inhabited structure, unless the current owner of the structure has provided a written waiver consenting to the construction closer than 200 feet. Any concrete storage structure located closer than 200 feet shall be completely fenced to prevent unauthorized access; B) within 200 feet of a domestic water supply well or 2,500 feet of a municipal water supply well; C) within 200 feet of a stream, body of water, or marshy land, unless the permittee can demonstrate to the Department that construction

standards or topography will prevent discharge from the concrete storage structure;
 D) in an area which is subject to annual flooding by streams, rivers, lakes, or drainage ditches.

- 2) Existing concrete storage structures shall be completely fenced to prevent unauthorized access when located, at the time of Permitting, within 200 feet of an existing inhabited structure.
- 3) Surface water drainage shall be diverted away from all concrete storage structures.
- 4) Contents from any concrete storage structure shall not be discharged onto the surrounding land surface or into a stream or other body of water unless a permit has been obtained from the Illinois Environmental Protection Agency ("IEPA").
- 5) The concrete storage structure permit number and the name of the permittee must be posted at all concrete storage structures in a legible and visible manner.
- 6) All concrete storage structures shall be covered with bird netting or other system designed to keep birds and flying mammals from landing in the concrete storage structure.
- 7) New concrete storage structures shall be constructed utilizing standard engineering practices using formed concrete bottom and sides and be underlain by a drainage system constructed to allow the monitoring and sampling of fluids present under the structure. After installation of the concrete liner and prior to concrete storage structure use, the structure shall be inspected by a Department Well Inspector. The permittee shall correct damages or imperfections before placing liquid oilfield waste or produced water in the concrete storage structure. The fluid drainage from beneath the pit shall be sampled quarterly. The sample shall be analyzed for chlorides by an "independent testing" facility. The results of the analysis shall be maintained at the facility offices for review upon request, by the Department. If the fluid analysis indicates a leak is present, the Department shall be notified within five (5) days and the pit shall be drained and repaired.
- 8) Existing concrete storage structures shall have been constructed utilizing standard engineering practices using formed concrete bottoms and sides. Existing concrete structures shall be exempt from the under structure drainage provision specified in subsection (d)(7) above for new structures. However, existing structures shall be subject to inspection and repair in accordance with subsection (f) of this Section.
- 9) Puncturing or perforating the concrete liner or installing any type of drainage system which penetrates the sides or bottom of any structure is prohibited.

e) Concrete Storage Structure Abandonment and Restoration

- 1) Prior to removal and or burial of the concrete storage structure:
 - A) All of the liquid oilfield waste shall be removed and disposed of in a Class II UIC well.
 - B) Crude oil bottom sediments shall be disposed of in accordance with Section 240.940 (a) and (b) or with Department approval, disposed of in a production well equipped with tubing and packer set in accordance with Section 240.760(b) under observation by an inspector from the District Office in which the well is located. If the Department determines through field observations that the disposal activities are endangering the freshwater, the disposal activities shall cease until the condition is corrected. Disposal activities shall not exceed 45 days, after which time the well must be plugged..
 - C) For new and existing concrete storage structures permitted in accordance with this Subpart and restored after July 1, 1995 the pit residue, not disposed in accordance with subsection (e)(1)(A) or (B) above, shall be removed from the storage structure and disposed at an Illinois Environmental Protection Agency permitted non-hazardous special waste landfill provided that concrete storage structures residue containing NORM may be required to be disposed of at a waste facility permitted by the Illinois Department of Nuclear Safety.
 - D) For existing concrete storage structures not permitted for continued use in accordance with this Subpart by July 1, 1995, and required to be restored, or permitted existing pits restored by July 1, 1995, the pit residue can be buried on site within the concrete structure.
 - 2) If the base of the structure is less than three feet below the ground surface, the structure must be completely dismantled and removed from the site. The surface area shall be leveled and restored in such a manner as to prevent the ponding of water and erosion.
 - 3) If any portion of the structure is below the ground surface, the portion of the structure within three feet of the surrounding surface shall be removed. Any remaining structure must be configured to prevent the accumulation of water within the remaining structure and backfilled to prevent surface ponding and subsidence.
- f) Inspection of Concrete Storage Structure
 All new and existing concrete storage structures shall be subject to inspection by a Department Well Inspector. If requested at time of the inspection, the concrete storage structure shall be emptied in order to examine the integrity The Department may order any remedial work it deems necessary to ensure compliance with Department regulations.

Section 240.860 Pits

- a) "Pit", as used in this Section, is a synthetic lined or unlined earthen surface impoundment, whether a man-made excavation or a diked area which was or currently is, used for temporary storage of liquid oil field waste or produced water prior to disposal.
- b) Construction of pits other than those specified in Subparts E and K of this Part is prohibited.
- c) All pits in existence on May 13, 1994 shall be closed, in accordance with subsection (e) below, by July 1, 1995 as follows, unless covered by subsection (d) below, or exempted for continued use in accordance with Section 240.861 or for an alternative use in accordance with Section 240.862.
- d) Synthetic lined pits, permitted after May 12, 1989 and before May 13, 1994, shall be restored in accordance with subsection (e) 5 years after the permit was issued.
- e) Pits shall be restored as follows:
 - 1) All oilfield brine and produced waters shall be removed and disposed of in a Class II UIC well.
 - 2) Crude oil bottom sediments shall be disposed of in accordance with Section 240.940 (a) and (b) or with Department approval, disposed in a production well equipped with tubing and packer set in accordance with Section 240.760(b) under observation by an inspector from the District Office in which the well is located. If the Department determines through field observations that the disposal activities are endangering the freshwater, the disposal activities shall cease until the condition is corrected. Disposal activities shall not exceed 45 days, after which time the well must be plugged.
 - 3) For pits required to be closed by July 1, 1995 and not exempted in accordance with Section 240.861 the pit residue, not disposed in accordance with subsection (e)(1) or (e)(2), and the pit liner, if any, shall either be:
 - A) removed from the site and disposed of at an Illinois Environmental Protection Agency permitted non-hazardous special waste landfill,

provided that pit residue or liner containing NORM with radioactivity levels exceeding background may be required to be disposed of at a waste facility permitted by the Illinois Department of Nuclear Safety; or

B) consolidated from the sides to the bottom of the pit and covered in place with a clay or synthetic liner sufficient to impede the infiltration of surface water and placed at least 5 feet below the ground surface. The pit shall be backfilled and the pit residue covered with 5' of soil having a radioactivity level at or below background level with the upper most 18" consisting of clean soil not contaminated by oilfield brine or crude oil. The backfilled area shall be graded to promote runoff with no depressions that would accumulate or pond water on the surface. The stability of the backfilled pit shall be compatible with the adjacent land use. The surface area over the backfilled pit area shall be stabilized to prevent erosion.

4) The Department shall prepare an inventory identifying, by county, all closed and unclosed liquid oilfield waste or produced water storage pits. The Department shall file such notice in the county clerk's office in the county in which such pits are located. The notice shall specify the location of the pit, generally identify the nature of the materials buried and, if known, specify the radioactivity level of the material buried. If the radioactivity is not known, the notice shall specify that the buried oil and gas waste may contain Naturally Occurring Radioactive Material (NORM).

Section 240.861 Existing Pit Exemption For Continued Production Use

a) Any pit in existence on May 13, 1994, does not have to be closed in accordance with Section 240.860(c) of this Part if presently constructed or an application to reconstruct was received by July 1, 1995.

b) Pits not approved for reconstruction shall be restored within 6 months.

c) Pits exempted under this Part shall be presently constructed or reconstructed as follows:

1) The pit must be lined with a synthetic flexible liner that is compatible with the produced fluid and has a coefficient of permeability of no greater than 1×10^{-7} cm/sec and shall be at least 30 mils in thickness. Adjoining sections of liners must be sealed together in accordance with the manufacturer's specifications; and

2) The pit must be underlined by a gravel sub-base, at least 4" in thickness, in which slotted or perforated PVC pipe has been placed in order to provide for under pit drainage. This drainage system must be constructed to allow monitoring and sampling of fluid drainage from underneath the pit.

d) Applications for reconstruction shall be approved by the Department prior to reconstruction of the pit. Applications shall be on a form prescribed by the Department and shall include the following:

1) A map drawn to scale showing the location of the pit relative to the lease boundaries, potable water wells and surface drainage located with 1/4 mile of the existing pit.

2) An engineering diagram of the construction specifications of the pit.

3) Soil types in the area of the pit.

4) Chemical analysis of produced water to be temporarily stored in the pit, showing TDS and chlorides.

5) A description of the method for disposal of the produced water or liquid oilfield waste temporarily stored in the pit.

e) All reconstruction activities shall be under the supervision of a Department Well Inspector.

f) Following satisfactory completion of pit reconstruction activities, the Department shall issue a permit to operate.

g) All exempted pits shall be in compliance with the following:

1) Surface water drainage shall be diverted away from the pit.

2) Pit contents shall not be discharged onto the surrounding land surface or into a stream or other body of water unless a permit has been obtained from the Illinois Environmental Protection Agency (IEPA).

3) The pit permit number and the name of the permittee must be posted at the pit location in a legible and visible manner.

4) All pits shall be covered with bird netting or other systems designed to keep birds and flying mammals from landing in the pit.

h) All exempted pits covered by this Section shall sample, quarterly, the fluid drainage from beneath the pit. The sample shall be analyzed for chlorides by an "independent testing" facility. The results of the analysis shall be maintained at the facility offices, for review upon request, by the Department.

i) If the fluid analysis indicates a leak is present, the Department shall be notified within 5 days and the contents of the pit shall be emptied and properly disposed of and the pit liner repaired.

j) All exempted pits covered by this Section shall be subject to inspection by a Department well inspector. If requested at the time of the inspection, the pit shall be emptied in order to examine the integrity of the structure. The Department may order any remedial work it deems necessary to ensure compliance with Department regulations.

k) Abandonment and Restoration Requirements for Exempted Pits

1) Prior to liner removal and burial of the pit:

A) All oilfield brine and produced waters shall be removed and disposed of in a Class II UIC well.

B) Crude oil bottom sediments shall be disposed of in accordance with Section 240.940(a) and (b) or with Department approval, disposed of in a production well equipped with tubing and packer set in accordance with Section 240.760(b) under observation by an inspector from the District Office in which the well is located. If the Department determines through field observations that the disposal activities are endangering the freshwater, the disposal activities shall cease until the condition is corrected. Disposal activities shall not exceed 45 days, after which time the well must be plugged.

C) Pit residue, not disposed of in accordance with (k)(1)(A) or (B) above, shall be removed from the site and disposed of at an IEPA permitted non-hazardous special waste landfill provided that pit residue containing NORM with radioactivity levels exceeding background may be required to be disposed of at a waste facility permitted by the Illinois Department of Nuclear Safety.

2) The liner must be completely removed from the site and disposed of at a nonhazardous special waste facility permitted by the IEPA. The surface area shall be leveled and pit filled in such manner as to prevent the ponding of water and erosion and allow the site to be returned to original use with no subsidence or leakage of fluids, and where applicable, with sufficient compaction to support farm machinery.

Section 240.862 Existing Pit Exemption For Alternative Use

a) Any pit in existence on May 13, 1994 may not have to be closed in accordance with Section 240.860(c) of this Part if:

		<p>1) the pit is no longer used for temporary storage of produced water or other liquid oilfield waste; 2) the water quality in the pit is less than 5000 TDS with no visible sheen of oil; and 3) a written, notarized authorization from the current surface owner has been received by the Department requesting the pit not be closed and demonstrating an acceptable alternative use for the pit.</p> <p>b) In determining not to require the pit be closed, the Department shall:</p> <p>1) review the current location of the pit relative to any ongoing production operations in the area; and 2) review the proposed alternative use relative to public health and safety considerations and potential use for agricultural, recreational or wildlife habitat purposes.</p> <p>c) If the Department determines, based on a review of the information submitted by the permittee and surface owner the pit is not exempted, the pit shall be closed, within 6 months, by the permittee, in accordance with Section 240.860(d).</p>
<p>Exempt Waste Handling</p>	<p>Lease Road Oiling Permits, Form OG-2</p> <p>Application for Liquid Oilfield Waste Transportation System Permit, Form OG-16</p> <p>Application for Liquid Oilfield Waste Tank Permit, Form OG-16A</p>	<p>Section 240.520 Drilling Fluid Handling and Storage</p> <p>a) Cable Tool or Air Rotary Drilling When drilling with cable tools or air rotary equipment the permittee shall provide at least one (1) sediment pit or above ground container into which drill cuttings and drilling fluids shall be deposited.</p> <p>b) Rotary Drilling with Mud When drilling with rotary drilling equipment using drilling fluids, the permittee shall provide at least one (1) sediment pit or above ground, portable container into which drill cuttings shall be deposited, and one (1) drilling fluid circulation pit or leak free, above ground container. Other pits, such as reserve pit used for storage of drilling fluid waste, may be constructed as needed by the permittee.</p> <p>c) Drilling Pits</p> <p>1) Pits used for drill cuttings (sediment pits) and drilling fluids (circulation pits) or drilling fluid wastes (reserve pits) shall be constructed with sufficient capacity to contain all drilling fluids within the pits, and maintained in a manner that reasonably prevents against overflow during drilling operations and prior to commencing pit restoration in accordance with Section 240.540 of this Part. Discharge of drilling fluids from the pits into any surface water or water drainage way is prohibited.</p> <p>2) Sediment pits and drilling fluid circulation pits and reserve pits shall be used only for the temporary storage of drill cuttings and drilling fluids, and shall not be used for the disposal of general oilfield wastes.</p> <p>Section 240.525 Saltwater or Oil Based Drilling Fluid Handling and Storage</p> <p>a) When initiating drilling operations using saltwater or oil drilling fluids, the permittee shall provide at least one (1) lined sediment pit or above ground, portable container into which drill cuttings shall be deposited, and one (1) lined drilling fluid circulation pit or leak free, above ground container.</p> <p>b) Pits used for drill cuttings (sediment pits) and drilling fluids (circulation pits) or reserve pits (drilling fluid waste storage) shall be lined with at least a 20 mil thickness liner. If drilling operations begin with fresh water based mud and a mud cake is established in the drilling and circulation pits prior to the use of saltwater or oil based mud, liners are not required unless those pits will be used for drilling fluid waste disposal. Reserve pits into which saltwater or oil based drilling fluid wastes are deposited or disposed shall be lined. Pits shall be constructed with sufficient capacity to contain all drilling fluids within the pits, and maintained in a manner that reasonably prevents against overflow during drilling operations and prior to commencing pit restoration in accordance with Section 240.540 of this Part. Discharge of drilling fluids from the pits into any surface water or water drainage way is prohibited.</p> <p>c) Sediment pits, drilling fluid circulation pits and reserve pits shall be used only for the temporary storage and disposal of drill cuttings and drilling fluids, and shall not be used for the disposal of general oilfield wastes.</p> <p>Section 240.530 Completion Fluid and Completion Fluid Waste Handling and Storage</p> <p>a) Completion Fluid Handling and Storage Prior to Use If completion fluids are temporarily stored at the well site prior to use in completion activities, the fluids shall be stored in a lined completion pit or leak free, above ground container.</p> <p>b) Completion Fluid Waste Handling and Storage Completion fluid wastes generated from the well during completion activities shall be collected at the well site in a completion pit, or leak free, above ground container. A pit used for this purpose need not be lined.</p> <p>c) Completion and Workover Pits</p> <p>1) Pits used for completion fluids and completion fluid wastes shall be constructed with sufficient capacity to contain the fluids within the pits, and maintained in a manner that reasonably prevents against overflow during completion or workover activities and prior to commencing pit restoration in accordance with Section 240.540 of this Part. Discharge of completion fluids and completion fluid wastes from the pits into any surface water or water drainage way is prohibited.</p> <p>2) The sediment pit or the drilling fluid circulation pit used during drilling operations may be used for the collection of completion fluid wastes during completion activities. If either pit is used as a completion pit, drill cuttings and drilling fluids shall first be removed and a dike constructed to prevent completion fluid wastes from entering the other pit.</p> <p>3) Completion or workover pits used to store completion fluids prior to use in the well shall be lined with a liner at least 20 mils in thickness.</p> <p>4) Completion or workover pits shall be used only for the temporary storage of completion fluids and completion fluid wastes in accordance with the requirements of this subsection, and shall not be used for the disposal of general oilfield wastes.</p> <p>Section 240.540 Drilling and Completion Pit Restoration</p> <p>a) Sediment, drilling fluid circulation and reserve pits, except sediment pits used as completion pits, shall be filled and leveled within 6 months after drilling ceases. Drilling fluid wastes may be disposed of by on-site burial or surface application in accordance with subsection (b) of this Section at the site of drilling.</p>

Saltwater or Oil Drilling Fluid wastes shall be removed from the site and disposed of in an Illinois Environmental Protection Agency permitted special waste landfill, injected in a Class II well, disposed of in a well during the plugging process or buried in one of the lined pits and the liner folded over and additional liner material added to completely cover the drilling waste buried at least 5 feet below the ground surface.

b) If surface application is used for disposal of drilling fluid wastes (prohibited for Saltwater or Oil Based Drilling Fluids), the wastes shall be landspread, incorporated and stabilized to limit run off of storm water containing drilling fluid waste. Discharge of drilling fluid waste into surface waters or water drainage ways is prohibited.

c) Drilling pits used as completion pits in accordance with Section 240.530(c)(2) of this Subpart shall be filled and leveled within 6 months after completion activities cease. Newly constructed completion or workover pits shall be filled and leveled within 90 days after completion or workover activities cease. All completion or workover fluid wastes shall be removed from the pit and disposed of in a Class II Injection well (or in above ground tanks or containers pending disposal) prior to restoration. Any remaining residue not removed can be disposed of through on-site burial. Only residue from that particular well on which completion or workover activities were performed can be disposed of by on-site burial.

Section 240.550 Disposal of General Oilfield Wastes and Other Wastes

All general oilfield wastes generated during drilling, completion and workover activities shall be temporarily stored in on-site containers, and shall be removed from the site prior to or at the conclusion of the given activity and disposed of in accordance with the federal Resource Conservation and Recovery Act of 1976.

Section 240.940 Crude Oil Bottom Sediments

Crude oil bottom sediments removed from tanks, concrete storage structures and pits on a leaseor unit may be:

a) transported by a permitted liquid oilfield waste hauler to a Illinois Environmental Protection Agency (IEPA) licensed special waste landfill, to an IEPA licensed off-site treatment facility, to a Class II injection well for disposal or a crude oil bottom sediment recycling facility;

b) injected in a well in accordance with Section 240.850(e)(1)(B);

c) bioremediated on-site through land spreading in accordance with Section 240.891(a)(2); or

d) used for road oiling on the lease or unit where the sediments were generated in accordance with Section 240.945.

Section 240.945 Lease Road Oiling

a) Lease road oiling shall not be allowed without receiving a permit from the Department.

b) The permittee shall apply for and receive a lease road oiling permit for each lease or unit from the Department on a form prescribed by the Department prior to oiling any lease road.

c) Application for a lease road oiling permit shall include:

1) the location of the lease or unit;

2) the permittee's name and address;

3) the method to be used for application of the bottom sediments;

4) a map showing the lease roads to be oiled and the location of any surface drainage features on or immediately adjacent to the lease or unit; and

5) written consent from the current surface owner or owners allowing the crude oil bottom sediment application.

d) Upon approval, crude oil bottom sediment shall be applied to lease roads in such a fashion as to avoid run-off during application onto immediately adjacent land areas. Immediately following completion of the application, all liquids shall be incorporated or otherwise absorbed into the soil with no visible freestanding oil.

e) No lease road shall be oiled more than twice yearly.

f) Lease road oiling shall not be conducted when the ground is frozen or during precipitation events and is prohibited in areas subject to frequent flooding.

g) Crude oil bottom sediments used for lease road oiling shall not have a produced water content of greater than 10% free water by volume.

h) Lease road oiling permits are not transferable and are required for each lease or unit. The permit shall be valid for as long as the lease or unit is active under the current permittee or the surface owner named on the permit does not change.

i) Lease road oiling material applied without a permit shall be removed from the road and properly disposed of.

j) Lease road oiling permits are subject to revocation in accordance with Section 240.251.

Section 240.1160 Plugging Fluid Handling and Storage

a) When plugging a well, the permittee shall provide at least one (1) pit or leak free, above ground, portable container into which plugging fluid wastes shall be deposited.

b) Plugging pits shall be constructed with sufficient capacity to contain all plugging fluid wastes within the pits, and maintained in a manner that reasonably prevents against overflow during plugging operations. Plugging pits shall be used only for the temporary storage of plugging fluid wastes, and shall not be used for the disposal of general oilfield wastes.

c) All general oilfield wastes generated during plugging activities shall be temporarily stored in on-site containers, and shall be removed from the site at the conclusion of plugging activity. General oilfield wastes shall not be disposed of through on-site burial or in plugging pits.

Section 240.1170 Plugging Fluid Waste Disposal and Well Site Restoration

Within six (6) months after a well is plugged:

a) The free liquid fraction of the plugging fluid waste, consisting of produced water and crude oil, shall be removed from the pit and disposed of in a Class II Injection well (or in above ground tanks or containers pending disposal) prior to restoration. The remaining plugging fluid wastes shall be disposed of by on-site

		<p>burial. b) All plugging pits shall be filled and leveled in a manner that allows the site to be returned to original use with no subsidence or leakage of fluids, and where applicable, with sufficient compaction to support farm machinery.</p>
<p>Spills</p>		<p>Section 240.630 Operating Requirements</p> <p>c) All spills of produced water or oil occurring at the well-site due to a leaking wellhead shall be cleaned up in accordance with Subpart I.</p> <p>Section 240.880 Initial Spill Notification</p> <p>a) Applicability This Section covers spills of crude oil and produced water from tanks, pits, concrete storage structures, containment dikes and flowlines located within the boundaries of an oil and gas lease, unit, or underground gas storage field. Spills from flowlines beyond the lease, unit, or gas storage field boundaries are included if part of a flowline gathering system transporting produced fluids to a central collection point prior to connection or transfer to a crude oil or gas purchase pipeline. Spills from interstate pipeline, or refined product pipeline are not included and are under the jurisdiction of the Illinois Environmental Protection Agency.</p> <p>b) Spills of crude oil in excess of 1 barrel, or produced water in excess of 5 barrels, onto the surface of the land (if not contained by containment dikes around tanks) shall be reported immediately to the Department's District Office responsible for the county where the spill occurred. The initial report shall contain at a minimum:</p> <ol style="list-style-type: none"> 1) the name of the permittee responsible for the spill; 2) the location of the spill; 3) the amount of crude oil and saltwater spilled; 4) the areal extent of the spill; 5) the cause of the spill; 6) proposed emergency remediation action. <p>c) All crude oil spills, regardless of amount, which enter streams, rivers, ponds, lakes, wetlands or other bodies of water, shall be reported immediately to the Illinois Emergency Management Agency (IEMA) and to the Department's District Office responsible for the county where the spill occurred.</p> <p>d) All spills which are not required to be reported in accordance with subsection (a) or (b) above, are subject to remediation requirements of Section 240.891 and Section 240.895 of this Part.</p> <p>Section 240.890 Crude Oil Spill Remediation Requirements</p> <p>a) All crude oil spills that occur after November 8, 1993, regardless of amount, from wells, flowlines, tanks, concrete storage structures, pits or containment dikes are subject to this Section.</p> <p>b) The permittee is required to initiate the following emergency response procedures for all crude oil spills as soon as practical after a spill has occurred:</p> <ol style="list-style-type: none"> 1) Contain spilled crude oil using earthen dikes, booms and other containment measures to minimize the amount of area affected by the spill. 2) If a spill enters surface waters, the spill shall be contained with booms and/or underflow dams and removed as expeditiously as possible. If it is determined that burning the oil-affected area will prevent further contamination of the surface waters, an emergency burn may be conducted in accordance with Section 240.891(c) of this Part. 3) Cause of spill shall be repaired. 4) Impounded free oil shall be picked up and put in lease storage tanks or removed from the site. <p>c) Remaining oil on the land surface shall be removed using absorbent material. The absorbent material shall be disposed of in accordance with Section 240.891(b) of this Part.</p> <p>d) Contaminated soil shall be remediated in accordance with Section 240.891(a)(1) through (4) or, if required to be removed from the site in accordance with subsection (f) of this Section, shall be disposed of in accordance with Section 240.891(a)(5).</p> <p>e) If a spill enters a public road ditch, visible oil-contaminated soil shall be removed from the roadside ditch and:</p> <ol style="list-style-type: none"> 1) Removed from the site in accordance with Section 240.891(a)(5); or 2) Remediated in accordance with Section 240.891(a)(1) through (4). <p>f) The Department may require additional remediation action to be taken by the permittee, which may include flushing of the area (e.g., stream banks, etc.) with freshwater, the addition of organic material (e.g., peat moss, straw), chemical treatment, additional disking of the soil or soil and absorbent material removal if the soil and/or absorbent material within the spill area cannot meet the TPH (total petroleum hydrocarbon) standard specified in Section 240.891(a)(1)(C).</p> <p>g) The permittee shall be required to submit on request, or within 90 days after the spill occurred, on a form prescribed by the Department, the following information:</p> <ol style="list-style-type: none"> 1) the areal extent of the spill; 2) the proximity of surface waters, freshwaters or surface drainage ways; 3) the type of soil and current land use; 4) the TPH content in the spill area; 5) explanation of spill cause; and 6) planned efforts to prevent and minimize the effects of future spills. <p>h) Additional reports are required each 90 days until the spill remediation is completed and approved by the Department.</p> <p>Section 240.891 Crude Oil Spill Waste Disposal and Remediation</p> <p>a) Contaminated Soil</p>

		<p>1) The soil affected by a spill may be remediated in place and shall at a minimum be:</p> <ul style="list-style-type: none"> A) fertilized with 5 pounds of 12-12-12 fertilizer or an amount of other fertilizer sufficient to treat the soil with 0.25 lbs of nitrogen per 100 square feet of affected area; B) limed with at least 50 lbs of agricultural grade lime per 100 square feet of affected area in order to maintain a pH of between 6-8; if the pH of the soil/oil mixture is less than 6, additional lime shall be incorporated to increase pH above 6; C) tilled to a depth of at least 4 inches but no greater than 12 inches to create a soil and crude oil mixture that contains less than 5% total petroleum hydrocarbon (TPH) following the completion of the initial tilling; D) watered to maintain soil moisture sufficient to promote plant growth (if extremely dry soil conditions exist); and E) stabilized to minimize erosion and run-off of stormwater. <p>2) Contaminated soils not remediated in place may, with approval from the Department and the landowner, be land spread and remediated in accordance with subsection (a)(1), on land unaffected by the spill, but located on the same lease where the spill occurred.</p> <p>3) If the soil in the affected area is frozen or previously saturated due to rain or snow melt, prohibiting compliance with subsection (a)(1), the permittee shall stabilize the area to prevent any surface run-off from leaving the affected area until conditions permit compliance with subsection (a)(1).</p> <p>4) The soil affected by the spill must contain less than 1% TPH within 12 months after the date of the spill.</p> <p>5) Contaminated soils removed from the site for off-site disposal shall be disposed of at an Environmental Protection Agency permitted special waste landfill, waste treatment or disposal facility.</p> <p>b) Contaminated Absorbent Materials</p> <ul style="list-style-type: none"> 1) Off-site disposal All non-organic/non-biodegradable absorbent materials and all organic/biodegradable materials in excess of 500 cubic feet shall be disposed of at an Environmental Protection Agency permitted non-hazardous special waste landfill, waste treatment or disposal facility. Organic/biodegradable materials amounting to less than 500 cubic feet may be disposed of at a permitted non-hazardous special waste landfill or disposed of in accordance with subsection (b)(2)(B). 2) On-site disposal <ul style="list-style-type: none"> A) On-site disposal of non-organic/non-biodegradable absorbent materials is prohibited. These materials must be removed in accordance with subsection (a)(5). B) On-site disposal of less than 500 cubic feet of organic/biodegradable absorbent materials through landspreading over the area affected by the spill is permitted if it involves only materials generated at the site and is remediated in accordance with subsections (a)(1) through (4). C) Landspreading of absorbent materials is permitted subject to subsection (a)(2). c) Emergency Burning <ul style="list-style-type: none"> 1) Open burning of spilled crude oil is permitted when imminent weather conditions threaten to further contaminate surface waters or immediate collection for disposal is impractical. 2) Burning shall only be permitted when conditions will not cause the burn to affect nearby residences or the visibility on nearby roads. 3) Notice must be given to the Illinois Environmental Protection Agency prior to the emergency burn, and appropriately designated Department personnel must be on the scene throughout the burn. 4) The local fire department or fire protection district shall be notified. 5) A report must be filed with the Department, on a form prescribed by the Department within 10 days after the burn, indicating: <ul style="list-style-type: none"> A) the place and time of the burn; B) the quantity burned; C) meteorological conditions; and D) the reason the emergency burn was necessary. <p>Section 240.895 Produced Water Spill Remediation Requirements</p> <ul style="list-style-type: none"> a) All spills of produced water that occur after November 8, 1993, from wells, flowlines, pits, concrete storage structures, tanks or containment dikes, shall as soon as practicable be contained using earthen dikes and other containment measures to minimize the amount of area affected by the spill. b) All impounded produced water shall be picked up and removed from the site for disposal into a Class II UIC well. c) The affected area shall be limed with at least 50 lbs. of agricultural grade lime per 100 square feet of affected area and tilled to a depth of at least 4 inches. d) In determining whether the Department will require additional remediation action to be taken by the permittee, which may include flushing of the area with freshwater, the addition of organic material (e.g., peat moss, straw), additional chemical treatment, additional disking the soil, or soil removal, the permittee shall be required to submit within 90 days after the spill date, on a form prescribed by the Department, the following information: <ul style="list-style-type: none"> 1) the quantity and areal extent of the spill; 2) the nature of the soil; 3) the flow capacity of affected surface waters; 4) the public safety; 5) the proximity of freshwaters, surface waters and surface drainage features; 6) explanation of spill cause; and 7) planned efforts to prevent and minimize the effects of future spills. e) Additional reports are required each 90 days until the spill remediation is completed and approved by the Department.
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Indiana		
Topic	Associated Forms	Regulations: http://www.in.gov/legislative/iac/T03120/A00160.PDF
Permitting	Application for Well Permit, Form A1	<p>Excerpted Text by Topic</p> <p>Indiana Administrative Code 312 IAC 16-3-1 Permit required</p> <p>Sec. 1. (a) A person may not drill, deepen, operate, or convert a well for oil and gas purposes without a permit issued by the division under IC 14-37 and this rule. (b) No person may commence drilling, construction, operation, or conversion of a Class II well except in conformance with this rule. (c) The original or a copy of the permit must be posted by the operator at the well site before drilling, deepening, or operating a well.</p> <p>312 IAC 16-3-2 Permit applications</p> <p>Sec. 2. (a) This section establishes general application requirements for a permit to: (1) drill; (2) deepen; (3) operate; or (4) convert;a well for oil and gas purposes or conduct a geophysical survey. (b) An application for a permit to: (1) drill; (2) deepen; (3) operate; or (4) convert;a well for oil and gas purposes or conduct a geophysical survey shall be made on a division form.</p> <p>312 IAC 16-3-5 Permit duration</p> <p>Sec. 5. (a) A permit for a well for oil and gas expires one (1) year from the date of issuance unless the drilling of the well has commenced.</p> <p>312 IAC 16-3-9 Permit revocation</p> <p>Sec. 9. (a) The department may revoke a permit issued under IC 14-37 upon a finding that: (1) the permit was issued through fraud or misrepresentation; (2) the owner or operator has violated IC 14-37 or this article; (3) the information or conditions upon which a permit was issued have substantially changed since issuance; (4) the owner or operator of a well for oil and gas purposes is polluting the waters or land in Indiana; (5) the operation of a Class II well may result in a movement of fluids into an underground source of drinking water; or (6) the owner or operator has been issued a notice of violation under IC 14-37-12-2 and 312 IAC 16-5-21, and has failed: (A) to abate the violation within the prescribed period; (B) to secure in writing from the division an extension of time in which to abate the violation before the expiration of the period established for abatement; or (C) to request a proceeding under IC 4-21.5-3-6 within thirty (30) days after service of the notification or within the period provided by the division for abatement, whichever is longer. (b) In addition to the grounds for permit revocation set forth under subsection (a), a permit for a Class II well may be revoked, modified, or reissued under IC 4-21.5-3-5 where there is: (1) a substantial change of conditions in the operation of the Class II well; (2) a substantial change in the information upon which the permit was issued; or (3) reasonable cause to believe that the permitted operation may result in the movement of fluids into an underground source of drinking water other than an exempted aquifer.</p>
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Well Completion or Recompletion Report, Form R3	<p>312 IAC 16-5-9 Well construction</p> <p>Sec. 9. (a) This subsection governs the following placement of casing, tubing, and drill pipe in a well for oil and gas purposes: (1) Casing, tubing, and drill pipe shall be run and set in conformance with the standards set forth by the American Petroleum Institute in "API Specifications" 5A, 5AC, and 5AX (May 31, 1985, editions). (2) Casing centralizers may be required by the division director to effectuate the minimum clearances needed to ensure the proper cementing of</p>

		<p>casing.</p> <p>(3) The slurry used in a casing string must contain a mixture of cement and water and may contain API-approved additives. The use of aggregate or sand in cement mixture is prohibited. The slurry must be placed using the pump and plug or displacement method and with a volume of cement sufficient to cause its return to the surface or to the bottom of a cemented intermediate or surface string of casing.</p> <p>(b) In addition to the requirements set forth in subsection (a), surface casing must be set as follows:</p> <p>(1) Surface casing shall be run below the lowest underground source of drinking water. Surface casing shall be set in or through an impervious formation and shall be cemented with cement sufficient to circulate to the top of the hole. The owner or operator shall use more than one (1) string of casing where necessary to protect any underground source of drinking water.</p> <p>(2) Instead of the surface casing requirements set forth in subdivision (1), an owner or operator may cement an intermediate or long string of casing with cement sufficient to circulate to the top of the hole.</p> <p>(3) In addition to the requirements set forth in subsection (a), if intermediate casing is used, the intermediate casing must be set in an impervious stratum.</p> <p>(c) In addition to the requirements set forth in subsection (a), production casing must be set as follows:</p> <p>(1) Except as provided under section 20 of this rule, a well that an owner or operator does not abandon after completion of the drilling operations must be immediately equipped with production casing set at the bottom of the hole or at the top of the last stratum drilled.</p> <p>(2) If a well is plugged to a point higher than the last stratum drilled, production casing shall be set at the plug to prevent the migration of oil, gas, or water from one (1) stratum to another.</p> <p>(d) The division director may authorize an alternate well construction method if the owner or operator demonstrates the alternate well construction method:</p> <p>(1) will not cause the pollution of, endanger, or threaten any underground source of drinking water;</p> <p>(2) will not damage a source of oil or gas; and</p> <p>(3) is designed to confine injected fluids to the approved interval or intervals.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Application for Temporary Abandonment or Plugging Deferral, Form A3</p>	<p>312 IAC 16-5-20 Temporary abandonment of wells</p> <p>Sec. 20. (a) An owner or operator may defer plugging and abandonment under IC 14-37-8-1 for a well that has been drilled, completed, and cased for production if either of the following is satisfied:</p> <p>(1) Abandonment is deferred under subsection (b).</p> <p>(2) The requirements of subsection (c) are completed for temporary abandonment status.</p> <p>(b) An owner or operator may defer plugging and abandonment of a well for one (1) year, or for any lesser time prescribed by the division, if both of the following are satisfied:</p> <p>(1) The owner or operator notifies the division, in writing, on a form provided by the division, that plugging and abandonment are being deferred. The notification must be filed with the division within sixty (60) days of the following:</p> <p>(A) Well completion for a well not placed in operation.</p> <p>(B) The termination of operations for a well placed in operation.</p> <p>(2) The owner or operator complies with each of the following technical requirements:</p> <p>(A) The well is provided with an intact, leak-free wellhead or is capped with a valve and configured to monitor casing or casing-tubing annulus pressure.</p> <p>(B) The well site is kept free of unnecessary equipment, vegetation, and debris.</p> <p>(C) The excavations associated with drilling are filled and leveled.</p> <p>(D) Signs are posted and maintained under section 10 of this rule.</p> <p>(E) A properly executed completion or recompletion report is submitted to the division under section 17 of this rule.</p> <p>(F) The well is cased and cemented under this rule.</p> <p>(G) Bond is maintained on the well as required under this rule.</p> <p>(H) A demonstration is made under subsection (d) that the well does not threaten an underground source of drinking water.</p> <p>(c) An owner or operator of a well may seek temporary abandonment status for a well that conforms to the requirements of IC 14-37 and this rule. The owner or operator seeking temporary abandonment status must file a completed application on a division form within sixty (60) days of the following:</p> <p>(1) For a well not placed in operation, the date on which drilling of the well is completed.</p> <p>(2) For a well placed in operation, the date on which operation of the well is terminated.</p> <p>(3) If the department has approved a deferral of plugging and abandonment under subsection (b), the date of expiration of the deferral.</p> <p>(d) The following governs the demonstration required under subsection (b)(2)(H) that a well does not threaten an underground source of drinking water:</p> <p>(1) The owner or operator must notify an inspector at least forty-eight (48) hours before a demonstration is to be performed.</p> <p>(2) The owner or operator must use one (1) of the following methods in performing the demonstration:</p> <p>(A) Monitor the fluid level using acoustical or wire line measuring methods on an annual basis and report the results of monitoring on a form prescribed by the division. If the fluid level is closer than one hundred (100) feet to the base of the lowest underground source of drinking water, the owner or operator shall notify an inspector within twenty-four (24) hours and shall do one (1) of the following:</p> <p>(i) Plug and abandon the well under section 19 of this rule.</p> <p>(ii) Set a mechanical bridge, cement, or calseal plug within two hundred (200) feet above the perforated or open hole interval in the cemented portion of the casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Remove any fluid to a level at least one hundred (100) feet below the base of the lowest underground source of drinking water.</p> <p>(iii) Set a mechanical bridge, cement, or calseal plug within two hundred (200) feet above the perforated or open hole interval in the cemented portion of the casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Pressure test the casing at least once every five (5) years during any period of temporary abandonment by filling the casing above the mechanical bridge, cement, or calseal plug with water and placing a pressure of at least three hundred (300) pounds per square inch gauge (which may vary no more than three percent (3%)) for a period of thirty (30) minutes. During the thirty (30) minute period of the test, additional pressure may not be applied to the casing.</p> <p>(iv) Install tubing and packer within two hundred (200) feet above the perforated or open hole interval in cemented portion of the</p>

		<p>casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Pressure test the casing tubing annulus at least once every five (5) years during any period of temporary abandonment by filling the annulus above the packer with water and placing a pressure of at least three hundred (300) pounds per square inch gauge (which may vary no more than three percent (3%)) for a period of thirty (30) minutes. During the thirty (30) minute period of the test, additional pressure may not be applied to the annulus.</p> <p>(v) If a bridge, cement, or calseal plug was lawfully set before the effective date of this section, which is one hundred (100) feet below the base of the lowest underground source of drinking water, but no less than one hundred (100) feet below the calculated top of the cement, fluid level monitoring as described in item (iii) or a pressure test as described in item (iv) may be used to demonstrate the well does not threaten an underground source of drinking water.</p> <p>(B) Perform a mechanical integrity test as described in clause (A)(ii), (A)(iii), or (A)(iv).</p> <p>(C) For a gas well, with a minimum wellhead pressure of one hundred (100) pounds per square inch, each of the following standards apply:</p> <p>(i) At least ten percent (10%) of the initial shut-in pressure shall be bled off, and the well shall be shut back in under the supervision of an inspector.</p> <p>(ii) Once the well returns to the maximum shut-in pressure, the pressure must be maintained at a constant level for thirty (30) minutes in the pressure of an inspector.</p> <p>(iii) A pressure measuring device displaying a readout of the shut-in pressure shall be attached to the wellhead and shall be accessible at all times for inspection by the inspector.</p> <p>(e) Temporary abandonment status may be granted for a period not to exceed five (5) consecutive years.</p> <p>(f) Upon the expiration of temporary abandonment status or its renewal, the owner or operator must do one (1) of the following:</p> <p>(1) Operate the well for its permitted purpose.</p> <p>(2) Plug and abandon the well under section 19 of this rule.</p> <p>(3) Submit a request for temporary abandonment renewal, on a form prescribed by the division, which demonstrates that the engineering, geologic, or economic reasons for retaining a well on temporary abandonment status outweigh the potential benefit from operating, plugging, or abandoning the well. Demonstrate the well does not threaten an underground source of drinking water by using a method, as selected by the division, under subsection (d)(2)(A)(ii), (d)(2)(A)(iii), or (d)(2)(A)(iv).</p> <p>(g) If an owner or operator fails to file an annual report, as required under subsection (d)(2)(A), the division may require the owner or operator to do any of the following:</p> <p>(1) Demonstrate the well has mechanical integrity using a method selected by the division under subsection (d)(2)(A)(ii), (d)(2)(A)(iii), or (d)(2)(A)(iv).</p> <p>(2) Operate the well for the permitted purpose.</p> <p>(3) Plug and abandon the well under section 19 of this rule.</p> <p>(h) An owner or operator must notify the division in writing within thirty (30) days of any change in the operational status of a well that has been granted temporary abandonment status under this section.</p> <p>(i) Operation of a well that is subject to this section removes the well from temporary abandonment status.</p>
<p>Well Plugging</p>	<p>Application for alternate Plugging Method or Material, Form A9</p>	<p>312 IAC 16-5-19 Plugging and abandoning wells</p> <p>Sec. 19. (a) Wells for oil and gas purposes shall be plugged in accordance with IC 14-37-8.</p> <p>(b) With respect to a well for oil and gas purposes, an owner or operator must place bottom plugs using one (1) of the following procedures:</p> <p>(1) A cement plug from total depth to three (3) feet below ground elevation.</p> <p>(2) A cement plug from the shallower of total depth of fifty (50) feet below to not less than one hundred (100) feet above each completed zone unless the placement of the plug would require the removal of a permanent plugback and one (1) of the following:</p> <p>(A) A mechanical plug set inside cemented casing within two hundred (200) feet above the uppermost completed zone with a ten (10) gallon cement plug placed on top of the mechanical plug.</p> <p>(B) A cement plug from the top of to not less than two hundred fifty (250) feet above the uppermost completed zone.</p> <p>(3) A mechanical plug between each completed zone unless the placement of the plug would require the removal of a permanent plugback and one (1) of the following:</p> <p>(A) A mechanical plug set inside cemented casing within two hundred (200) feet above the uppermost completed zone with a ten (10) gallon cement plug placed on top of the mechanical plug.</p> <p>(B) A cement plug from the top of to not less than two hundred fifty (250) feet above the uppermost completed zone.</p> <p>(4) A dry hole that does not enter a commercially mineable coal resource may be filled with mud-laden fluid, well cuttings, pea gravel, or crushed rock from the bottom of the hole to fifty (50) feet below the deepest underground source of drinking water. The owner or operator shall place a cement plug from fifty (50) feet below the deepest underground source of drinking water to three (3) feet below the surface.</p> <p>(5) If a well is flowing at the surface, however, the operator must place plugs under one (1) of the following:</p> <p>(A) Subdivision (1).</p> <p>(B) Subdivision (2) and (2)(A).</p> <p>(C) Subdivision (3) and (3)(A).</p> <p>(c) An owner or operator must place any top plug as a cement plug from fifty (50) feet below:</p> <p>(1) the deeper of the lowest commercially mineable coal seam or underground source of drinking water to three (3) feet below ground elevation; or</p> <p>(2) to not less than one hundred (100) feet above each commercially mineable coal seam, and a cement plug from fifty (50) feet below the deepest underground source of drinking water to three (3) feet below ground elevation. Notwithstanding subdivisions (1) and (2), fallback of a top plug may be topped off by surface placement of cement slurry.</p> <p>(d) Uncemented casing from fifty (50) feet below the deeper of the lowest commercially mineable coal seam or underground source of drinking water to three (3) feet below ground elevation must be:</p> <p>(1) removed;</p> <p>(2) ripped; or</p>

(3) cemented in place using a method approved by the division.

(e) Uncemented intervals must be filled with:

- (1) pea gravel;
- (2) crushed rock;
- (3) drilling mud;
- (4) gel; or
- (5) water.

(f) An owner or operator must obtain prior approval from the division for the use of cement. Cement must meet American Petroleum Institute (API) specification 10(A) or American Society for Testing and Materials (ASTM) Specification C150 Standards for Portland cement. If a pozzalan cement mixture is used, the pozzalanic content by volume must not exceed fifty percent (50%).

(g) An owner or operator must obtain prior approval from the division for the use of a mechanical plug. The mechanical plug must meet API specification 11D1.

(h) An owner or operator must place any cement plug using one (1) of the following methods:

- (1) Dump bailing on top of a mechanical plug.
- (2) Pump and plug or displacement through:
 - (A) tubing;
 - (B) coiled tubing; or
 - (C) drill pipe.
- (3) For any well with two (2) or fewer completed zones and circulated casing, surface pumping or bullhead plugging from the uppermost completed zone to three (3) feet below ground elevation.

(i) To ensure the proper plugging of wells, the division may require one (1) or more of the following:

- (1) Use of mechanical plugs in nonstatic wells (as defined in 312 IAC 16-1-44.6).
- (2) Submission of cement and service company tickets.
- (3) Removal of any unauthorized material placed in a hole before plugging.
- (4) Sampling and testing of cement plugs.

(j) The division director may authorize the use of alternative plugging materials and methods to achieve any of the following:

- (1) To protect human health or safety.
- (2) To protect the environment.
- (3) To prevent unreasonably detrimental effects upon fish, wildlife, or botanical resources.
- (4) To avoid unreasonable efforts to remove obstructions below the deepest underground source of drinking water.

An owner or operator must obtain prior approval from the division director before using an alternative material or method.

(k) Except as provided in subsection (l) or (m), an owner or operator must not plug a well unless a division representative is present to witness the plugging. If a well is plugged without a division representative present to witness the plugging, the owner or operator may be required by the division director to drill out and plug the well in the presence of a division representative.

(l) If an owner or operator and a division representative have scheduled the plugging of a well, but a division representative is not present at the scheduled time or place, the owner or operator may plug the well in the absence of a division representative only after making a reasonable attempt to have another division representative present to witness the plugging. If a division representative did not witness the plugging, the owner or operator may seek approval for the plugging from the division director under a Special Plugging Affidavit. To qualify for approval of a Special Plugging Affidavit, the owner or operator must do the following:

- (1) Provide a confirmation number to establish that the plugging was scheduled with the division.
- (2) Demonstrate that a reasonable attempt was made to have another division representative present to witness the plugging.
- (3) Submit a cement ticket that identifies the well and shows the amount of cement delivered.
- (4) Submit the completed Special Plugging Affidavit.

(m) If a well was plugged by a former owner or operator before the effective date of this section and a division representative was not present to witness the plugging, the owner or operator shall request the approval of a Special Plugging Affidavit from the division director. To qualify for a Special Plugging Affidavit under this subsection, the owner or operator must submit the following:

- (1) A cement ticket that identifies the well and shows the amount of cement delivered.
- (2) The completed Special Plugging Affidavit.

(n) The owner or operator must submit a report of each permanent plugback on a form approved by the division.

(o) A plugging and abandonment report must be signed by the following persons:

- (1) The owner or operator or an authorized agent for the owner or operator.
- (2) The person who supplied or prepared the cement.
- (3) The division representative who witnessed the plugging.
- (4) The division employee who reviewed the information contained in the report.

(p) Within six (6) months after plugging a well, the owner or operator must perform the following acts:

- (1) Cut off and remove all casing from three (3) feet below ground elevation to the surface.
- (2) Remove substructures.
- (3) Clear the well site of refuse and equipment.
- (4) Remove and properly dispose of waste fluids from the well site.
- (5) Fill all excavations at the well site.
- (6) Restore the well site as nearly as practicable to its condition before drilling.
- (7) If necessary, initiate a cleanup at the well site under sections 24 through 29 of this rule.

(q) In addition to the requirements of subsection (p), the owner or operator must, within six (6) months after the plugging of the last well on the lease, perform the following acts:

- (1) Remove and properly dispose of waste fluids.

		<p>(2) Remove the tank battery from the lease. (3) Clear the lease of refuse and equipment. (4) Fill all excavations. (5) Restore the tank battery and excavation site as nearly as practicable to its condition before operation. (6) If necessary, initiate a cleanup of the tank battery and excavation site under sections 24 through 29 of this rule.</p> <p>(r) The owner of surface rights may, with the consent of the owner or operator, accept responsibility for either or both of the following, by so indicating on the division's well completion form: (1) Equipment, fixtures, or excavations placed with respect to a well drilled for oil and gas purposes. (2) A well plugged up to a zone containing fresh water.</p> <p>If the owner of surface rights accepts responsibility under this subsection, the owner or operator and its agents are released from responsibility for those items for which the owner of surface rights accepts responsibility.</p>
Tanks		<p>312 IAC 16-5-11 Fire prevention</p> <p>(b) All lease and storage tanks shall be surrounded by an impermeable dike that has a capacity of one and one-half (1½) times that of the tank or tanks it surrounds. The dike and the area within the dike shall be maintained free from vegetation, fluids, and inflammable materials. The dike shall not be breached.</p>
Pits		<p>312 IAC 16-5-11 Fire prevention</p> <p>Sec. 11. (a) To prevent fire hazards, all waste oil, cut oil, bottom sediments, and tank bottoms shall be collected in burn off pits located a safe distance from any oil well, oil storage tank, building, or other structure and shall be burned as necessary to prevent overflowing. Before any burn off pit is constructed, the owner or operator shall file an application with the division on a division form. Waste oil in tank bottoms shall be conveyed from storage tanks to pits in such a manner as to not create a fire hazard. Pits shall be constructed to prevent the escape of oil and of sufficient height to prevent surface water from entering the pit. No pits shall be constructed where the soil is porous and closely underlaid by either gravel or sand strata. These pits shall not be used to collect production brine. The burn off pits and their walls shall be kept free of vegetation.</p> <p>312 IAC 16-5-12 Mud pits</p> <p>Sec. 12. (a) An owner or operator shall construct and maintain necessary mud circulation and reserve pits. (b) Upon completion of a well, pits shall be filled and leveled. The surface shall be restored as nearly as practicable to conditions existing before drilling commenced.</p> <p>312 IAC 16-5-13 Disposal of salt water and other waste liquids</p> <p>Sec. 13. (a) To prevent surface or underground pollution, a person must not dispose of a fluid that results from the development or production of a well for oil and gas purposes except as approved by the division. (b) Evaporation pits are prohibited. (c) A pit may be authorized under a permit for oil and gas purposes for backwash water, for emergency use, or in connection with a Class II well, if the pit: (1) is surrounded by walls that prevent the entry of surface drainage from adjacent areas; (2) is located at least one hundred (100) feet from any: (A) stream; (B) river; (C) lake; or (D) drainage way; (3) conforms to IC 14-28-1, IC 14-28-3, and 312 IAC 10 and is constructed to prevent flooding during a regulatory flood; (4) is: (A) constructed according to plans approved by the division, including the placement of an impermeable liner; and (B) found by a commission representative to conform to the plans before utilization; (5) is maintained so that the level of contained fluids in the pit is kept at least two (2) feet below the top of the pit wall having the lowest elevation; and (6) conforms to all other requirements of law, including those pertaining to Class II wells. (d) Fluids shall be removed from an emergency pit as soon as the emergency can be abated. Construction or maintenance of a pit other than as provided in subsection (c) and this subsection may result in revocation of any permit for oil and gas purposes associated with the pit.</p>
Exempt Waste Handling		<p>312 IAC 16-5-13 Disposal of salt water and other waste liquids</p> <p>Sec. 13. (a) To prevent surface or underground pollution, a person must not dispose of a fluid that results from the development or production of a well for oil and gas purposes except as approved by the division.</p> <p>312 IAC 16-5-27 Disposal</p> <p>Sec. 27. (a) Oil or fluid contaminated with oil must be managed using one (1) of the following methods: (1) Oil or fluid contaminated with oil may be applied to lease roads for the purpose of dust suppression in a manner designed to ensure that the</p>

materials do not leave the roadbed. Oil or fluid contaminated with oil must be:

- (A) stored in a leak-free tank; and
- (B) applied to lease roads within seventy-two (72) hours of removal from the secondary containment unless a longer period of time is authorized by the division.

(2) Oil or fluid contaminated with oil may be:

- (A) placed in a leak-free tank; and
- (B) returned to crude oil production in accordance with this article.

(3) Oil or fluid contaminated with oil may be disposed of in a solid waste land disposal facility if such disposal is approved by the Indiana department of environmental management.

(b) Saltwater or fluid contaminated with saltwater must be:

- (1) injected into a Class II well authorized under 312 IAC 16-3; or
- (2) discharged under a NPDES permit issued by the Indiana department of environmental management.

(c) Soil contaminated with oil or saltwater may be disposed of as alternate daily cover in a municipal solid waste landfill permitted under 329 IAC 10 in accordance with:

- (1) 329 IAC 10-20-14.1; and
- (2) the permit issued to the landfill under 329 IAC 10.

(d) After three hundred sixty-five (365) days of remediation, or another time period approved by the division, all soil contaminated with oil that has a remaining concentration of polynuclear aromatic hydrocarbons greater than the values listed in Table 3 in section 25(h) of this rule must be:

- (1) excavated;
- (2) removed from the facility;
- (3) disposed of in accordance with 329 IAC 10-8.1-13 in a municipal solid waste landfill permitted by the Indiana department of environmental management under 329 IAC 10; and
- (4) replaced with comparable uncontaminated soil.

(e) All soil contaminated with oil that is not permitted to be remediated under section 25 of this rule must be:

- (1) excavated;
- (2) removed from the facility;
- (3) disposed of in accordance with 329 IAC 10-8.1-13 in a municipal solid waste landfill permitted by the Indiana department of environmental management under 329 IAC 10; and
- (4) replaced with comparable uncontaminated soil.

Spills

Facility Failure Report, Form R7

312 IAC 16-5-22 Spill containment

Sec. 22. (a) An owner or operator shall contain all spills of oil or saltwater as required by this section.

(b) Spills that are not confined within a secondary containment structure shall be contained by the placement of absorbent materials, emergency excavations, or by other collection means designed to prevent the migration of the spill.

(c) Used absorbent materials shall be disposed of:

- (1) in a municipal solid waste landfill permitted under 329 IAC 10; or
- (2) in another manner approved by the division.

312 IAC 16-5-23 Spill reporting

Sec. 23. (a) An owner or operator shall report all spills of oil or saltwater as required by Table 1 as follows:

Table 1. Spill Reporting Requirements

Size and Location of the Spill	Report the Spill to the: Indiana Department of Natural Resources	Indiana Department of Environmental Management
More than 2,000 gallons of oil or saltwater that is contained in a secondary containment structure approved by the Department of Natural Resources.	Not more than 48 hours after discovery of the spill.	
More than 1,000 gallons of oil or saltwater that is not contained in a secondary containment structure approved by the Department of Natural Resources.	Not more than 2 hours after discovery of the spill.	

Less than 1,000 gallons but more than 42 gallons of oil or saltwater that is not contained in a secondary containment structure approved by the Department of Natural Resources but is contained within the boundary of the facility.	Not more than 48 hours after discovery of the spill.	
More than 55 gallons of oil that is not contained within the boundary of a facility.		Not more than 2 hours after discovery of the spill.
Less than 55 gallons of oil or saltwater that is not contained within the boundary of a facility.	Not more than 48 hours after discovery of the spill.	
Any spill of oil or saltwater that enters waters of the state. Not more than 2 hours after discovery of the spill.		Any spill of oil or saltwater: Not more than 2 hours after discovery of the spill. (1) that has not been cleaned up in accordance with section 24 of this rule; or (2) for which cleanup has not been started in accordance with section 24 of this rule.
Any spill of less than 42 gallons of oil or saltwater that does not enter waters of the state.	No report required.	

(b) Spills required by Table 1 to be reported to the Indiana department of natural resources must be reported to the Evansville field office by telephone at (812) 477-8773, or by facsimile at (812) 477-8952.

(c) Spills required by Table 1 to be reported to the Indiana department of environmental management must be reported to the office of environmental response at (317) 233-7745 or (888) 233-7745 (toll-free in Indiana).

312 IAC 16-5-24 Spill cleanup

Sec. 24. (a) An owner or operator shall clean up spills of oil, fluids contaminated with oil, or saltwater as required by this section.

(b) Oil or fluid contaminated with oil that is confined within a secondary containment structure or collected as required by section 22 of this rule must be:

- (1) removed within seventy-two (72) hours;
- (2) placed in a nonleaking storage tank; and
- (3) managed or disposed of in accordance with section 27(a) of this rule.

(c) Saltwater that is confined within a secondary containment structure or collected as required by section 22 of this rule must be:

- (1) removed within seventy-two (72) hours;
- (2) placed in a nonleaking storage tank; and
- (3) disposed of in accordance with section 27(b) of this rule.

(d) Fluid placed in a nonleaking storage tank under subsection (b) or (c) must be disposed of in accordance with section 27 of this rule within thirty (30) days after discovery of the spill unless additional time is approved by the division.

(e) Soils contaminated with more than one (1) gallon of oil must be cleaned up as follows:

- (1) Soils that meet the conditions for remediation in section 25(c) of this rule may be:
 - (A) remediated at the facility as required by section 25 of this rule;
 - (B) applied to lease roads in accordance with section 27(a)(1) of this rule; or
 - (C) excavated and disposed of as required by section 27(d) of this rule.

(2) Soils that do not meet the conditions for remediation in section 25(c) of this rule must be excavated and disposed of as required by section 27(e) of this rule.

(f) Soils contaminated with saltwater must be cleaned up as required by section 26 of this rule.

(g) Soils contaminated with oil that will be remediated under section 25 of this rule must be managed to prevent discharge of oil to unaffected soil or waters of the state.

312 IAC 16-5-25 Remediation of soils contaminated with oil

Sec. 25. (a) The owner or operator may clean up soils contaminated with oil using remediation at the facility only as required by this section.

(b) The owner or operator may use a remediation method for soils contaminated with crude oil that is documented with a standard or procedure published by one (1) of the following:

- (1) A department or agency of the federal government.
- (2) A state environmental or natural resources agency.
- (3) American Society for Testing and Materials.
- (4) National Fire Protection Association.
- (5) American Petroleum Institute.

(c) Remediation may be used at a facility only if all of the following conditions are met:

- (1) Remediation is not prohibited by Table 2 in subsection (e).

- (2) The slope of the remediation site is less than six percent (6%).
- (3) The remediation site is not:
 - (A) subject to frequent, common, or occasional flooding as described in the soil survey prepared for the county by the natural resources conservation service;
 - (B) located in a flood plain or a floodway as defined at 310 IAC 6-1-3; or
 - (C) a wetland.
- (4) The surface soil at the remediation site is not classified as a hydric soil in the soil survey prepared for the county by the Natural Resources Conservation Service. Soil surveys are available from the Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013; from the State Conservationist, 6013 Lakeside Boulevard, Indianapolis, Indiana 46278, (317) 290-3200 extension 301; or from the cooperative extension service office in the county.
- (5) The entire remediation site is within the boundary of the facility.
- (6) No part of the remediation site is within one hundred (100) feet of any surface water or field tile.
- (7) No part of the remediation site is within one thousand five hundred (1,500) feet of any public water supply well.
- (8) No part of the remediation site is within five hundred (500) feet of any domestic water well.
- (9) No part of the remediation site is within a wellhead protection area that is delineated and approved in accordance with rules of the water pollution control board at 327 IAC 8-4.1.
- (d) Contaminated soil that is not permitted to be remediated by Table 2 in subsection (e) must be excavated and disposed of as required by section 27 of this rule.
- (e) The remediation method to be used must be determined by the soil characteristics that exist at the remediation site as described in Table 2 as follows:

Table 2. Requirements for Remediation Based on Permeability of Surface Soil and Depth of Ground Water at the Remediation Site permeability

Permeability ¹ and Depth of Ground Water ¹	Remediation Requirements
More than 2.0 inches/hour and Less than 6 feet depth to ground water	Remediation is not permitted.
More than 2.0 inches/hour permeability and More than 6 feet depth to ground water	Use a liner that meets the requirements of subsection (f).
Less than 2.0 inches/hour permeability and Less than 6 feet depth to ground water	Use a liner that meets the requirements of subsection (f).
Less than 2.0 inches/hour permeability and More than 6 feet depth to ground water	No restrictions.

¹Permeability of surface soil and depth of ground water during the remediation as described in the soil survey prepared for the county by the Natural Resources Conservation Service or by on-site inspection and analysis by a qualified soil scientist or licensed professional geologist. Soil surveys are available from the Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013; from the State Conservationist, 6013 Lakeside Boulevard, Indianapolis, Indiana 46278, (317) 290-3200 extension 301; or from the cooperative extension service office in your county.

- (f) If a liner is required by Table 2 in subsection (e), remediation may be conducted on any site where one (1) of the following has been constructed:
 - (1) A synthetic liner that meets all of the following requirements:
 - (A) Constructed of a minimum of twenty (20) mil polyethylene or its equivalent.
 - (B) Hydraulic conductivity of 1×10^{-6} centimeters per second or less.
 - (C) Installed in accordance with the manufacturer's directions.
 - (D) Equipped with a leachate collection system that collects all leachate from the remediation site for monitoring and proper disposal.
 - (E) Installed at least two (2) feet above the depth of ground water.
 - (2) A compacted soil liner that meets all of the following requirements:
 - (A) Constructed of soil compacted to a depth of two (2) feet.
 - (B) Hydraulic conductivity of 1×10^{-6} centimeters per second or less.
 - (C) Installed at least two (2) feet above the depth of ground water.
- (g) The owner or operator shall:
 - (1) begin remediation as soon as practicable but not more than one hundred twenty (120) days after discovery of the spill;
 - (2) notify the division within seven (7) days after beginning remediation;
 - (3) follow the remediation method or procedure selected as closely as possible;
 - (4) monitor the remediation site as required by section 28 of this rule during remediation; and
 - (5) complete remediation as described in subsection (h) within:
 - (A) three hundred sixty-five (365) days after beginning remediation; or
 - (B) another time period approved by the division.

(h) Remediation of soils contaminated with oil is complete when the concentration of polynuclear aromatic hydrocarbons in the soil is reduced to the values shown in Table 3:

Table 3. Criteria for Completion of Remediation of Soils Contaminated with Oil

Contaminant	Maximum Concentration ¹
Acenaphthene	130 ppm
Anthracene	51 ppm
Benzo(a)anthracene	2 5.0 ppm
Benzo(b)fluoranthene	2 5.0 ppm
Benzo(k)fluoranthene	2 39 ppm
Benzo(a)pyrene	2 0.50 ppm
Chrysene	2 26 ppm
Dibenz(a,h)anthracene	2 0.5 ppm
Fluoranthene	880 ppm
Fluorene	170 ppm
Indeno(1,2,3-cd)pyrene	2 3.0 ppm
Naphthalene	0.70 ppm
Pyrene	570 ppm

¹The maximum concentration of polynuclear aromatic hydrocarbons in soil contaminated with oil is determined by testing a representative sample of that soil using U.S. EPA Method 8310, "Polynuclear Aromatic Hydrocarbons". Method 8310 is found in the U.S. Environmental Protection Agency Publication SW-846, Third Edition (November 1986), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), and III (December 1996). U.S. Environmental Protection Agency Publication SW-846 is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, (202) 512-1800. ²This substance is a carcinogen identified in the RISC Technical Resources Guidance Document, Draft February 18, 1999.

(i) If the contaminated soil does not meet the completion criteria in subsection (h) within:

- (1) three hundred sixty-five (365) days after beginning remediation; or
- (2) another time period approved by the division;

the owner or operator shall excavate all soil that does not meet the completion criteria in subsection (h) and dispose of that soil as required by section 27 of this rule.

312 IAC 16-5-26 Remediation of soils contaminated with saltwater

Sec. 26. (a) The owner or operator shall clean up soils contaminated with saltwater using remediation at the facility only as required by this section.

(b) The owner or operator may use a remediation method for soils contaminated with saltwater that is documented with a standard or procedure published by one (1) of the following:

- (1) A department or agency of the federal government.
- (2) A state environmental or natural resources agency.
- (3) American Society of Testing and Materials.
- (4) American Petroleum Institute.

(c) Instead of using a method described in subsection (b), the owner or operator may submit to the division a written remediation plan that is designed to:

- (1) prevent additional soil damage;
- (2) prevent soil erosion;
- (3) where feasible, remediate the soil to a condition where it can support vegetation;
- (4) establish vegetative cover; and
- (5) where feasible, use a vegetative cover with palatability and seasons of use characteristics similar to the vegetation already present on adjoining uncontaminated sites.

(d) If the division approves a remediation plan submitted under subsection (c), the owner or operator may use that approved remediation plan to clean up soils contaminated with saltwater at the facility.

Kansas		
Topic	Associated Forms	Regulations: http://www.kcc.state.ks.us/conservation/cons_rr_110907.pdf
		Excerpted Text by Topic
Permitting	Notice of Intent to Drill, Form C-1	<p>The State Corporation Commission of the State of Kansas General Rules and Regulations</p> <p>82-3-103. NOTICE OF INTENTION TO DRILL; PENALTY.</p> <p>(a) Notice required. (1) Intent to drill. Unless otherwise provided by K.A.R. 82-3-115a or K.A.R. 82-3-701, the owner, operator, or any other person responsible for a drilling operation shall submit written notice of the intention to drill to the conservation division for permit approval before the commencement of drilling operations for any of the following: (A) Exploratory holes; (B) a well to be drilled for the discovery or production of oil, gas, or other minerals, including reentry of a previously plugged and abandoned well; (C) a service well; (D) a storage well; or (E) a stratigraphic or core hole. (2) Form and contents. The notice shall be submitted on a form prescribed by the commission.</p> <p>(b) District office notification. Before spudding the well, the operator shall notify the appropriate district office. Failure to notify the appropriate district office before spudding the well shall be punishable by a penalty of not less than \$250 and not more than \$1000.</p> <p>(c) Surface casing and cementing. The conservation division shall give surface casing and cementing requirements to the operator along with the approved notice of the intention to drill. Unless otherwise provided, inadequate installation of or failure to install surface casing or failure to complete alternate II cementing pursuant to K.A.R. 82-3-106 shall each be punishable by a penalty of up to \$5000.</p> <p>(d) Commencement of drilling. Drilling shall not commence until after commission approval has been received. The operator shall post a copy of the approved notice of intent to drill on each drilling rig. Drilling before receiving commission approval or drilling without an approved notice of intent to drill posted on the drilling rig shall be punishable by a \$1000 penalty.</p> <p>(e) Plugging instructions. The conservation division shall give preliminary plugging instructions to the operator along with the approved notice of intention to drill.</p> <p>(f) Expiration of approval. The approval of the notice of intent to drill shall expire one year from the date of approval.</p> <p>(g) Extension. No extension of the one-year period shall be granted.</p> <p>(h) Division of water resources information. The operator may be required by the commission to designate, on the written notice of intention to drill, the source of drilling water and the vested right or permit file number assigned by the division of water resources of the state department of agriculture.</p>
Well Treatment, Stimulation and Fracturing		No specific regulations located
Well Construction	Well Completion Form, Form ACO-1	<p>82-3-104. POLLUTION; PREVENTION.</p> <p>Every person who drills a well or test hole, for any purpose, that penetrates formations containing oil, gas, fresh water, mineralized water, or valuable minerals shall case or seal off these formations to effectively prevent migration of oil, gas or water from or into strata that would be damaged by this migration. The effectiveness of the casing or sealing off shall be tested in a manner prescribed or approved by an agent of the commission.</p> <p>82-3-105. WELL CEMENTING.</p> <p>The use of cement in setting casing or sealing off producing formations, underground porosity gas storage formations, or fresh and usable water formations shall be required.</p> <p>82-3-106. CEMENTING-IN SURFACE CASING; PENALTY.</p> <p>(a) Beginning of drilling operations. Drilling shall not begin until the operator has received the approved notice of intent to drill from the conservation division, pursuant to K.A.R. 82-3-103. The notice of intent to drill shall indicate the amount of surface casing that shall be set.</p> <p>(b) Depth.</p>

		<p>The depth of required surface casing shall be determined in the following manner.</p> <p>(1) The operator shall set a minimum of 50 feet of steel surface casing in the well, except as otherwise provided by paragraph (b)(2).</p> <p>(2) Table I, which establishes minimum surface casing requirements as incorporated by reference in commission order dated August 1, 1991, docket no. 34,780-C (C-1825), shall be used to determine the required depth of the surface casing and the cementing requirements for the protection of fresh and usable water. Upon submission of additional information, adjustments to the required depth of the surface casing may be made by the commission. These adjustments shall be indicated on the approved notice of intent to drill.</p> <p>(A) Operators who drill wells in areas referenced in commission order dated June 29, 1994, docket no. 133,891-C, may set surface casing at the minimum depth set forth in that docket.</p> <p>(B) An exception to the requirements set forth in table I, as incorporated by reference in commission order dated August 1, 1991, docket no. 34,780-C (C-1825), may be granted by the director.</p> <p>(3) The failure to install surface casing shall be punishable by a \$5000 penalty, and any well not in compliance with the requirements of this regulation shall be shut-in until compliance is achieved.</p> <p>(c) Cementing and time requirements.</p> <p>Protection of fresh and usable water shall be accomplished by one of the two following alternatives.</p> <p>(1) Alternate I. The surface casing shall be cemented to the surface with a portland cement blend. The surface casing shall be set and cemented below all fresh and usable water strata, according to the requirements established pursuant to subsection (b). An operator shall not drill to any depth to test for oil or gas without having set and cemented a continuous string of surface casing.</p> <p>(2) Alternate II. Surface casing shall be set and cemented in the following manner:</p> <p>(A) The first string of casing shall be set through all unconsolidated material plus 20 feet into the underlying formation. The surface casing shall be cemented to the surface with a portland cement blend. An operator shall not drill to any depth to test for oil or gas without having set and cemented this string of casing.</p> <p>(B) (i) All additional casing which is next to the borehole shall be cemented by circulating cement to the surface from a point at least 50 feet below the base of the lowest known fresh and usable water, according to the requirements established pursuant to subsection (b). Cementing shall be completed with a portland cement blend except as provided by paragraph (d)(3).</p> <p>(ii) The operator shall notify the appropriate district office prior to the cementing of the additional casing. If a time period is specified by table I, as incorporated by reference in commission order dated August 1, 1991, docket no. 34,780-C (C-1825), the additional cementing shall be completed within the time period specified. If a time period is not specified in table I, referred to in paragraph (b) (2), the additional cementing shall be completed within a time period sufficient to allow compliance with K.A.R. 82-3-106(e). Extensions of the time period within which the additional cementing must be completed may be granted by the director. Requests for these extensions shall be made in writing and shall state the reason for extension. Requests shall be submitted to the director within 120 days after the spudding of the well.</p> <p>(iii) A backside squeeze, which is the uncontrolled placement of cement in the annular space between the surface casing and the production casing from the surface down, shall be permitted only upon a request to the appropriate district office. Requests shall be granted only upon the approval of the cement evaluation method to be utilized and submitted as verification of cement placement.</p> <p>(d) Methods and materials to be used in setting and cementing of surface casing.</p> <p>(1) In setting surface casing, the surface hole diameter shall be sufficiently larger than the surface casing to permit circulation of the cement.</p> <p>(2) The annular space between the surface casing and the borehole shall be filled with a portland cement blend. The cement shall be maintained at surface level.</p> <p>(3) The use of any material other than a portland cement blend shall be prohibited except for the alternative cementing materials as defined by commission order dated August 1, 1991, docket no. 34,780-C (C-1825), which is incorporated by reference.</p> <p>(4) The cemented casing string shall stand and further operations shall not begin until the cement has been in place for at least eight hours and has reached a compressive strength of 300 pounds per square inch. This requirement may be modified by specific order of the commission.</p> <p>(e) Affidavit.</p> <p>(1) Each operator shall file a sworn affidavit with the conservation division setting out the type, amount, and method of cementing used on all casing strings in a wellbore. The affidavit shall be filed within 120 days of the spud date of the well, or as otherwise required by K.A.R. 82-3-130(b), on the form provided by the commission.</p> <p>(2) Legible documentation of the cementing operations across fresh and usable water strata shall be attached to the affidavit. The documentation may consist of invoices, job logs, job descriptions, or other similar service company reports.</p> <p>(3) Falsification of documentation or the failure to complete alternate II cementing shall be punishable by a \$5000 penalty, and any well not in compliance with requirements of this regulation shall be shut-in until compliance is achieved.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Temporary Abandonment Application, Form CP-111</p> <p>Dual Completion Report, Form ACO-5</p>	<p>82-3-111. TEMPORARILY ABANDONED WELLS; PENALTY; PLUGGING.</p> <p>(a) Temporary abandonment approval or plugging required. Within 90 days after operations cease on any well drilled for the purpose of exploration, discovery, service, or production of oil, gas, or other minerals, the operator of that well shall perform either of the following:</p> <p>(1) Plug the well; or</p> <p>(2) file an application with the conservation division requesting temporary abandonment authority, on a form prescribed by the conservation division.</p> <p>(b) Approval of temporary abandonment. No well shall be temporarily abandoned as described above unless first approved by the conservation division. If the operations on any temporarily abandoned well or other inactive well are not resumed within a period of one year after the application has been approved, the well shall be deemed a permanently abandoned well, and the operator of the well shall comply with rules and regulations of the commission relating to the plugging of wells. Upon application to the conservation division before the expiration of the one-year period, and for good cause shown, the period may be extended by the conservation division for one year. Additional one-year extensions may be granted by the conservation division. The failure to file a notice of temporary abandonment shall be punishable by a \$100 penalty.</p>

		<p>(c) Right of denial. After an application for temporary abandonment has been filed, the well shall be subject to inspection by the conservation division to determine whether its temporary abandonment could cause pollution of fresh and usable water resources. If necessary to prevent the pollution of fresh and usable water, temporary abandonment may be denied by the conservation division, and the well may be required to be plugged or repaired according to the direction of the conservation division and in accordance with its rules and regulations.</p> <p>(d) Plugging of temporarily abandoned wells. At the expiration of the maximum temporary abandonment period, each well temporarily abandoned shall be plugged, repaired, or returned to operation in accordance with applicable rules and regulations.</p> <p>(e) Certain wells exempted. The requirements of this regulation shall not apply to any well that meets all of the following criteria:</p> <ol style="list-style-type: none"> (1) The well is fully equipped for production of oil or gas, or injection. (2) The well is capable of immediately resuming production of oil or gas, or injection. (3) The well is subject to a valid, continuing oil and gas lease. (4) The cessation period for the well is less than 365 consecutive days. (5) The well is otherwise in full compliance with all of the commission's regulations. <p>(f) Post-exemption requirements. The date on which a well ceases to qualify for the exemption specified in subsection (e) shall be deemed to be the date operations ceased on the well, for purposes of subsection (a).</p>
Plugging	<p>Well Plugging Application, Form CP-1</p> <p>Well Plugging Record, Form CP-4</p>	<p>82-3-113. NOTICE OF INTENTION TO PLUG AND ABANDON A WELL; SUPERVISION; PENALTY.</p> <p>(a) Notice required; penalty. Before any work is commenced to plug and abandon any well drilled for the discovery of oil or gas, for underground porosity gas storage, or for disposal of salt water, or to plug and abandon any injection well for enhanced recovery, including any well drilled below the fresh and usable water level, the operator shall give written notice to the conservation division of the intention to plug and abandon that well. The notice shall be submitted upon a form furnished by the conservation division and shall contain all of the information requested on it. The failure to file a notice of intention to plug and abandon a well shall be punishable by a \$100 penalty.</p> <p>(b) Plugging instructions; scheduling.</p> <ol style="list-style-type: none"> (1) Upon receipt of the notice, the notice shall be acknowledged by the conservation division by letter to the operator. The letter shall provide instructions to the operator, including the name of the district office that is to be notified, and a requirement that the operator submit a proposed plugging plan. (2) The operator shall notify the appropriate district office of the operator's proposed plugging plan no later than five days before the plugging. <p>(c) Exceptions. Exceptions from the notice requirement on the plugging of wells may be granted by the district office if either of the following conditions is met:</p> <ol style="list-style-type: none"> (1) A drilling rig already at work on location is ready to commence plugging operations on a dry and abandoned well. (2) An emergency situation exists. In this case, the operator shall orally notify and present the plugging proposal to the district office. <p>82-3-114. PLUGGING METHODS AND PROCEDURE.</p> <p>(a) Plugging of producing, storage, and injection wells. In addition to any other applicable requirements in these regulations, the methods and procedure for plugging a well drilled for exploration of oil or gas, for underground porosity gas storage, or for injection shall be as follows:</p> <ol style="list-style-type: none"> (1) For productive or past-productive oil or gas formations, a cement plug not less than 50 feet in length or a bridge capped with cement shall be placed above each such formation. (2) Cement plugs of 50 feet or more in length shall be placed both above and below any fresh or usable water horizons. The lower plug shall extend at least 50 feet below the base of water zones, and the upper plug shall extend at least 50 feet above the top of the water zones. (3) In each well plugged, a cement plug shall be placed near the surface of the ground in a manner that does not interfere with soil cultivation. <p>(d) Well location exceptions. In wells located within 330 feet from the lease or unit boundary or located within less than the minimum distance specified in K.A.R. 82-3-108(b), all zones that are perforated or open in the well and that are being produced on the lease adjacent to that boundary shall be plugged. This requirement shall not apply to zones that are not producing within one-half mile of the well to be plugged.</p> <p>(e) Plugging intervals. All intervals between plugs within the same wellbore shall be filled with an approved heavy, mud-laden fluid of not less than 36 viscosity as measured using the marsh funnel method described in sections 4.1 and 4.2 of the "recommended practice standard procedure for field testing water-based drilling fluids," second edition, dated September 1997 and published by the American petroleum institute. Sections 4.1 and 4.2 of this document are hereby adopted by reference. The approved heavy, mud-laden fluid shall have a weight of not less than nine pounds per gallon. If the requirements of this subsection are not met, a bridge shall be set at all plugging intervals.</p> <p>(f) Alternative plugging methods; when authorized.</p> <ol style="list-style-type: none"> (1) If the procedures specified in this regulation cannot be followed due to conditions in the casing or wellbore, alternative plug placement while ensuring the protection of fresh and usable water may be authorized by a representative of the commission. (2) The operator, with the approval of the representative of the commission, may place cement in the well by using a dump bailer, pumping through tubing, or using any other method approved by the commission. <p>(g) Tagging plugs. Plugs may be tagged by the commission at the direction of the director of the conservation division.</p>
Tanks		No specific regulations located other than tank identification requirements
Pits	Application for Surface Pit,	82-3-600. PIT PERMITS; PENALTY; APPLICATION AND APPROVAL.

<p>Form CDP-1</p> <p>Closure of Surface Pit, Form CDP-4</p>	<p>(a) Pits shall not be used to contain fluids resulting from oil and gas activities until approved by the commission. Pits shall be permitted only upon application to and approval by the commission. Use of a pit without a pit permit shall be punishable by a \$500 penalty. Pit permits shall be considered granted unless denied within 10 days after the commission's receipt of the application.</p> <p>The following types of pits may be authorized by the commission:</p> <ol style="list-style-type: none"> (1) Drilling pit, which shall include reserve pits and working pits; (2) work-over pit; (3) emergency pit; (4) settling pit; (5) burn pit; and (6) haul-off pit. <p>(b) Each application shall be verified and filed with the conservation division upon the form prescribed by the commission.</p> <p>(c) In reviewing applications for pit permit approval, the protection of soil and water resources from pollution shall be considered by the commission. The chloride concentration of drilling fluids and produced waters to be contained in pits and the geohydrologic characteristics of the pit location shall be considered in determining the pollution risk that a particular pit poses to water resources.</p> <p>(d) Work-over pits may be permitted through verbal authorization from the appropriate district office supervisor or a designated staff member, subject to the filing of a pit application within five days after the verbal authorization.</p> <ol style="list-style-type: none"> (1) Requests for verbal authorization shall be made no less than 24 hours before the intended work-over operation. However, if emergency circumstances require immediate work-over operations, requests for verbal authorization may be made less than 24 hours before the intended operation. (2) The operator requesting verbal authorization shall provide the information required on the application form to the appropriate district office at the time of the request. <p>(e) Each operator shall notify the appropriate district office, as specified in K.A.R. 82-3-603, that a temporary containment pit was constructed. A permit shall not be required for a containment pit constructed and used in accordance with this subsection.</p> <p>(f) Each operator of a pit shall perform the following:</p> <ol style="list-style-type: none"> (1) Install observation trenches, holes, or wells if required by the commission; (2) seal any pit, except burn pits, with liners as specified in K.A.R. 82-3-601a (b)(1) through (6) if the commission determines that an unsealed condition will present a pollution threat to soil or water resources; and (3) prevent surface drainage from entering the pit. <p>(g) A pit permit shall not be required for the construction of a dike at an oil and gas facility.</p> <p>82-3-600a. PIT PERMIT REVOCATION.</p> <p>A pit permit may be revoked by the director of the conservation division if fresh or usable water resources are in danger of becoming polluted by the use of the pit or if the operator of a pit is not in compliance with the permit requirements. Each pit for which the permit has been revoked shall be closed according to K.A.R. 82-3-602.</p> <p>82-3-601a. PIT CONSTRUCTION; SENSITIVE GROUNDWATER AREAS; REPORTING.</p> <p>(a) Freeboard.</p> <p>All drilling, work-over, burn, and containment pits shall be constructed with a minimum of 12 inches of freeboard. All emergency and settling pits shall be constructed with a minimum of 30 inches of freeboard.</p> <p>(b) Pit construction.</p> <p>If required by the conservation division to be sealed, pits shall be constructed so that the bottoms and sides have a hydraulic conductivity no greater than 1×10^{-7} cm/sec. during their use. The hydraulic conductivity shall be established by liners, which shall include any of the following:</p> <ol style="list-style-type: none"> (1) A natural clay liner; (2) a soil-mixture liner composed of soil mixed with cement, bentonite, clay-type, or other additives to be applied to pits whose walls do not exceed a slope of three to one; (3) a recompacted clay liner composed of in situ or imported clay soils that are compacted or restructured to be applied to pits whose walls do not exceed a slope of three to one; (4) a manufactured liner composed of synthetic material to be applied to pits in a manner that ensures its integrity while the pit is open; (5) a combination of two or more types of liners described in paragraphs (b)(1) through (4); or (6) any other liner or groundwater protection system acceptable to the conservation division. <p>(c) Emergency pit construction.</p> <p>In sensitive groundwater areas as designated in table III as adopted by reference in K.A.R. 82-3-601b, emergency pits shall be sealed. Emergency pits located in sensitive groundwater areas shall be constructed and sealed as set out in paragraphs (b)(1) through (6).</p> <p>(d) Construction depth.</p> <p>No pit shall be constructed to a depth greater than five feet above the shallowest existing water table in the vicinity of the well.</p> <p>(e) Reporting.</p> <ol style="list-style-type: none"> (1) The hydraulic conductivity of natural liners shall be determined by one of the soil tests approved by the American society of testing and materials and contained in either of the following ASTM publications, both of which are hereby adopted by reference: <ol style="list-style-type: none"> (A) "Standard test methods for measurement of hydraulic conductivity of saturated porous materials using a flexible wall permeameter," published January 2001; and (B) "standard guide for comparison of field methods for determining hydraulic conductivity in the vadose zone," published December 1990 and reapproved in 1998. <p>Alternately, the hydraulic conductivity of natural liners shall be determined by using another field or laboratory test approved by the commission and conducted</p>
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		<p>by either the operator or the operator's contractor.</p> <p>(2) (A) Test results for pits required to be sealed according to subsection (b) shall be reported to the appropriate district office at the time of spud notification.</p> <p>(B) Written documentation of test results shall be filed with the conservation division on a form prescribed by the commission within five days after spudding the well.</p> <p>(C) Test results for work-over and emergency pits shall be reported to the conservation division when the pit application is filed.</p> <p>(D) The right to verify test results through on-site investigation may be exercised by the conservation division.</p> <p>82-3-602. TIME LIMITATION; PENALTY; CLOSURE OF PITS; CLOSURE FORMS; DRILLING FLUID MANAGEMENT; WASTE TRANSFER; SURFACE RESTORATION.</p> <p>(a) (1) The time limitation for the closure of each pit, unless otherwise specified in writing by the commission, shall be according to the following schedule:</p> <p>(A) Drilling pits or haul-off pits shall be closed within a maximum of 365 calendar days after the spud date of a well.</p> <p>(B) Work-over pits shall be closed within a maximum of 365 days after work-over operations have ceased.</p> <p>(C) Settling pits, burn pits, and emergency pits shall be closed within 30 days after cessation or abandonment of the lease.</p> <p>(2) Any pit permit may be extended upon written request by the operator and with the approval of the director. Failure to close any pit or to file an extension within the prescribed time limits set out in paragraphs (1)(A) through (C) of this subsection shall be punishable by a \$250 penalty.</p> <p>(b) Closure. Before backfilling any pit, the operator shall dispose of pit contents according to K.A.R. 82-3-607.</p> <p>(c) Closure form required. Each operator of a pit shall file a pit closure form prescribed by the commission within 30 days after the closure of the pit. Failure to file the pit closure form in accordance with this subsection shall be punishable by a \$100 penalty.</p>
<p>Exempt Waste Handling</p>	<p>Exploration and Production Waste Transfer, Form CDP-5</p> <p>Haul Off Application Filing Requirements Checklist, Form</p>	<p>55-1003. Disposal of oil-field or gas-field brines and mineralized waters; plans and specifications; approval; disposal wells; notice and hearing; judicial review; eminent domain.</p> <p>Each company or corporation engaged in the production of petroleum or natural gas in Kansas, or organized for the purpose of providing for disposal of oil-field or gas-field brines and mineralized waters, may own, lease, construct, operate, and maintain pipelines, reservoirs, treatment plants, disposal wells, and other facilities for the conveyance and disposal of such brines and mineralized waters. Any person, company or corporation engaged in the production of petroleum or natural gas in Kansas, or in the disposal of oil-field or gas-field brines and mineralized waters, may provide for financing and acquiring the necessary land, easements and rights-of-way, and may own, lease, construct, operate and maintain the works necessary for such disposal. For the disposal of oil-field or gas-field brines and mineralized waters, the plans and specifications for such disposal works shall be submitted to and be approved by the state corporation commission. The commission, in giving approval, shall determine that the proposed method of disposal:</p> <p>(1) Will not result in the loss or waste of gas or petroleum resources; and</p> <p>(2) is a feasible method to be employed in protecting the water resources of the state from preventable pollution. If the commission finds upon investigation that the most feasible method for the prevention of pollution is by a disposal well, the commission shall give notice thereof to the owner of wells producing such brines and mineralized waters of the findings. If the owner of the wells producing such brines and mineralized waters desires to contest the findings of the commission, such owner shall give notice to the commission within 10 days after receipt of notice thereof. Thereupon, the commission shall proceed to hear and determine the matter in accordance with the provisions of the Kansas administrative procedure act. If upon such hearing, the commission sustains the findings, or if such findings are not contested, the commission shall issue an order directing the owner of the wells producing such brines and mineralized waters to provide the necessary disposal system. Actions for judicial review of any action of the commission under the provisions of this act may be brought as provided in K.S.A. 55-606, and amendments thereto. Upon final order sustaining the findings of the commission, the owner of such wells shall provide the required disposal system in accordance with K.S.A. 55-901, and amendments thereto, and is hereby authorized to exercise the right of eminent domain as provided in K.S.A. 26-501 to 26-516, inclusive, and amendments to such sections, for the purpose of acquiring the necessary rights-of-way and sites for the disposal of such brines and mineralized waters.</p> <p>55-1004. Unlawful to dispose of certain waste in oil-field disposal wells at excessive pressures; penalties.</p> <p>It shall be unlawful for any person having possession, control or the use of any oil-field waste disposal well wherein salt water, mineralized brine, oil or refuse produced from any oil well is disposed of below the surface of the earth to inject such salt water, mineralized brine, oil or refuse from any oil well therein at a pressure in excess of the maximum pressure established by the state corporation commission and contained in the permit issued thereby except when non-compliance with this section is due to one or more causes beyond the control of such person and, once such person knows or should have known of such non-compliance, such person takes immediate and reasonable steps to gain prompt and full compliance with the applicable statutes and rules and regulations. The state corporation commission shall maintain a permanent record of the maximum pressure established by it on each such oil-field waste disposal well. Any person violating any of the provisions of this section shall be guilty of a severity level 9, nonperson felony. Each day any such violation continues shall be deemed a separate offense.</p> <p>55-1005. Disposal wells for salt brines and other oil field wastes; minimum depth; penalty.</p> <p>It shall be unlawful to use wells for the disposal of salt brines or other oil field wastes which do not meet the requirements for minimum depth established by the rules and regulations of the corporation commission. The state corporation commission shall inspect such wells to ascertain whether they meet such requirements for minimum depth. Any person, firm, partnership, association or corporation knowingly and willfully violating the provisions of this section, shall be deemed guilty of a severity level 9, nonperson felony. Each day of violation shall be considered to constitute a separate offense.</p>

	<p>82-3-602. TIME LIMITATION; PENALTY; CLOSURE OF PITS; CLOSURE FORMS; DRILLING FLUID MANAGEMENT; WASTE TRANSFER; SURFACE RESTORATION.</p> <p>(d) Drilling fluid management. (1) Each operator of a reserve pit shall report the chloride content of reserve pit fluids and the drilling fluid management plan to the appropriate district office within 48 hours after drilling operations cease. The chloride concentration shall be measured by a state certified laboratory or according to either of the following American petroleum institute fluid testing standards which are hereby adopted by reference: (A) "Recommended practice: standard procedure for field testing water-based drilling fluids," second edition, September 1997; and (B) "recommended practice: standard procedure for laboratory testing drilling fluids," sixth edition, May 2000. Alternately, the chloride concentration shall be measured by using another field or laboratory test approved by the commission. (2) Each operator of a reserve pit shall report the drilling fluid management methods utilized for the reserve pit on the affidavit of completion required by K.A.R. 82-3-130.</p> <p>(e) Waste transfer. Each pit operator shall notify the appropriate district office at least 24 hours before transferring pit waste according to subsection (b). Within 30 days after the transfer of the waste, each operator shall file a form prescribed by the commission with the conservation division reporting any transfer of pit waste from the lease.</p>
<p>Spills</p>	<p>82-3-603. SPILL NOTIFICATION AND CLEANUP; PENALTY; LEASE MAINTENANCE.</p> <p>(a) Escape of oil field fluids prohibited. No person shall permit saltwater, oil, or refuse from any well to escape by overflow, seepage, or other means from the vicinity of the well. Each operator shall keep this saltwater, oil, or refuse safely confined in tanks, pipelines, pits, or dikes to prevent the escape of these substances.</p> <p>(b) Notification: when required. (1) Threat to surface water or groundwater. Each operator shall notify the appropriate district office in accordance with subsection (c) immediately upon discovery or knowledge of any escape of saltwater, oil, or refuse that has or threatens to reach surface water or to impact groundwater. The operator shall take immediate action in accordance with procedures specified or approved by the district office to contain and prevent the saltwater, oil, or refuse from reaching surface water or impacting groundwater. (2) Timely notification of spills. Except as otherwise specified in this regulation, the operator shall notify the appropriate district of any escape of saltwater, oil, or refuse that meets the definition of "spill" in K.A.R. 82-3-101. This notification shall meet the requirements of subsection (c) and shall be made no later than the next business day following the date of discovery or knowledge of the spill. (3) Exception for minor leaks and drips. The notification requirement for spills in paragraph (b)(2) shall not apply to very minor amounts of saltwater, oil, or refuse, that unavoidably or unintentionally leak or drip from pumps, machinery, pipes, valves, fittings, or well rods or tubing during the conduct of normal prudent operations and that are not confined in dikes or pits or within the vicinity of the well. However, this exception shall not apply to ongoing, continual, or repeated leaks or drips, or to leaks or drips that are the result of intentional spillage or abnormal operations, including unrepaired or improperly maintained pumps, machinery, pipes, valves, and fittings. (4) "Discovery or knowledge" defined. For purposes of this regulation, the point of "discovery or knowledge" shall mean that point when the operator knew or reasonably should have known of the spill or escape.</p> <p>(c) Information required with notification. The notification requirement in subsection (b) shall include the following information: (1) The operator's name and license number; (2) the lease name and legal description and the approximate spill location; (3) the time and date the spill occurred; (4) a description of the escaped materials, including type and amount; (5) a description of the circumstances creating the spill; (6) the location of the spill with respect to the nearest fresh and usable water resources; (7) the proposed method for containing and cleaning up the spill; and (8) any other information that the commission may require.</p> <p>(d) Penalty for failure to notify. The notification requirement in subsection (b) shall apply even if the operator knows or believes that the appropriate district office is already aware of the spill or escape. The failure to comply with subsection (b) shall be punishable by a \$250 penalty for the first violation, a \$500 penalty for the second violation, and a \$1,000 penalty and an operator license review for the third violation.</p> <p>(e) Cleanup of spill or escape. (1) Reportable spill or escape. The operator shall clean up any spill or escape that requires notification under this regulation in accordance with the cleanup method approved by the appropriate district office. The cleanup techniques deemed appropriate and acceptable to the appropriate district office shall be physical removal, dilution, treatment, and bioremediation. Except as otherwise required by law or regulation, the operator shall complete the cleanup of the spill or escape within 10 days after discovery or knowledge of the spill or escape, or by the deadline prescribed in writing by the district office. (2) Other spills and escapes. The operator shall clean up all leaks, drips, and escapes that are excepted from notification under this regulation in accordance with cleanup techniques recognized as appropriate and acceptable by the commission. The cleanup techniques deemed appropriate and acceptable to the commission shall be physical removal, dilution, treatment, and bioremediation. This cleanup shall be accomplished upon completion of the routine operation or condition that caused the leak, drip, or escape or within 24 hours of discovery or knowledge of the leak, drip, or escape, whichever occurs sooner.</p> <p>(f) Penalties. Failure to contain and clean up the spill or escape in accordance with this regulation shall be punishable by a \$1,000 penalty for the first violation, a \$2,500 penalty for the second violation, and a \$5,000 penalty and an operator license review for the third violation.</p>

Kentucky		
Topic	Associated Forms	Regulations: http://www.lrc.ky.gov/kar/TITLE805.HTM
		Excerpted Text by Topic
Permitting	Application for Permit Casing and Cementing Plan as Required for Permit	Kentucky Revised Statutes 353.570 Permit required -- May authorize operation prior to issuance of permit. (1) No person shall drill or deepen a well, or reopen a plugged well for the production of oil or gas or for the injection of water, gas or other fluid into any oil or gas producing formation (except seismograph test holes) after June 16, 1960, or drill or deepen a water supply well, and geological or structure test holes after June 16, 1966, until such person shall obtain a permit from the department, except as provided in KRS 353.730. (2) When any applicant for a permit as required by this section has complied with the provisions of this chapter and all rules and regulations promulgated hereunder, the department shall issue the permit. 353.580 Expiration of permit -- Extensions. (1) Each permit issued under KRS 353.500 to 353.720 shall expire one (1) year after the date issued, unless the drilling, deepening, or reopening of a well is commenced pursuant thereto prior to the expiration of the one (1) year period. However, the permit term shall be extended by one (1) year if, prior to the expiration date, the permit applicant notifies the department in writing of the applicant's request for an extension, notifies the owner, record coal lessee, or mine licensee originally entitled to receive a copy of the plat under KRS 353.050, submits an affidavit stating that the information in the original permit application is still correct, and submits a fee for the extension in an amount equal to the permit fee required by KRS 353.590. With respect to permits issued prior to July 15, 2002, no extension shall be granted for any permit in cases where there has been a complete severance of the ownership of the oil and gas from the ownership of the surface to be disturbed, unless the requested extension is agreed to in writing by the surface owner.
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Affidavit of Well Log and Completion Report	Kentucky Administrative Regulations 805 KAR 1:020. Protection of fresh water zones. Section 2. Protection of Fresh Water Zones for Drilling and/or Plugging Operations. (1) During drilling operations, one (1) of the following methods shall be used to protect fresh water zones: (a) Method A. Casing shall be set on a casing shoulder and said casing shall have a shoe installed on the bottom of the bottom joint. Upon the completion of the drilling program, all the recoverable casing must be removed or cemented to the surface. (b) Method B. Casing shall be set on a shoulder and cemented sufficiently to cover 100 feet including the shoe. Upon completion of the drilling, all of the recoverable casing must be removed or cemented to the surface. (c) Method C. A top to bottom drilling mud system with a filtrate water loss of less than ten (10) cubic centimeters, as determined by American Petroleum Institute standards, in its publication "Standard Procedures for Field Testing Water Based Drilling Fluids" API RP 13B-1, Sections 1, 2 and 3, June 1, 1990, filed and incorporated herein by reference. Copies may be obtained from the Department for Natural Resources, P. O. Box 14090, Lexington, Kentucky 40512-4090. Certification of filtrate water loss must be made by the operator. Section 3. Protection of Fresh Water Zones. Any well drilled in the Commonwealth of Kentucky subject to the jurisdiction of the Department for Natural Resources subsequent to the effective date of this administrative regulation shall be equipped with the following fresh water protection prior to production or injection. (1) A protective string of casing, be it surface, intermediate, or long string, shall extend thirty (30) feet below the deepest known fresh water zone. Such protective string shall have cement circulated in the annular space outside said casing of a sufficient volume of cement, calculated using approved engineering methods, to assure the return of the cement to the surface. In the event cement does not return to the surface, every reasonable attempt will be made to fill the annular spaces by introducing cement from the surface. If the intermediate casing or long casing string is: (a) Cemented to the surface; or (b) Cemented thirty (30) feet into the next larger string of cemented casing in conformity with prescribed procedure, the string or combination of strings shall be considered as the fresh water protection. 805 KAR 1:130. Deep well administrative regulation relating to casing, cementing, plugging, gas detection and blow-out prevention. Section 2. When an application for a deep well permit is submitted to the department, the operator shall prepare a detailed drilling and casing plan on Form ED-7 for the review by and approval of the department. This casing and cementing form dated August 1, 1991 is filed and incorporated herein by reference. Copies of this form may be obtained from the Department for Natural Resources, P.O. Box 14090, Lexington, Kentucky 40512-4090, Monday through Friday, 8 a.m. to 4:30 p.m. This plan shall include the following: (1) A drafted schematic showing the hole size and depth of each casing string. The freshwater string shall be set at least thirty (30) feet below the depth recommended by the department; if fresh water is encountered during drilling operations deeper than such recommended depth, the freshwater casing shall be set at least thirty (30) feet below the actual freshwater depth. All freshwater casing strings shall be circulated when they are set before drilling commences. (2) A description of the type, size and grade of casing to be used and the manner in which the annulus of the casing string and well bore will be cemented to protect all fresh water, coal, mineral, and oil and gas producing formation in the area proposed for drilling. The volume, class, additives and weight of the cement to be used shall also be described. (3) If drilling fluid is used, it shall comply with 805 KAR 1:020, Section 2(1)(c).

Temporary Abandonment/ Shut- in Status	Temporary Abandonment Permit	<p>805 KAR 1:060. Plugging wells; noncoal-bearing strata.</p> <p>Section 1. Unless written permission shall be obtained from the department, no operator or owner shall permit any well drilled for oil, gas, salt water disposal or any other purpose in connection with the production of oil and gas, to remain unplugged after such well is no longer used for the purpose for which it was drilled or converted. However, nothing herein shall prevent the department, upon application and for good cause shown, from issuing a temporary permit, for a period not exceeding two (2) years, to an operator to leave a well unplugged, and nothing herein shall alter the provisions of KRS 353.170 relative to utilizing a well for the purpose of introducing air, gas, water or other liquid pressure into or upon the producing strata for the purpose of recovering oil and gas. The permission for temporary abandonment may be renewed at the end of the two (2) year period by reapplication. All wells on which a temporary abandonment permit has been issued shall be cased and capped in such a manner so as to protect all potential oil and/or gas zones and fresh water.</p> <p>Section 2. Before any work is commenced to plug and abandon any well the owner or operator thereof shall give notice to the department of his intention to abandon such well. Notice shall be given in the manner specified by the department. A duly authorized representative of the department may be present at the time and place specified to supervise the plugging of such well.</p>
Well Plugging	Affidavit to Time and Manner of Plugging and Filling Well	<p>805 KAR 1:060. Plugging wells; noncoal-bearing strata.</p> <p>Section 3. Wells not drilled through coal-bearing strata may be plugged as follows:</p> <p>(1) The bottom of the hole shall be filled to the top of each producing formation, or a bridge shall be placed at the top of each producing formation, and in either event a cement plug not less than fifteen (15) feet in length shall be placed immediately above each producing formation whenever possible.</p> <p>(2) A cement plug not less than fifteen (15) feet in length shall be placed immediately below all fresh water bearing strata.</p> <p>(3) A plug shall be placed at the surface of the ground in each hole plugged in such a manner as not to interfere with soil cultivation.</p> <p>(4) An uncased rotary hole drilled with the aid of liquid shall be plugged with approved heavy mud up to the base of the surface string at which point a plug of not less than fifteen (15) feet of cement shall be placed. The hole shall also be capped similar to other abandoned holes.</p> <p>(5) Any well in which casing has been cemented from surface to total depth and no casing can be pulled may be plugged as follows: The bottom of the hole shall be filled to the top of the producing formation and a cement plug not less than fifteen (15) feet in length shall be placed above this fill. A surface plug shall be placed as provided in subsection (3) of this section. No intermediate plugs will be required.</p> <p>(6) The operator shall have the option as to the method of placing cement in the hole by:</p> <ul style="list-style-type: none"> (a) Dumb bailer; (b) Pumping through tubing; (c) Pump and plug; or (d) Other method approved by the director.
Tanks		<p>401 KAR 5:037. Groundwater protection plans.</p> <p>Section 3. Preparation of Groundwater Protection Plans.</p> <p>(1) General requirements. A groundwater protection plan establishes a series of practices to be followed by the person required to prepare and to implement it. The practices established by a groundwater protection plan shall be designed and implemented in a manner that will prevent groundwater pollution. This section describes the contents of site-specific and generic groundwater protection plans. Any person conducting an activity identified in Section 2(2) of this administrative regulation shall determine if an exclusion of Section 2(3) or (4) of this administrative regulation applies to that activity.</p> <p>(5) Specific practices. In selecting practices to protect groundwater for the activities identified in Section 2(2) of this administrative regulation and not excluded by Section 2(3) or (4) of this administrative regulation any person preparing a groundwater protection plan shall consider the nature of the pollutant and the hydrogeologic characteristics at or near the location of the activity and shall comply with the provisions of this subsection in selecting those practices:</p> <p>(d) Tanks and sumps. Any person using a tank or sump shall prepare and implement good housekeeping practices, operating procedures, operator training, and spill response procedures. In addition, any person using a tank or sump shall consider leak control devices, secondary containment, integrity testing, mechanical inspections, and overflow protection devices. Additional containment is not required for sumps and tanks that are used solely to provide secondary containment.</p> <p><i>Editors Note: Tanks, Pits, Exempt Waste Handling and Spills are regulated by the Department for Environmental Protection. The following is a link to the Kentucky Administrative Regulations for the DEP http://www.lrc.ky.gov/kar/TITLE401.HTM</i></p>
Pits		<p>401 KAR 5:090. Control of water pollution from oil and gas facilities.</p> <p>Section 4. Registration. (1) All operators shall register their facilities with the division using a form approved by the director containing name of operation, location of lease, oil and produced water production rates, method of produced water disposal, and other necessary information. The operator shall register each tank battery with associated wells, pits, and other similar structures as one (1) facility. Those facilities not associated with a tank battery shall be registered individually.</p> <p>Section 9. Holding Pits. (1) Applicability. The provisions of this section apply to the operators of holding pits which are constructed after the effective date of this administrative regulation, and to the operators of existing pits that are incapable of demonstrating pursuant to Section 7 of this administrative regulation that those pits do not contaminate surface or groundwaters.</p> <p>(2) Exemption. Spill Prevention Control and Countermeasure (SPCC) pits developed pursuant to Section 13 of this administrative regulation are exempted from the requirements of this section.</p> <p>(3) General requirements. Operators of holding pits shall supplement the registration form required under Section 4 of this administrative regulation with information regarding the construction and operation of any holding pit and any other information deemed necessary by the director. This information shall be submitted to the director on forms provided by the director not less than thirty (30) days prior to the date the permit is desired.</p> <p>(4) Permits. The director will issue permits to operators of holding pits to contain any condition necessary to satisfy any requirement of this administrative regulation notwithstanding any less stringent provision of the law to the contrary.</p>

		<p>(5) Conditions applicable to holding pits.</p> <p>(a) Construction requirements.</p> <ol style="list-style-type: none"> 1. Holding pits shall be constructed in accordance with KRS Chapter 151 and Division of Waste Management administrative regulation 401 KAR 30:030. 2. Holding pits shall be constructed with an impermeable synthetic liner having a minimum thickness of twenty (20) mils or equivalent as approved by the director. 3. Holding pits shall be designed with a continuous bermed area at least two (2) feet above ground level. <p>(b) Operating requirements.</p> <ol style="list-style-type: none"> 1. No holding pit shall discharge produced water into waters of the Commonwealth except in accordance with a KPDES permit, nor shall any holding pit be used for the ultimate disposal of produced waters. 2. All surface water shall be diverted away from the holding pit so that the holding pit shall have no additional drainage area. 3. Waste shall be removed from the holding pit to maintain a one (1) foot minimum feeboard. Disposal of wastes shall be in accordance with Kentucky laws and administrative regulations. <p>(c) Closure requirements.</p> <ol style="list-style-type: none"> 1. Except as provided in subsection (2) of this section, any holding pit no longer used for the purpose for which it was intended shall be backfilled, graded, and revegetated. The vegetative cover shall be capable of stabilizing the soil surface from erosion. This closure shall be conducted within the time period specified in the permit issued pursuant to subsection (3) of this section. 2. A holding pit may remain as a permanent structure or be used for other purposes upon written approval from the director. 3. Disposal of all wastes shall be in accordance with Kentucky laws and administrative regulations. <p>(6) A tank, of a size and type approved by the director, may be used in lieu of a holding pit.</p> <p>Section 10. Drilling Pits. Facilities shall be constructed for the collection of fluids, other than produced water, associated with well construction, acidizing and chemically enhanced recovery in areas where waters of the Commonwealth may be affected. If the life of the facilities is longer than thirty (30) days following completion of exploration or drilling activities they shall meet all requirements of Section 9 of this administrative regulation. Upon written request, the director may, with good cause, extend the allowable life of the facility to a maximum ninety (90) days if the extension will not cause or contribute to contamination of waters of the Commonwealth. The closure requirements for these facilities shall be as specified in Section 9(5)(c) of this administrative regulation.</p> <p>401 KAR 5:037. Groundwater protection plans.</p> <p>(5) Specific practices. In selecting practices to protect groundwater for the activities identified in Section 2(2) of this administrative regulation and not excluded by Section 2(3) or (4) of this administrative regulation any person preparing a groundwater protection plan shall consider the nature of the pollutant and the hydrogeologic characteristics at or near the location of the activity and shall comply with the provisions of this subsection in selecting those practices:</p> <p>(e) New surface impoundments, lagoons, pits or ditches. Any person who constructs a new surface impoundment, lagoon, pit or ditch which will contain a pollutant shall evaluate the site's hydrogeology and shall design and operate it to minimize discharges to soil. However, soils may be used to construct liners under appropriate conditions. All necessary and appropriate measures shall be taken to prevent groundwater pollution. The person shall consider the use of liners, secondary containment, leak detection devices, and other appropriate and effective control systems. Additional containment is not required for new surface impoundments, lagoons, pits, and ditches that are used solely to provide secondary containment.</p>
Exempt Waste Handling		<p>Kentucky Revised Statutes 224.50-760 Special wastes.</p> <p>(1) (a) For purposes of this section and KRS 224.46-580(7), special wastes are those wastes of high volume and low hazard which include but are not limited to mining wastes, utility wastes (fly ash, bottom ash, scrubber sludge), sludge from water treatment facilities and wastewater treatment facilities, cement kiln dust, gas and oil drilling muds, and oil production brines. Other wastes may be designated special wastes by the cabinet;</p> <p>(b) Disposal sites or facilities for special wastes shall be exempt from the provisions of KRS 224.46-520 and the provisions of KRS 224.43-810, 224.43-815, and KRS 224.46-820 to 224.46-870 but may be regulated by the cabinet consistent with the Resource Conservation and Recovery Act of 1976, as amended (Pub. L. 94-580), and regulations issued pursuant thereto, unless the special waste received is listed or meets the criteria of a hazardous waste in regulations pursuant to KRS 224.46-510(3). If the special waste is a hazardous waste as specified in regulations pursuant to KRS 224.46-510(3), the site or facility shall be required by the cabinet to comply with the provisions of KRS 224.46-520 but shall not be subject to the requirements of KRS 224.40-310(6);</p> <p>(c) Generators of special wastes shall register with the cabinet and be subject to the provisions of KRS 224.46-510, except for generators of coal mining wastes which shall be regulated pursuant to the provisions of KRS Chapter 350</p> <p>(2) Generators of waste oil shall be exempt from the provisions of KRS 224.46-510 and 224.46-520 so long as waste oil is not specified as a hazardous waste in regulations pursuant to KRS 224.46-510(3) but may be regulated by the cabinet consistent with the Resource Conservation and Recovery Act of 1976, as amended (Pub. L. 94- 580), and regulations issued pursuant thereto.</p>
Spills		<p>Kentucky Administrative Regulations 401 KAR 5:090. Control of water pollution from oil and gas facilities.</p> <p>Section 13. Spills and Leaks. (1) General provision. Operators of facilities shall develop and implement Spill Prevention Control and Countermeasure (SPCC) plans when required under 40 CFR Part 112.</p> <p>(2) Reporting.</p> <p>(a) Operators shall report to the division all spills and bypasses of oil and produced water from facilities in accordance with 401 KAR 5:015.</p> <p>(b) Operators shall report all spills, discharges and bypasses of oil from a facility in accordance with the procedures in 40 CFR Part 110.</p> <p>Kentucky Revised Statutes</p>

224.70-110 General prohibition against water pollution.

No person shall, directly or indirectly, throw, drain, run or otherwise discharge into any of the waters of the Commonwealth, or cause, permit or suffer to be thrown, drained, run or otherwise discharged into such waters any pollutant, or any substance that shall cause or contribute to the pollution of the waters of the Commonwealth in contravention of the standards adopted by the cabinet or in contravention of any of the rules, regulations, permits, or orders of the cabinet or in contravention of any of the provisions of this chapter.

224.01-400 Reportable quantities and release notification requirements for hazardous substances, pollutants, or contaminants -- Variation of requirements by administrative regulations -- Emergency plan -- Powers of cabinet -- Remedial action to restore environment -- Lien of cabinet for costs of cleanup -- Liability of financial institution acquiring property or serving as fiduciary.

(2) The cabinet may promulgate administrative regulations in accordance with the provisions of KRS Chapter 13A designating individual hazardous substances, pollutants, or contaminants; establishing their respective reportable quantities; and establishing their respective release notification requirements, which differ from those designated or established in subsections (3) to (9) of this section, if necessary to:

- (a) Protect human health and the environment;
- (b) Maintain consistency with valid scientific development; or
- (c) Maintain consistency with newly adopted federal regulations.

(18) Any person possessing or controlling a hazardous substance, pollutant, or contaminant which is released to the environment, or any person who caused a release to the environment of a hazardous substance, pollutant, or contaminant, shall characterize the extent of the release as necessary to determine the effect of the release on the environment, and shall take actions necessary to correct the effect of the release on the environment. Any person required to take action under this subsection shall have the following options:

- (a) Demonstrating that no action is necessary to protect human health, safety, and the environment;
- (b) Managing the release in a manner that controls and minimizes the harmful effects of the release and protects human health, safety, and the environment, provided that the management may include any existing or proposed engineering or institutional controls and the maintenance of those controls;
- (c) Restoring the environment through the removal of the hazardous substance, pollutant, or contaminant; or
- (d) Any combination of paragraphs (a) to (c) of this subsection.

224.01-405 Corrective action for release of petroleum or petroleum product from a source other than a petroleum storage tank.

(1) In the event of a release to the environment of petroleum or a petroleum product from a source other than a petroleum storage tank, any person who owns or operates the source from which the release occurred or any person who caused the release shall characterize the extent of the release as necessary to determine the effect of the release on the environment and shall perform corrective action. "Corrective action" means those actions necessary to protect human health, safety, and the environment in the event of a release of petroleum or petroleum product from a source other than a petroleum storage tank. "Corrective action" includes remedial actions to clean up contaminated groundwater, surface waters, sediments, and soil; actions to address residual effects after initial corrective action is taken; and actions taken to restore or replace potable water supplies. "Corrective action" also includes actions necessary to monitor, assess, and evaluate a release, as well as actions necessary to monitor, assess, and evaluate the effectiveness of remedial action after a release has occurred.

Louisiana		
Topic	<u>Associated Forms</u>	Regulations: <u>http://www.doa.louisiana.gov/osr/lac/43v19/43v19.doc</u>
Permitting	<p>Application for Permit to Drill for Minerals, Form MD-10-R-1</p> <p>Application to Amend Permit to Drill for Minerals, Form MD-10-R-AO</p>	<p>Excerpted Text by Topic</p> <p>§103. Application to Drill</p> <p>A. All applications for permits to drill wells for oil or gas or core test wells below the fresh water sands shall be made on Form MD-10-R or revisions thereof, and mailed or delivered to the district office. These applications, in duplicate, shall be accompanied by three copies of the location plat, preferably drawn to a scale of 500 feet to the inch. The plats shall be constructed from data compiled by a registered civil engineer or surveyor and shall definitely show the amount and location of the acreage with reference to quarter-section corners, or other established survey points. There shall also be shown all pertinent lease and property lines, leases and offset wells. When the tract to be drilled is composed of separately-owned interests which have been pooled or unitized, the boundaries to and the acreage in each separately-owned interest must be indicated. Plats must have well locations certifications either written on or attached to the well location plats and this certification must be signed by a registered civil engineer, qualified surveyor or a qualified engineer regularly employed by the applicant. If possible the application card shall give the name and address of the drilling contractor, otherwise the information, as soon as determined, shall be supplied by letter to the district manager.</p> <p>B. When dual completion applications are granted, each well shall be considered as two wells. The production from each sand shall be run through separate lead lines and the production from each sand shall be measurable separately. The department's agent shall designate suitable suffixes to the well number which will serve as reference to each producing sand.</p> <p>C. No well shall be drilled, nor shall the drilling of a well be commenced, before a permit for such well has been issued by the Department of Conservation; furthermore, any work, such as digging pits, erecting buildings, derricks, etc., which the operator may do or have done, will be done at his own risk and with the full understanding that the Department of Conservation may find it necessary to change the location or deny the permit because of the rules and regulations applying in that instance.</p> <p>§105. All Other Applications</p> <p>A. All applications for permits to repair (except ordinary maintenance operations), abandon (plug and abandon), acidize, deepen, perforate, perforate and squeeze, plug (plug back), plug and perforate, plug back and side-track, plug and squeeze, pull casing, side-track, squeeze, squeeze and perforate, workover, cement casing or liner as workover feature, or when a well is to be killed or directionally drilled, shall be made to the district office on Form MD-11-R and a proper permit shall be received from the district manager before work is started. A description of the work done under the above recited work permits shall be furnished on the reverse side of the Well History and Work Resume Report (Form WH), which form shall be filed with the district office of the Department of Conservation in which the well is located within 20 days after the completion or recompletion of the well. At least 12 hours prior notice of the proposed operations shall be given the district manager and/or an offset operator in order that one of them may witness the work. If the district manager fails to appear within 12 hours, the work may be witnessed by the offset operator, but failing in this, the work need not be held up longer than 12 hours. This rule shall not deter an operator from taking immediate action in an emergency to prevent damage.</p> <p>B. When a service company, other than the drilling contractor, cements, perforates or acidizes, either before or after completion of a well, the service company shall furnish the district manager with legible exact copies of reports furnished the owner of the well.</p>
Well Treatment, Stimulation and Fracturing	Well History and Work Resume Report, Form WH-1	<i>Editors Note: See 105 All Other Applications under the Permitting topic regarding authorization</i>
Well Construction	<p>Well Completion or Recompletion Report, Form COMP</p> <p>Well History and Work Resume Report, Form WH-1</p> <p>Affidavit of Test of Casing in Well, Form CSG-T</p>	<p>§109. Casing Program</p> <p>A. Conductor Pipe. Conductor pipe is that pipe ordinarily used for the purpose of supporting unconsolidated surface deposits. The use and removal of conductor pipe during the drilling of any oil and gas well shall be at the option of the operator.</p> <p>B. Surface Casing</p> <p style="padding-left: 20px;">1. Where no danger of pollution of fresh water sources exists, the minimum amount of surface of first intermediate casing to be set shall be determined from Table 1 hereof.</p> <p>Table 1</p>

Total Depth of Contact	Casing Required	Number of Sacks Cement	Surface Casing Test Pressure (lbs. per sq. in)
0-2500	100	200 or *Circulate to surface	300
2500-3000	150	500	600
3000-4000	300	500	600
4000-5000	400	500	600
5000-6000	500	500	750
6000-7000	800	500	1000
7000-8000	1000	500	1000
8000-9000	1400	500	1000
9000-Deeper	1800	500	1000

*Circulate to the Surface shall mean the calculated amount of cement necessary to fill the theoretical annular space plus 10 percent.

a. In known low-pressure areas, exceptions to the above may be granted by the commissioner or his agent. If, however, in the opinion of the commissioner, or his agent, the above regulations shall be found inadequate, and additional or lesser amount of surface casing and/or cement or test pressure shall be required for the purpose of safety and the protection of fresh water sands.

2. Surface casing shall be tested before drilling the plug by applying a minimum pump pressure as set forth in Table 1 after at least 200 feet of the mud-laden fluid has been displaced with water at the top of the column. If at the end of 30 minutes the pressure gauge shows a drop of 10 percent of test pressure as outlined in Table 1, the operator shall be required to take such corrective measures as will insure that such surface casing will hold said pressure for 30 minutes without a drop of more than 10 percent of the test pressure. The provisions of Paragraph D.7, below, for the producing casing, shall also apply to the surface casing.

3. Cement shall be allowed to stand a minimum of 12 hours under pressure before initiating test or drilling plug. Under pressure is complied with if one float valve is used or if pressure is held otherwise.

C. Intermediate Casing

1. Intermediate casing is that casing used as protection against caving of heaving formations or when other means are not adequate for the purpose of segregating upper oil, gas or water-bearing strata.

2. If an intermediate casing string is deemed necessary by the district manager for the prevention of underground waste, such regulations pertaining to a minimum setting depth, quality of casing, and cementing and testing of sand, shall be determined by the department after due hearing. The provisions of Paragraph D.7 below, for the producing casing, shall also apply to the intermediate casing.

D. Producing Oil String

1. Producing or oil string is that casing used for the purpose of segregating the horizon from which production is obtained and affording a means of communication between such horizons and the surface.

2. The producing string of casing shall consist of new or reconditioned casing, tested at mill test pressure or as otherwise designated by the department and set at a sufficient depth to cut off all gas formations above the oil saturated horizon in which the well is to be completed. The position of the oil horizon shall be determined by coring, testing or electrical logging, or other satisfactory method, and the producing string of casing shall be bottomed and cemented at a point below the gas/oil contact if determinable and practicable.

3. Cement shall be by the pump-and-plug method, or another method approved by the department. Sufficient cement shall be used to fill the calculated annular space behind the casing to such a point, as in the opinion of the district manager, local conditions require to protect the producing formations and all other oil and gas formations occurring above, but in every case, no less cement shall be used than the calculated amount necessary to fill the annular space to a point 500 feet above the shoe.

4. The amount of cement to be left remaining in the casing, until the requirements of Paragraph 5 below have been met, shall be not less than 20 feet. This shall be accomplished through the use of a float-collar, or other approved or practicable means, unless a full-hole cementer, or its equivalent, is used.

5. Cement shall be allowed to stand a minimum of 12 hours under pressure and a minimum total of 24 hours before initiating test or drill plug in the producing or oil string. Under pressure is complied with if one or more float valves are employed and are shown to be holding the cement in place, or when other means of holding pressure is used. When an operator elects to perforate and squeeze or to cement around the shoe, he may proceed with such work after 12 hours have elapsed after placing the first cement.

6. Before drilling the plug in the producing string of casing, the casing shall be tested by pump pressure, as determined from Table 2 hereof, after 200 feet of mud-laden fluid in the casing has been displaced by water at the top of the column.

Table 2. Intermediate and Producing Casing String Pressure

Depth Set	*No. of Sacks of Cement	Producing Test (lbs. per sq. in.)
2000-3000	200	800
3000-6000	300	1000
6000-9000	500	1200
9000- and deeper	500	1500

*But in every case no less cement shall be used than the calculated amount necessary to fill the annular space to a point 500 feet above the shoe.

a. If at the end of 30 minutes the pressure gauge shows a drop of 10 percent of the test pressure or more, the operator shall be required to take such corrective measures as will insure that the producing string of casing is so set and cemented that it will hold said pressure for 30 minutes without a drop of more than 10 percent of the test pressure on the gauge.

7. If the commissioner's agent is not present at the time designated by the operator for inspection of the casing tests of the producing string, the operator shall have such tests witnessed, preferably by an offset operator. An affidavit of test, on the form prescribed by the Department of Conservation, signed

		<p>by the operator and witness, shall be furnished to the district office of the Department of Conservation showing that the test conformed satisfactorily to the above mentioned regulations before proceeding with the completion. If test is satisfactory, normal operations may be resumed immediately.</p> <p>8. If the test is unsatisfactory, the operator shall not proceed with the completion of the well until a satisfactory test has been obtained.</p> <p>E. Tubing and Completion</p> <p>1. A valve, or its equivalent, tested to a pressure of not less than the calculated bottomhole pressure of the well, shall be installed below any and all tubing outlet connections.</p> <p>2. When a well develops a casing pressure, upon completion, equivalent to more than three-quarters of the internal pressure that will develop the minimum yield point of the casing, such well shall be required by the district manager to be killed, and a tubing packer to be set so as to keep such excessive pressure of the casing.</p> <p>F. Wellhead Connections. Wellhead connections shall be tested prior to installation at a pressure indicated by the district manager in conformance with conditions existing in areas in which they are used. Whenever such tests are made in the field, they shall be witnessed by an agent of the department. Tubing and tubingheads shall be free from obstructions in wells used for bottomhole pressure test purposes.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Oil Well Potential Report, Form DM1-R</p> <p>Gas Well Deliverability Test, Form DT-1</p>	<p>§137. Plugging and Abandonment</p> <p>A. Schedule of Abandonment</p> <p>1. Dry Holes. All wells drilled for oil or gas and found to be dry prior to or after the effective date of this order shall be plugged within 90 days after operations have been completed thereon or 90 days after the effective date of this order, whichever is later, unless an extension of time is granted by the Commissioner of Conservation.</p> <p>2. Other Wells on or after Effective Date of Order</p> <p>a. All wells wherein production operations or use as a service well have ceased on or after the effective date of this order shall continue to be reported on the Form DM-1-R or Form DT-1 with the appropriate notation that the well is off production or no longer in use as a service well along with the date of last production or date the service well ceased to be used; and, after six months, if such a well has not been restored to production or use as a service well, it shall thereafter be reported by the operator on the semiannual Inactive Well Report, Form INACT WR-1 (1974) which report shall be filed with the Department of Conservation showing the status of such well as of April 1 and October 1 of each year (report to be filed no later than April 25 and October 25). Such wells shall continue to be reported on the Form DM1-R or Form DT-1 showing the date of last production or the date the well ceased to be used as a service well, together with a notation showing the well is carried on the Form INACT WR-1 (1974), Inactive Well Report, until the well is plugged and abandoned.</p> <p>b. The Inactive Well Report shall list the field, well name, well number and other pertinent data and provide an appropriate column to classify such well as having either (1) future utility, or (2) no future utility. If the well is classified as having future utility, operator shall specify such utility by completing the appropriate column on the form. Wells so classified shall be reviewed periodically by the district manager who, at his discretion, may require an operator to supply additional information to justify the classification.</p> <p>c. All such wells classified on the Inactive Well Report by either the operator or the district manager as having no future utility shall be plugged within 90 days from the date of such classification unless any such well is included in a Schedule of Abandonment approved or promulgated by the Commissioner of Conservation or an extension of time is otherwise granted by the Commissioner of Conservation. The date any Schedule of Abandonment is approved or promulgated or an extension of time expires shall be shown in the appropriate column on the form.</p> <p>3. Other Wells Prior to Effective Date of Order</p> <p>a. All wells wherein production operations or use as a service well have ceased prior to the effective date of this order shall continue to be reported on the Form DM-1-R or Form DT-1 with the appropriate notation that the well is off production or no longer in use as a service well along with the date of last production or date the service well ceased to be used; and, after six months from the effective date of this order is such a well has not been restored to production or use as a service well it shall thereafter be reported, classified and subject to review in the same manner provided for in the preceding Subparagraph b except as hereinafter otherwise provided.</p> <p>b. A well classified on the Inactive Well Report by either the operator or the district manager as having no future utility shall not be required to be plugged within a specified period of time but will be plugged in accordance with a Schedule of Abandonment submitted by the operator and approved or otherwise promulgated by the Commissioner of Conservation.</p> <p>4. Schedule of Abandonment. A Schedule of Abandonment submitted in accordance with Subparagraph 2.b or 3.b above shall include a schedule or program for the orderly plugging of wells which should be consistent with prudent operating practices and take into account any economic considerations and other circumstances which would affect such a program of plugging wells. Any Schedule of Abandonment approved or promulgated by the Commissioner of Conservation shall be followed unless modified by the operator with approval of the commissioner. Reference to the approved Schedule of Abandonment shall be made on the Inactive Well Report for each well which is included in such a program and has not yet been plugged.</p> <p>5. Administrative Interpretation. For purposes of administering the heretofore mentioned Paragraphs, it is understood that:</p> <p>a. a wellbore which is completed in more than one common source of supply (multiple completions) shall not be considered as ceasing to produce and shall not be reported on the Inactive Well Report as long as there is production from or operations in any completion in the wellbore;</p> <p>b. wells classified as having future utility may be off production or shut-in but are considered to have future utility for producing oil or gas for use as a service well;</p> <p>c. no completion with a transferred allowable credit will be carried on the Inactive Well Report.</p>
<p>Well Plugging</p>	<p>Plug and Abandon Report, Form P&A</p> <p>Well History and Work Resume Report, Form WH-1</p>	<p>§137. Plugging and Abandonment</p> <p>F. Plugging Procedures</p> <p>1. Notification of intention to plug any well or wells over which the Commissioner of Conservation has jurisdiction, shall be given to the appropriate district manager prior to the plugging thereof. Notification shall be made in writing to the district office in the form of a WORK PERMIT (Form DM-4 Rev.) for which an original and three copies are required. Where plugging involves a well with a rig on location, the district manager may grant verbal approval to plug and abandon the well provided the work permit is subsequently submitted. Any operator who fails to comply with this requirement may be required by the district manager to place additional cement plug(s) and/or prove the plug(s) are placed as the operator states they are.</p> <p>2. Once an operator has been issued a work permit to plug and abandon a well by the appropriate district manager, then said operator shall be required to contact the appropriate oil and gas inspector a minimum of 12 hours prior to beginning the plugging operations. During drilling and/or workover</p>

		<p>operations, the requirement to contact the appropriate oil and gas inspector a minimum of 12 hours prior to beginning the plugging operations shall be waived at the time verbal notification is made to the district office.</p> <p>3. In plugging wells, it is essential that all oil or gas bearing formations be protected.</p> <p>a. Sufficient cement shall be used to adequately isolate each perforated pool, one from the other. A cement plug of at least 100 feet shall be placed immediately above or across the uppermost perforated interval of the pool. If he deems it advisable, the district manager may allow a bridge plug with a minimum of 10 feet of cement on top to be placed immediately above each producing pool.</p> <p>b. In wells completed with screen or perforated liners, if it is impractical for the operator to remove the screen or perforated liner, he shall place a cement plug of at least 100 feet with the bottom as near as practical to the top of the screen or liner. If the district manager deems it advisable, a bridge plug with a minimum of 10 feet of cement on top and placed as near as practical to the top of the screen or liner may be used in lieu of the cement plug.</p> <p>c. When production casing is not run or is removed from the well, a cement plug of at least 100 feet shall be placed from at least 50 feet below the shoe of the surface casing to at least 50 feet above. In lieu of the above, the operator shall have the option of using a cement retainer placed at least 50 feet above the surface casing shoe and a sufficient amount of cement shall be squeezed below the retainer to form a cement plug from the base of the retainer to 50 feet below the base of the surface casing. A 10-foot cement plug shall be placed on top of the retainer.</p> <p>d. If fresh-water horizons are exposed when production casing is removed from the well, or as a result of production casing not being run, a cement plug shall be placed from at least 100 feet below the base of the deepest fresh-water sand to at least 150 feet above the base of the sand. A cement plug of at least 100 feet shall also be placed from at least 50 feet below the shoe of the surface casing to at least 50 feet above it. In lieu of the above, the operator shall have the option of using a cement retainer placed at least 50 feet above the surface casing shoe and a sufficient amount of cement shall be squeezed below the retainer to form a cement plug from the base of the retainer to 50 feet below the base of the surface casing. A 10-foot cement plug shall be placed on top of the retainer.</p> <p>e. The setting and location of the first plug below the top 30-foot plug shall be verified by tagging. In the event a retainer is used, tagging will not be necessary.</p> <p>f. Additional cement plugs shall be placed to adequately contain any high pressure oil, gas or water sands or as may be required by the district manager.</p> <p>g. A 30-foot cement plug minimum shall be placed in the top of the well.</p> <p>h. Mud laden fluid of not less than 9 pounds per gallon shall be placed in all portions of the well not filled with cement, unless otherwise approved by the district manager.</p> <p>i. All cement plugs shall be placed by the circulation or pump down method unless otherwise authorized by the district manager. The hole must be in a static condition at the time the plugs are placed.</p> <p>j. After placing the top plug, the operator shall be required on all land locations to cut the casing a minimum of two feet below plow depth. On all water locations, the casing shall be cut a minimum of 10 feet below the mud line. If an operator contemplates reentering the well at some future date for saltwater disposal or other purpose, the district manager may approve after receiving written request from an operator not to cut off the casing below plow depth or mud line.</p>
Tanks		<p>§115. Fire Hazards</p> <p>C. 1. Each permanent oil tank or battery of tanks that are located within the corporate limits of any city, town or village, or where such tanks are closer than 500 feet to any highway or inhabited dwelling or closer than 1000 feet to any school or church, or where such tanks are so located as to be deemed a hazard by the Commissioner of Conservation, must be surrounded by a dike (or firewall) or retaining wall of at least the capacity of such tank or battery of tanks, with the exception of such areas where such dikes (or firewalls) or retaining walls would be impossible such as in water areas. At the discretion of the Commissioner of Conservation, firewalls of 100 percent capacity can be required where other conditions or circumstances warrant their construction.</p> <p>2. In water, swamp or marsh areas, where the building of firewalls is impossible or impracticable, in the future, permanent tanks shall be placed on an impervious platform surrounded by a metal gutter to catch all the oil and other wastes which may cause either a fire-hazard or pollution. A sump shall be provided to catch the run-off from the gutters; however, if the operator or company has devised a plan which serves the same purpose, the district manager may after being presented with the plan, waive the above requirements.</p> <p>3. Tanks not falling in the above categories (Paragraphs 1 and 2) must be surrounded by a retaining wall, or must be suitably ditched to a collecting sump, each of sufficient capacity to contain the spillage and prevent pollution of the surrounding areas.</p>
Pits	E & P Waste Containment Structure Notification, Form ENG-15	<p>Chapter 3. Pollution Control Onsite Storage, Treatment and Disposal of Nonhazardous Oilfield Waste (NOW) Generated from the Drilling and Production of Oil and Gas Wells (Oilfield Pit Regulations)</p> <p>§303. General Requirements</p> <p>A. Produced water generated from the drilling and production of oil and gas wells shall be disposed of into subsurface formations not productive of hydrocarbons, unless discharged or disposed of according to the provisions of §303.E or transported offsite in accordance with LAC 43:XIX, Subpart 1, Chapter 5.</p> <p>B. Produced water may be disposed of by subsurface injection into legally permitted or authorized operators saltwater disposal wells, commercial saltwater disposal wells, enhanced recovery injection wells, community saltwater disposal wells, or gas plant disposal wells. The use of hydrocarbon storage brine and mining water in storage and/or mining operations is not considered to be disposal.</p> <p>C. Contamination of a groundwater aquifer or a USDW with NOW is strictly prohibited. In addition, the injection of NOW into a groundwater aquifer or a USDW is strictly prohibited.</p> <p>D. Produced water and other NOW generated in the drilling and production of oil and gas wells shall not be disposed of into a zone producing or productive of hydrocarbons unless such disposal is approved by the Office of Conservation after a public hearing or unless prior approval to use the proposed zone for such disposal can be documented.</p> <p>E. The discharge of produced water or other NOW (including drilled solids) into manmade or natural drainage or directly into state waters is allowed only in</p>

conformance with any applicable state or federal discharge regulatory program.

F. The use of closed NOW storage systems is encouraged by the Office of Conservation; therefore, the use of new or existing pits to store produced water, drilling fluids, and other NOW generated from the drilling and production of oil and gas wells is prohibited unless:

1. notification for each pit is submitted to the Office of Conservation as outlined in §305; and
2. pits are in conformance with standards set forth in §307.

G. Unless exempted from liner requirements in §303.K.8 or §303.M below, all existing produced water pits, onshore terminal pits, and washout pits which are to be utilized in the operation of oil and gas or other facilities must be shown to comply with the liner requirements of §307.A.1.a or be permanently closed in accordance with the pit closure criteria of §311 and §313 by January 20, 1989. A certification attesting to compliance with these requirements shall be submitted to this office in a timely manner.

H. All existing pits which are not to be utilized in the operation of oil and gas or other facilities must be permanently closed according to the requirements of §311 and §313 by January 20, 1989. A certification attesting to compliance with these requirements shall be submitted to this office in a timely manner.

I. Operators of existing pits are required to comply with all applicable operational requirements of §307.A.2 and 4, §307.B.1, 2, and 3, §307.C.2, 4, 5, and 6, §307.D.2, 4, and 5, §307.E.1, 3, 4, and 6, and §307.F.1 and 3.

J. Production pits, except for those identified in §303.K.1 and §303.M below, may not be constructed in a "V" or A zone as determined by flood hazard boundary or rate maps and other information published by the Federal Emergency Management Agency (FEMA), unless such pits have levees which have been built at least 1 foot above the 100-year flood level and able to withstand the predicted velocity of the 100-year flood. Location, construction and use of such pits is discouraged.

K. Production pits located in the coastal area shall be subject to the following requirements.

1. Except for exempt pits, no production pit may be constructed in the coastal area after June 30, 1989.
2. Production pits located in the coastal area shall be closed in compliance with §311 and §313 by January 1, 1993 with the following exceptions:
 - a. exempt pits as such term is defined in §301;
 - b. any onshore terminal pit that was in existence on June 30, 1989, provided such pit has an approved Louisiana Water Discharge Permit System (LWDPS) permit applicable thereto. Upon expiration of such permit, operator shall discontinue use of said pit and comply with the provisions of §307;
 - c. any production pit which is subject to an approved Louisiana Water Discharge Permit System (LWDPS) permit is not subject to the closure requirements of §311 and §313 until January 1, 1995 or until expiration of such permit which ever occurs first. Upon expiration of such permit, operator shall discontinue use of said pit and comply with the provisions of §307.
3. Operators of existing production pits located in the coastal area shall submit Form UIC-15-CP to the Office of Conservation by January 1, 1991. Pits closed prior to October 20, 1990 are not considered existing pits for purposes hereof.
4. Operators intending to construct an exempt pit shall submit Form UIC-15-CP to the Office of Conservation at least 10 days prior to start of construction thereof.
5. Production pits located within the coastal area must maintain a levee with an elevation of at least two feet above mean high tide, the liquid level in pit(s) shall not be permitted to rise within two feet of top of pit levee or walls, and any surface water discharge from an active pit must be done in accordance with appropriate state or federal regulatory programs. Such discharge must be piped to open water (within the marsh) that receives good flushing action and shall not otherwise significantly increase the salinity of the receiving body of water or marsh. Further, unless otherwise indicated in §303.K.6,7,8 and 9, production pits located in the coastal area shall comply with the standards and operational requirements set forth in §307.
6. Burn pits, compressor station pits, natural gas processing plant pits, and well test pits located in the coastal area are exempt from the liner requirements of §307.A.
7. Salt dome cavern pits are exempt from the liner requirements of §307.A.
8. Produced water pits, washout pits, and onshore terminal pits located in the coastal area shall comply with the liner requirements of §307.A unless such pit is subject to an approved Louisiana Water Discharge Permit System (LWDPS) permit.
9. Emergency pits located in the coastal area shall comply with the requirements of §307.E unless such pit is subject to an approved Louisiana Water Discharge Permit System (LWDPS) permit.
10. Any production pit which is not subject to an approved Louisiana Water Discharge Permit System (LWDPS) permit on October 20, 1990 shall submit a closure plan to the Office of Conservation by January 1, 1991.

L. Within six months of the completion of the drilling or workover of any permitted well, the operator (generator) shall certify to the commissioner by filing Form UIC-16 the types and number of barrels of NOW generated, the disposition of such waste, and further certify that such disposition was conducted in accordance with applicable rules and regulations of the Office of Conservation. Such certification shall become a part of the well's permanent history.

M. Based upon the best practical technology, production pits located within an 'A' zone (FEMA) which meet the following criteria are not subject to the levee height requirements of §303.J above or the liner requirements of §307.A.1:

1. pit size is less than or equal to 10' x 10' x 4' deep;
2. such pit contains only produced brine; and
3. such pit is utilized for gas wells producing less than 25 mcf per day and less than or equal to one barrel of saltwater per day (bswpd).

N. Evidence of contamination of a groundwater aquifer or USDW may require compliance with the monitoring program of §309, compliance with the liner requirements of §307.A.1, or immediate closure of the pit.

§305. Notification

A. Existing Pits

1. Each pit which was constructed prior to January 20, 1986 is an existing pit. Use of an existing pit is prohibited unless the operator has reported that pit to the Office of Conservation by July 20, 1986 according to the requirements of this Paragraph. Notification shall contain the information requested below. Pits closed prior to January 20, 1986 are not considered existing pits.
2. Operators of existing pits must submit the following information to the Office of Conservation by July 20, 1986:
 - a. for each existing pit to be utilized in the operation of oil and gas facilities, the information requested in §305.D.1-8 below;

b. for each existing pit not to be utilized in the operation of oil and gas facilities the information requested in §305.D.1-6 below;
c. a plan and schedule of abandonment for closure of pits identified in §305.A.2.b above. Such plan must comply with the provisions of §303.H, §311, and §313. Failure to comply with the plan in a timely manner will subject an operator to appropriate civil penalties.

3. Operators of existing pits in the coastal area shall comply with the requirements of §303.K.3.

B. New Pits. Except for reserve pits, operators must notify the Office of Conservation of the intent to construct new pits at least 10 days prior to start of construction. Notification shall contain all information requested in §305.D or §303.K.4 as appropriate. The Office of Conservation may inspect any proposed pit site prior to or during construction; however, initial use of the completed pit need not be deferred if no inspection is made.

C. Reserve Pit Notification.

For reserve pits used in drilling and workover operations, notification requirements of this rule shall be satisfied by application for a drilling or work permit.

D. Notification Information Required Form UIC-15

1. name of facility pit (indicate whether new or existing);

2. field designation, if applicable;

3. section, township and range (include approximate footage location of pit center);

4. parish name;

5. type of pit (consistent with definitions in §301);

6. size of pit (length, width and depth);

7. type of liner if applicable;

8. certification that each pit will or does conform to standards stipulated under §307 applicable to that type pit and that such compliance will be within the time frame described in §303.G, H, and I, if applicable.

§307. Pit Classification, Standards, and Operational Requirements

A. Produced Water, Onshore Terminal, and Washout Pits

1. Except where exempted by §303.K.8 and §303.M, groundwater aquifer and USDW protection for above-listed pits shall be provided by one of the following.

a. A liner along the bottom and sides of pits which has the equivalent of 3 continuous feet of recompacted or natural clay having a hydraulic conductivity no greater than 1×10^{-7} cm/sec. Such liners include, but are not limited to the following.

i. Natural LinerCnatural clay having a hydraulic conductivity meeting the requirements of §307.A.1.a above.

ii. Soil Mixture LinerCsoil mixed with cement, clay-type, and/or other additives to produce a barrier which meets the hydraulic conductivity requirements of §307.A.1.a above.

iii. Recompacted Clay LinerCin situ or imported clay soils which are compacted or restructured to meet the hydraulic conductivity requirements of §307.A.1.a above.

iv. Manufactured LinerCsynthetic material that meets the definition in §301 and is equivalent or exceeds the hydraulic conductivity requirements of §307.A.1.a above. Pits constructed with a manufactured liner must have side slopes of 3:1 and the liner at the top of the pit must be buried in a 1' wide and 1' deep trench. A sufficient excess of liner material shall be placed in the pit to prevent tearing when filled with NOW.

v. Combination LinerCa combination of two or more types of liners described in this Section which meets the hydraulic conductivity requirements of §307.A.1.a above.

b. Any other alternate groundwater aquifer and USDW protection system acceptable to the Office of Conservation.

2. Pits shall be protected from surface waters by levees or walls and by drainage ditches, where needed, and no siphon or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination. Authorized surface discharges of pit contents under federal and/or state regulatory programs are not considered to be pollution or contamination as used herein.

3. A representative of the Office of Conservation must be given an opportunity to inspect prior to and during construction of the pit as provided under §305.B.

4. Liquid levels in pits shall not be permitted to rise within two feet of top of pit levees or walls. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

5. When use of a pit will be permanently discontinued by the operator of record, the Office of Conservation shall be notified in writing. Pits shall be emptied of all fluids in a manner compatible with all applicable regulations and closed in accordance with §303.F and G within six months of abandonment.

B. Reserve Pits

1. Pits shall be protected from surface waters by levees or walls and by drainage ditches, where needed, and no siphons or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination. Authorized surface discharges of pit contents under federal or state regulatory programs are not considered to be pollution or contamination as used herein.

2. Liquid levels in pits shall not be permitted to rise within two feet of top of pit levees or walls. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

3. Operators shall prevent the placing of produced water, waste oil, trash, or any other material into a reserve pit which would increase the difficulty in clean-up of the pit or otherwise harm the environment. Such material shall be properly stored and disposed of according to applicable state or federal regulations.

4. Pits shall be emptied of fluids in a manner compatible with all applicable regulations, and closed in accordance with §311 and §313 within six months of completion of drilling or work over operations.

C. Burn Pits

1. Pits shall be constructed in such a manner as to keep fire hazards to a minimum, and in no case shall be located less than 100 feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

2. Pits shall be protected from surface waters by levees or walls and by drainage ditches, where needed, and no siphons or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination.

3. A representative of the Office of Conservation must be given an opportunity to inspect prior to and during construction of the pit as provided under §305.B.

4. Any burning process shall be carried out in conformance with applicable air quality regulations. Notification as required by said regulation shall be made to the Air Quality Division, Department of Environmental Quality.

5. No produced water, radioactive material (except industry-accepted and license-approved radioactive material utilized in oilfield operations, and radioactive material naturally occurring in the produced fluids), or other noncombustible waste products shall be placed in pits, except water or emulsion which may be associated with crude oil swabbed or otherwise produced during test operations, or during tank or other vessel cleaning operations. NOW must be removed or burned periodically to assure that storage of materials in the pit is kept to a minimum.

6. Liquid levels in pits shall not be permitted to rise within 2 feet of top of pit levees or walls. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

7. When use of pits will be permanently discontinued by the operator of record, the Office of Conservation shall be notified in writing. Pits shall be emptied of fluids in a manner compatible with all applicable regulations, and closed in accordance with §311 and §313 within six months of abandonment.

D. Well Test Pits

1. Pits shall be constructed in such a manner as to keep fire hazards to a minimum, and in no case shall be located less than 100 feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

2. Pits shall be protected from surface waters by levees or walls and by drainage ditches, where needed, and no siphons or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination.

3. A representative of the Office of Conservation must be given an opportunity to inspect prior to and during construction of the pit as provided under §305.B.

4. Within 30 days after completion of a well test, pits shall be emptied of produced fluids and must remain empty of produced fluids during periods of nonuse.

5. Liquid levels in pits shall not be permitted to rise within two feet of top of pit walls or dikes. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

6. When use of pits will be permanently discontinued, the Office of Conservation shall be notified in writing. Pits shall be emptied of fluids in a manner compatible with all applicable regulations, and closed in accordance with §311 and §313 within six months of abandonment.

E. Emergency Pits

1. Groundwater aquifer and USDW protection for emergency pits shall be evaluated on a case-by-case basis. Operators who intend to utilize existing or new emergency pits without liners must demonstrate by written application to the Office of Conservation that groundwater aquifer and USDW contamination will not occur; otherwise, emergency pits shall be lined. Applications to demonstrate unlined pits will not contaminate groundwater aquifers and Usable ground water shall at a minimum address the following:

- Emergency Incident Rate: Operator shall estimate the number of times a pit will be utilized each year. A detailed discussion of the facility operation and reasons for the emergency incident rate must be addressed.
- Soil Properties: Operator shall describe and evaluate soil properties onsite. Soil hydraulic conductivity and physical properties must be addressed to assess potential groundwater aquifer and USDW impacts.
- Groundwater Aquifer Evaluation: Water quality, groundwater aquifer, and USDW depth shall be evaluated.
- Produced Water Composition (total dissolved solids and oil and grease): Must be determined to assess potential impacts on the site.

2. All emergency pits required to be lined must conform to hydraulic conductivity requirements in §307.A.1 above.

3. No produced water or any other NOW shall be intentionally placed in any emergency pit not meeting the hydraulic conductivity requirements (1 x 10⁻⁷ cm/sec for 3 continuous feet of clay) except in the case of an emergency incident. In emergency situations, notice must be given to the Office of Conservation within 24 hours after discovery of the incident. Produced water and any other NOW must be removed from the pit within seven days following termination of the emergency situation.

4. Pits shall be protected from surface waters by levees and by drainage ditches, where needed, and no siphons or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination. Surface discharges of pit contents under federal or state permits are not considered to be pollution or contamination as used herein.

5. A representative of the Office of Conservation must be given an opportunity to inspect prior to and during construction of the pits as provided under §305.B.

6. Liquid level in pits shall not be permitted to rise within 2 feet of top of pit levees. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

7. When use of pits will be permanently discontinued, the Office of Conservation shall be notified in writing. After notification to the Office of Conservation, pits shall be emptied of all fluids in a manner compatible with all applicable regulations, and closed in accordance with §311 and §313 within six months of abandonment.

F. Natural Gas Processing Plant Pits, Compressor Station Pits, and Salt Dome Cavern Pits

1. Pits shall be protected from surface waters by levees or walls and by drainage ditches, where needed, and no siphon or openings will be placed in or over levees or walls that would permit escaping of contents so as to cause pollution or contamination. Authorized surface discharges of pit contents under federal and/or state regulatory programs are not considered to be pollution or contamination as used herein.

2. A representative of the Office of Conservation must be given an opportunity to inspect prior to and during construction of the pit as provided under §305.B.

3. Liquid levels in pits shall not be permitted to rise within 2 feet of top of pit levees or walls. Pit levees or walls shall be maintained at all times to prevent deterioration, subsequent overfill, and leakage of NOW to the environment.

4. When use of a pit will be permanently discontinued by the operator of record, the Office of Conservation shall be notified in writing. Pits shall be emptied of all fluids in a manner compatible with all applicable regulations and closed in accordance with §311 and §313 within six months of abandonment.

G. Office of Conservation Corrective Action and Closure Requirement.

Should the Office of Conservation determine that continued operation of pits specified in this Subparagraph may result in contamination of a groundwater aquifer or a USDW, or the discharge of fluids into man-made or natural drainage or directly into state waters, or contamination of soils outside the confines thereof,

		<p>further use of the pit shall be prohibited until conditions causing or likely to cause contamination have been corrected. If corrective measures are not satisfactorily completed in accordance with an Office of Conservation compliance order or schedule, the commissioner may require closure of the pit. When an order for closure is issued, a pit shall be closed in accordance with §311 and §313 and the operator must comply with any closure schedule issued by the Office of Conservation.</p> <p>§313. Pit Closure Techniques and Onsite Disposal of NOW</p> <p>A. Reserve pit fluids, as well as drilling muds, cuttings, etc. from holding tanks, may be disposed of onsite provided the technical criteria of §313.C, D, E, or F below are met, as applicable. All NOW must be either disposed of on-site or transported to an approved commercial facility or transfer station in accordance with the requirements of LAC 43:XIX, Chapter 5 or under the direction of the commissioner.</p> <p>B. Prior to conducting onsite pit closure activities, an operator must make a determination that the requirements of this Subparagraph are attainable.</p> <p>C. For all pit closure techniques in this Subparagraph, except solidification, waste/soil mixtures must not exceed the following criteria:</p> <ol style="list-style-type: none"> 1. range of pH: 6 - 9; 2. total metals content (ppm): <ul style="list-style-type: none"> Parameter Limitation Arsenic 10 Barium Submerged Wetland Area 20,000 Elevated Wetland Area 20,000 Upland Area 40,000 Cadmium 10 Chromium 500 Lead 500 Mercury 10 Selenium 10 Silver 200 Zinc 500 <p>D. Land Treatment.</p> <p>Pits containing NOW may be closed onsite by mixing wastes with soil from pit levees or walls and adjacent areas provided waste/soil mixtures at completion of closure operations do not exceed the following criteria, as applicable, unless the operator can show that higher limits for EC, SAR, and ESP can be justified for future land use or that background analyses indicate that native soil conditions exceed the criteria.</p> <ol style="list-style-type: none"> 1. In addition to the pH and metals criteria listed in §313.C above, land treatment of NOW in submerged wetland, elevated wetland, and upland areas is permitted if the oil and grease content of the waste/soil mixture after closure is < 1 percent (dry weight). 2. Additional parameters for land treatment of NOW in elevated, freshwater wetland areas where the disposal site is not normally inundated: <ol style="list-style-type: none"> a. electrical conductivity (EC-solution phase): < 8 mmhos/cm; b. sodium adsorption ratio (SAR-solution phase): < 14; c. exchangeable sodium percentage (ESP-solid phase): 25 percent. 3. Additional parameters for land treatment of NOW in upland areas: <ol style="list-style-type: none"> a. electrical conductivity (EC-solution phase): < 4 mmhos/cm; b. sodium adsorption ratio (SAR-solution phase): < 12; c. exchangeable sodium percentage (ESP-solid phase): < 15 percent. <p>E. Burial or Trenching.</p> <p>Pits containing NOW may be closed by mixing the waste with soil and burying the mixture onsite, provided the material to be buried meets the following criteria:</p> <ol style="list-style-type: none"> 1. the pH and metals criteria in §313.C above; 2. moisture content: < 50 percent by weight; 3. electrical conductivity (EC): < 12 mmhos/cm; 4. oil and grease content: < 3 percent by weight; 5. top of buried mixture must be at least 5 feet below ground level and then covered with 5 feet of native soil; 6. bottom of burial cell must be at least 5 feet above the seasonal high water table. <p>F. Solidification. Pits containing NOW may be closed by solidifying wastes and burying it onsite provided the material to be buried meets the following criteria:</p> <ol style="list-style-type: none"> 1. pH range: 6 - 12; 2. Leachate testing* for oil and grease: < 10.0 mg/1 and chlorides < 500.0 mg/1 3. Leachate testing* for the following metals: <ol style="list-style-type: none"> a. Arsenic < 0.5 mg/1 b. Barium < 10.0 mg/l c. Cadmium < 0.1 mg/1 d. Chromium < 0.5 mg/1 e. Lead < 0.5 mg/1 f. Mercury < 0.02 mg/1 g. Selenium < 0.1 mg/1 h. Silver < 0.5 mg/1 i. Zinc < 5.0 mg/1 <p>*Note: The leachate testing method for oil and grease is included in the Laboratory Manual for the Analysis of Oilfield Waste (Department of Natural Resources, August 9, 1988, or latest revision).</p>
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*Note: The leachate testing method for metals is included in the Laboratory Manual for the Analysis of Oilfield Waste (Department of Natural Resources, August 9, 1988, or latest revision).

4. top of buried mixture must be at least five feet below ground level and covered with five feet of native soil;
5. bottom of burial cell must be at least five feet above the seasonal high water table;
6. solidified material must meet the following criteria*:
 - a. unconfined compressive strength (Qu): > 20 lbs/in² (psi);
 - b. permeability: <1 x 10⁻⁶ cm/sec;
 - c. wet/dry durability: > 10 cycles to failure.

*Note: Testing must be conducted according to ASTM or other approved methods prior to pit closure by solidification processes.

G. Passive Closure

1. The Office of Conservation will consider requests for passive pit closure provided one of the following conditions exists:
 - a. where pit closure would create a greater adverse environmental impact than if the pit were allowed to remain unreclaimed;
 - b. where pit usage can be justified for agricultural purposes or wildlife/ecological management.
2. Operators requesting passive pit closure shall submit the following:
 - a. an affidavit requesting passive pit closure for one of the reasons contained in §313.G.1;
 - b. a copy of Form UIC-15 or UIC-15-CP with pit identification number shown thereon;
 - c. an affidavit of no objection from the Louisiana Department of Wildlife and Fisheries obtainable by contacting:

La. Department of Wildlife & Fisheries P.O. Box 9800 Baton Rouge, LA 70898 Telephone: (225) 765-2367
 - d. where applicable, an affidavit of no objection from the Department of Natural Resources, Coastal Management Division, obtainable by contacting:

Department of Natural Resources Coastal Management Division P.O. Box 44487 Baton Rouge, LA 70804-4487 Telephone: (225) 342-7591
 - e. an affidavit of no objection from the landowner endorsing operator's request for passive pit closure;
 - f. a photograph of the pit in question;
 - g. an inspection of the pit signed by a conservation enforcement agent and a representative of the operator. The operator shall contact the applicable conservation district office to arrange date and time for inspection;
 - h. analytical laboratory reports of the pit bottoms and pit levees indicating conformance with applicable land treatment criteria set forth in §313.C and D;
 - i. an analytical laboratory report of the fluid contents of the pit indicating conformance with applicable state and federal discharge regulatory program. Contact the Department of Environmental Quality, Water Pollution Control Division, (225) 342-6363 for information regarding effluent limitations.
3. The Commissioner of Conservation retains the right to grant exceptions to the requirements of §313.G.2 as he deems appropriate.

H. Offsite Disposal of NOW

1. Except for produced water, drilling, workover and completion fluids, and rainwater which may be transported by an oil and gas operator to a community well or an operators permitted Class II disposal well or discharged to surface waters where authorized, nonhazardous oilfield waste shall not be moved offsite for storage, treatment, or disposal unless transported to an approved commercial facility or transfer station in accordance with the requirements of LAC 43:XIX, Chapter 5 or under the direction of the commissioner.
2. The criteria for land treatment, burial, or solidification listed above will apply, as appropriate, to the onsite disposal of any nonhazardous oilfield waste remaining onsite.
3. NOW that fails to meet the criteria of this Paragraph for onsite disposal shall be moved offsite by the operator to a permitted commercial facility or transfer station in accordance with the requirements of LAC 43:XIX, Chapter 5.

§315. Disposal of Reserve Pit Fluids by Subsurface Injection

A. General Provisions

1. The disposal (subsurface injection) of drilling and workover waste fluids (including reserve pit fluids) into (1) a newly drilled well which is to be plugged and abandoned or (2) into the casing annulus of a well being drilled, a recently completed well, or a well which has been worked over is prohibited, except when such injection is conducted in accordance with the requirements of this Subparagraph.
2. Injection of drilling and workover waste fluids shall not commence until approval has been granted by the Office of Conservation. Operators may apply for approval when applying for a drilling permit. Approval for injection into a well will remain valid for subsequent workovers provided the criteria in §315.C below continue to be met.
3. Injection of drilling and workover waste fluids (including reserve pit fluids) shall be limited to injection of only those fluids generated in the drilling, stimulation or workover of the specific well for which authorization is requested. Reserve pit fluids may not be transported from one well location to another for injection purposes.
4. Injection of drilling and workover waste pit fluids into zones that have been tested for hydrocarbons or are capable of hydrocarbon production is prohibited, except as otherwise provided by the commissioner.
5. Pump pressure shall be limited so that vertical fractures will not extend to the base of the USDW and/or groundwater aquifer.
6. A drilling and workover waste fluids injection site may be inspected by a duly authorized representative of the commissioner prior to approval.
7. Drilling and workover waste fluids to be injected pursuant to the provisions of this Section are exempt from the testing requirements of §311.C.

B. Application Requirements

1. Prior to the onsite injection of reserve pit fluids, an application shall be filed by the well operator on the appropriate form. The original and one copy of the application (with attachments) shall be submitted to the Office of Conservation for review and approval.
2. An application for approval of reserve pit fluid injection shall include:
 - a. schematic diagram of well showing:
 - i. total depth of well;

		<ul style="list-style-type: none"> ii. depths of top and bottom of all casing strings and the calculated top of cement on each; iii. size of casing; and iv. depth of the deepest USDW; <p>b. operating data:</p> <ul style="list-style-type: none"> i. maximum pressure anticipated; and ii. estimated volume of fluids to be injected; <p>c. a copy of the electric log of the well (if run) or a copy of the electric log of a nearby well;</p> <p>d. additional information as the commissioner may require.</p> <p>C. Criteria for Approval</p> <ol style="list-style-type: none"> 1. Casing string injection may be authorized if the following conditions are met and injection will not endanger underground sources of drinking water. <ul style="list-style-type: none"> a. Surface casing annular injection may be authorized provided the surface casing is set and cemented at least 200 feet below the base of the lowermost USDW, except as otherwise provided by the commissioner; or b. Injection through perforations in the intermediate or production casing may be authorized provided that intermediate or production casing is set and cemented at least 200 feet below the base of the lowermost USDW, except as otherwise provided by the commissioner. 2. Surface casing open hole injection may be approved provided the surface casing is set and cemented at least 200 feet below the lowermost USDW and a cement plug of at least 100 feet has been placed across the uppermost potential hydrocarbon bearing zone.
<p>Exempt Waste Handling</p>	<p>Oilfield Waste Disposition, Form ENG- 16</p> <p>Commercial E&P Waste Facility Permit Applications</p>	<p>§503. Offsite Storage, Treatment, and/or Disposal of nonhazardous Oilfield Waste at Commercial Facilities</p> <p>A. Generators of Nonhazardous Oilfield Waste</p> <ol style="list-style-type: none"> 1. For NOW taken offsite for storage, treatment, or disposal, the generator is responsible for the proper handling and transportation of such waste to assure its proper delivery to an approved commercial facility. Failure to properly transport such waste shall subject the generator to penalties provided for in R.S. 30:18. Each shipment must be documented as required by §511. 2. Any spills which occur during the offsite transportation of NOW shall be reported to the Office of Conservation, including the appropriate state and federal agencies, within 24 hours of the spill. 3. Operators (generators) are required to report the discovery of any unauthorized disposal of NOW by transporters, pit treaters, or any other oilfield contracting company. 4. Within six months of the completion of the drilling or workover of any permitted well, the operator (generator) shall certify to the commissioner the type(s) and number of barrels of NOW generated, the disposition of such waste, and certify further that such disposition was in accordance with applicable rules and regulations of this office. Such certification shall become part of the well's permanent history. <p>B. Approval of Commercial Facility Required.</p> <p>The storage, treatment, and/or disposal of NOW by a commercial facility must be approved by the commissioner as provided in this Section. Subsurface disposal of salt water is required and regulated by LAC 43:XIX, Chapter 4. The requirements of this Section do not apply to either lease saltwater disposal wells or to community saltwater disposal wells. The unpermitted or authorized storage, treatment, disposal or discharge of NOW is prohibited and is a violation of these rules.</p> <p>C. Approval of Transfer Station Required.</p> <p>The construction and operation of a transfer station must be approved by the commissioner upon submission of a permit application according to the requirements of §505.G.</p> <p>D. Location Criteria. Commercial facilities and associated saltwater disposal wells may not be located in any area:</p> <ol style="list-style-type: none"> 1. where the disposal well or related storage tanks, pits, treatment facilities or other equipment are within 500 feet of a residential, commercial, or public building, unless adherence to this requirement is waived by the owner of the building, or in the case of a public building, by the responsible administrative body. Any such waiver shall be in writing and must be made part of the permit application; 2. where the subsurface geology of any proposed injection zone (reservoir) does not exhibit the following characteristics: <ul style="list-style-type: none"> a. adequate thickness and areal extent of the proposed injection zone; and b. adequate clay confining beds separating the top of the proposed injection zone and the base of the lowermost underground source of drinking water; 3. where pits or land treatment cells and facilities are located in a "V" or A zone as determined by flood hazard boundary or rate maps and other information published by the Federal Emergency Management Agency (FEMA) unless adequate levees are constructed to at least one foot above the 100-year flood elevation as certified by a professional engineer or surveyor and able to withstand the velocity of the 100-year flood. Said maps and data are on file and may be viewed by interested parties at the Office of Conservation, Injection and Mining Division, Baton Rouge, La. Existing facilities located in a "V" or A zone will be required to build facility levees above the 100-year flood elevation as certified by a professional engineer or land surveyor. As conditions change and new data is made available by FEMA, owners of existing commercial facilities will be required to update their facilities accordingly; 4. where such area, or any portion thereof, has been designated as wetlands by the U.S. Corps of Engineers during, or prior to, initial facility application review; 5. where other surface or subsurface conditions exist which in the determination of the Commissioner of Conservation would cause the location to pose a threat of substantial, adverse effects on the environment at or near the location. <p>E. Design Criteria</p> <ol style="list-style-type: none"> 1. Commercial facilities, associated saltwater disposal wells, and transfer stations shall be designed in such a manner as to prevent the movement of waste materials into groundwater aquifers or underground sources of drinking water (Usable ground water) or to prevent the discharge of waste materials into man-made or natural drainage or directly into state waters unless a discharge permit has been received from the appropriate state or federal agency. 2. Commercial facilities and transfer stations shall be designed and constructed in accordance with, but not limited to, the following requirements: <ul style="list-style-type: none"> a. this Chapter and other applicable Sections of this order; b. retaining walls (levees) shall be built around all above-ground storage tanks to a level that will provide sufficient capacity to retain the contents of each tank and prevent the escape of stored wastes due to tank leakage, or some other cause; c. spill containment systems shall be built around unloading areas to prevent the escape of any wastes spilled during off-loading; and

		<p>d. limited access shall be provided by a lockable gate system. In addition, the need for a 6-foot chain-link fence around an entire facility or any portion of a facility will be determined after a site investigation by the commissioner or his designated representative. Gates shall be locked except during the hours a facility is permitted to receive nonhazardous oilfield waste.</p> <p><i>Editors Note: See Pits above for On-site Exempt Waste Handling provisions</i></p>
Spills	Exploration & Production Waste Unauthorized Discharge/ Disposal Notification, Form ENG-15c	<p>Chapter 1. Natural Resource Damage Assessment Subchapter B. State Trustee</p> <p>§111. Notification of an Unauthorized Discharge of Oil</p> <p>A. The coordinator shall promptly notify all state natural resource trustees of all reported unauthorized discharges of oil. B. After observing the characteristics of the unauthorized discharge of oil and the location of the affected natural resources, if the SOSC determines that the quantity or properties of the oil discharged or the natural resources potentially impacted by the oil differ significantly from the initial report, the SOSC shall promptly provide the state trustees with an updated report.</p>

Michigan		
Topic	Associated Forms	Regulations: http://www.deq.state.mi.us/documents/deq-ogs-land-fuelsmineral-oilandgas-regs.pdf
Permitting	Application for Permit to Drill, Deepen, Convert and Operate a Well, Form 7200-1	<p>Excerpted Text by Topic</p> <p>Oil and Gas Operations PART 2. PERMITS TO DRILL AND OPERATE R 324.201 Application for permit to drill and operate requirements; issuance of permit.</p> <p>Rule 201. (1) Until a person has complied with the requirements of subrule (2) of this rule, a person shall not begin the drilling or operation of a well for any of the following: (a) Oil or gas, or both. (2) A permit applicant shall comply with all of the following permit application requirements: (b) The survey required by subdivision (a) of this subrule shall include a plat that shows all of the following: (iv) Information relative to the approximate distances and directions from the stake or marker to special hazards or conditions, including all of the following: (A) Surface waters and other environmentally sensitive areas within 1,320 feet of the proposed well. Environmentally sensitive areas are identified by the department pursuant to applicable state and federal laws and regulations. (B) Floodplains associated with surface waters within 1,320 feet of the proposed well. (C) Wetlands, as identified by the provisions of sections 30301 to 30323 of the act, within 1,320 feet of the proposed well. (D) Natural rivers, as identified by the provisions of sections 30501 to 30515 of the act, within 1,320 feet of the proposed well. (4) The application for a well shall be processed pursuant to this rule and the supervisor shall issue or deny a permit to drill and operate pursuant to section 61525 of the act. Upon receipt of an application for a permit, the supervisor or authorized representative of the supervisor shall have up to 60 days to review the application to determine if the application is accurate and complete. If the application is determined to be inaccurate or incomplete, then the supervisor or authorized representative of the supervisor shall provide the person making the application for a permit, within the 60-day period, with a notice that the application is inaccurate or incomplete and what changes or additional information shall be submitted. Upon receipt of the requested information, the supervisor or authorized representative of the supervisor shall have up to an additional 30 days to review the information to determine if the application is accurate and complete. Upon completion of the review process, the supervisor or authorized representative of the supervisor shall issue or deny the permit application within 10 business days, as provided in section 61525 of the act. A determination of administrative completeness shall not be construed to mean that additional information may not be required from the applicant as a result of new circumstances that come to the attention of the supervisor. Pursuant to R 324.205, the supervisor shall not issue a permit to a person or an authorized representative of a person if the person is not eligible for a permit.</p> <p>R 324.205 Eligibility for permit.</p> <p>Rule 205. The supervisor shall not issue or transfer a permit, other than as provided by R 324.206(7) and (8), to a person who has been determined to be in violation of any of the following: (a) The act. (b) These rules. (c) Permit conditions. (d) Instructions. (e) Orders of the supervisor. (f) An order of the department of environmental quality.</p> <p>R 324.208 Termination of permit.</p> <p>Rule 208. (1) A permit issued pursuant to R 324.201(4), or transferred pursuant to R 324.206(6) or rules that were in effect before the effective date of these rules, shall terminate 2 years after the date of issuance, unless the drilling operation has reached a depth of not less than 100 feet below the ground surface elevation and the drilling operation is diligently proceeding or the well is otherwise being used for its permitted purpose.</p>
Well Treatment, Stimulation and Fracturing	Application to Change Well Status or Plug and Abandon Well, Form 7200-6 Record of Well Completion, Form 7130 Record of Well	<p>PART 5. COMPLETION AND OPERATION R 324.511 Change of well status.</p> <p>Rule 511. (1) A permittee of a well who desires to change the status of a well by an oil and gas operation, including temporary abandonment, except as allowed by R 324.704, and additional acid or other stimulation treatment, shall file an application for change of well status with the supervisor. The application shall set forth, in detail, the kind of oil and gas operation to be accomplished and the plan for protecting all oil, gas, brine, or fresh water strata the well has penetrated. A permittee shall not begin the oil and gas operation until he or she has received approval from the supervisor or authorized representative of the supervisor and provided notification to the supervisor or authorized representative of the supervisor of the date the oil and gas operation will commence. (2) A permittee of a well who changes the status of a well shall file, with the supervisor, within 60 days, a complete change of well status record on forms prescribed by the supervisor, except that a record shall not be filed when the change of well status operation is for temporary abandonment</p>

	Plugging or Change of Well Status, Form 7200-8	purposes.						
Well Construction	Certification of Casing and Sealing of Surface Hole, Form 7200-12 Record of Well Completion, Form 7130	<p>PART 4. DRILLING AND WELL CONSTRUCTION</p> <p>R 324.408 Surface casing.</p> <p>Rule 408.</p> <p>(1) Surface casing shall be set a minimum of 100 feet below the base of the glacial drift into competent bedrock and 100 feet below all fresh water strata.</p> <p>(2) Surface casing shall be cemented pursuant to R 324.411 and shall be circulated to the surface. If the cement falls back or fails to circulate to the surface, then the open annulus space shall be sealed with cement or other equivalent materials approved by the supervisor or authorized representative of the supervisor before resuming drilling.</p> <p>R 324.409 Wells drilled with cable tools.</p> <p>Rule 409. Wells drilled with cable tools shall have the innermost string of casing equipped with a high-pressure master gate valve, flow line assembly, control head with oil saver, bottle with hydraulic lubricator, or other combination of equipment approved by the supervisor or authorized representative of the supervisor. All of the equipment shall be anchored to the surface casing or another casing string before drilling into or through a stratum known to contain or likely to contain oil or gas. The wellhead equipment and casing to be installed to keep a well under control shall be pressure-tested commensurate to formation pressures, shall be in good working order when installed, shall be maintained in good working order throughout its use on the well, and shall be capable of being equipped with a bottle or lubricator, or both, when this method of control is necessary. The annulus shall be sealed with a bradenhead or other approved equipment that has a connection and valve for monitoring.</p> <p>R 324.410 Casing other than surface casing.</p> <p>Rule 410.</p> <p>(1) A person who drills a well or causes a well to be drilled pursuant to R 324.201 or rules that were in effect before the effective date of these rules shall case the well in a manner approved by the supervisor to prevent waste.</p> <p>(2) In addition to the surface casing, the supervisor may require or order a string of casing to be run to seal off any of the following:</p> <ul style="list-style-type: none"> (a) A potentially productive oil or gas zone, or both. (b) A lost circulation zone. (c) A utilized natural brine or mineral zone. (d) A storage field. (e) A high-pressure zone. (f) A reservoir undergoing secondary recovery. <p>(3) All casing, except for casing set pursuant to R 324.413, shall be of sufficient weight, grade, and condition to have a designed minimum internal yield of 1.2 times the greatest expected well bore pressure to be encountered.</p> <p>(4) For the purpose of proper sealing of wells and the prevention of waste, the minimum hole size for a given casing shall be as shown in table 410:</p> <p>Table 410 Minimum Hole size</p> <table border="1"> <thead> <tr> <th>Casing Size Outside diameter (O.D.)- inches</th> <th>Minimum hole size Outside diameter- inches</th> </tr> </thead> <tbody> <tr> <td>Up to 7 O.D.</td> <td>Casing O.D. + 1 ½</td> </tr> <tr> <td>More than 7 O.D.</td> <td>Casing O.D. + 2</td> </tr> </tbody> </table> <p>An exception to the minimum hole size as shown in table 410 may be granted by the supervisor or authorized representative of the supervisor, upon a written request by the permittee or applicant, if it is determined that the proposal provides proper sealing of the well. The supervisor or authorized representative of the supervisor may require a larger hole size for the surface hole than the size shown in table 410 in order to prevent waste.</p> <p>R 324.411 Cementing.</p> <p>Rule 411. Well casing shall be cemented by the pump and plug method or by a method approved by the supervisor and allowed to set undisturbed at static balance with the casing in tension, with surface pressure released, and with no backflow until the tail-in slurry reaches 500 psi compressive strength, but for not less than 12 hours; however, if backflow occurs, then the surface pressure shall not be released. The cement mixture shall be of a composition and volume approved by the supervisor or authorized representative of the supervisor. The casing shall be pressure-tested before the cement plugs are drilled or the casing perforated. The pressure at the top of the cement shall be equal to the expected operating pressure of the well; however, the test pressure shall not exceed the API specification for hydrostatic test pressure for new casing, API specification 5CT, specification for casing and tubing, April 1995, fifth edition, which is adopted by reference in these rules. Copies are available for inspection at the Lansing office of the geological survey division of the department of environmental quality.</p> <p>R 324.414 Requests for exceptions to R 324.406 through R 324.413.</p>	Casing Size Outside diameter (O.D.)- inches	Minimum hole size Outside diameter- inches	Up to 7 O.D.	Casing O.D. + 1 ½	More than 7 O.D.	Casing O.D. + 2
Casing Size Outside diameter (O.D.)- inches	Minimum hole size Outside diameter- inches							
Up to 7 O.D.	Casing O.D. + 1 ½							
More than 7 O.D.	Casing O.D. + 2							

		<p>Rule 414. If a permittee of a well demonstrates alternative methods that are in compliance with the requirements of these rules, then the request for an exception to the provisions of R 324.406 through R 324.413 and the rationale for the alternate methods shall be included in the application for permission to drill or shall be submitted in writing to the supervisor.</p> <p>PART 5. COMPLETION AND OPERATION R 324.507 Tubing.</p> <p>Rule 507. A permittee of a well shall tube a producible oil and gas well. A permittee of a well shall test and produce all oil through the tubing. Injection wells utilized for gas storage are exempt from this rule.</p>
Temporary Abandonment/ Shut- in Status	Application to Change Well Status or Plug and Abandon Well, Form 7200-6	<p>PART 2. PERMITS TO DRILL AND OPERATE R 324.209 Temporary abandonment status.</p> <p>Rule 209. (1) A permittee of a well that has not been used for its permitted purpose during 12 consecutive months shall plug the well, unless the well is granted temporary abandonment status. Temporary abandonment status shall be allowed only upon written application to, and approval of, the supervisor or authorized representative of the supervisor. (2) The term of the initial temporary abandonment status shall not be more than 12 months, unless the well is shut-in awaiting the connection of a sales line. For a well that is shut-in awaiting connection of a sales line, the term of the initial temporary abandonment status shall be up to and including 60 months. (3) Extensions for temporary abandonment status beyond the initial term provided in subrule (2) of this rule may be granted by the supervisor if, after application by the permittee, the supervisor determines that waste shall be prevented. When approving the extensions, the supervisor may require special actions and monitoring by the permittee to ensure the prevention of waste.</p>
Well Plugging	<p>Application to Change Well Status or Plug and Abandon Well, Form 7200-6</p> <p>Record of Well Plugging or Change of Well Status, Form 7200-8</p>	<p>PART 9. PLUGGING R 324.901 Notification of intention to abandon and plug well.</p> <p>Rule 901. A person shall not begin the plugging of a well until the permittee of a well has notified the supervisor or authorized representative of the supervisor of his or her intention to abandon the well and has received instructions for the plugging operation. The notification shall provide all of the information requested by the supervisor or authorized representative of the supervisor required to issue plugging instructions.</p> <p>R 324.902 Plugging instructions; methods and materials.</p> <p>Rule 902. (1) The supervisor or authorized representative of the supervisor shall issue plugging instructions after receipt of notification pursuant to R 324.901. The plugging instructions shall specify all of the following information: (a) The type and amount of plugging material to be used. (b) The depths at which bridges are to be set. (c) The depths and lengths of cement plugs. (d) The amount of casing to be pulled. (e) Other requirements the supervisor determines are necessary for the proper plugging of the well. (2) A permittee of a well shall ensure that all oil, gas, brine, and fresh water is confined to the strata in which the oil, gas, brine, and fresh water occur by using cement plugs or other plugs approved by the supervisor. A permittee of a well shall ensure that the well is plugged under static hole conditions at all times, unless otherwise approved by the supervisor or authorized representative of the supervisor. (3) A permittee of a well shall ensure that each cement plug, except for the bottom hole plug required by subrule (5) of this rule, the plug to be set at the base of the surface casing required by subrule (6) of this rule, and the surface plug required by subrule (7) of this rule, is a minimum of 200 feet in length or contains 50 sacks of cement, whichever is the greater volume of cement, unless otherwise approved by the supervisor or authorized representative of the supervisor. (4) A permittee of a well shall ensure that each cement plug, except for the bottom hole plug required by subrule (5) of this rule and the plug to be set at the base of the surface casing required by subrule (6) of this rule, is allowed to set undisturbed for a minimum of 1 hour and that the fluid level in the casing is continuously observed. If the observed fluid level in the casing drops during the hour, then the cement plug shall be tagged to ensure that the plug is still in place before setting the next plug uphole. If the plug is found not to be in place, then the plug shall be reset. (5) A permittee of a well shall ensure that the bottom hole cement plug is either: (a) A minimum of 200 feet in length, is allowed to set undisturbed for a minimum of 4 hours, has reached a compressive strength of 100 psi or more, and is tagged to ensure that it is still in place before setting the next plug uphole; however, if the bottom hole cement plug in a dry hole drilled by rotary methods is a minimum of 400 feet in length and the fluid level in the hole is observed to remain static, then the bottom hole plug is not required to be tagged. (b) A mechanical bridge plug or other approved bridge has been set and a minimum of 50 feet of cement has been placed on the bridge before setting the next plug uphole. (6) A permittee of a well shall set the plug at the base of the surface casing using either of the following methods as approved by the supervisor or authorized representative of the supervisor: (a) In static hole conditions, a cement plug shall be set at a minimum of 100 feet below the surface casing and shall extend a minimum of 100 feet into the surface casing. The cement plug shall be allowed to set undisturbed a minimum of 4 hours, shall have reached a compressive strength of 100 psi or more, and shall be tagged to ensure that it is still in place before setting the next plug uphole. If the plug is found not to be in place, then the plug shall be reset. (b) A mechanical open hole bridge plug or other approved bridge shall be set a minimum of 100 feet below the surface casing. A cement plug shall then be placed on the mechanical open hole bridge plug or other approved bridge. The cement plug shall extend a minimum of 100 feet into the surface casing,</p>

	<p>unless otherwise approved by the supervisor or authorized representative of the supervisor.</p> <p>(7) A permittee of a well shall set a cement surface plug a minimum of 30 feet below the surface and within 5 feet of the surface, unless otherwise approved by the supervisor or authorized representative of the supervisor.</p> <p>(8) If surface casing is not present, a permittee of a well shall set a mechanical open hole bridge plug or other approved bridge a minimum of 100 feet below the base of the glacial drift or 100 feet below the deepest fresh water stratum, whichever is the greater depth, and shall circulate cement to within 5 feet of the surface.</p> <p>(9) A permittee of a well shall ensure that the surface pipe or conductor pipe abandoned with the hole is cut off at a point not less than 4 feet below grade, a 1/2-inch steel welded plate or another type of seal approved by the supervisor or authorized representative of the supervisor is placed across the top of the pipe or pipes, and the permit number of the well is permanently affixed to the plate or approved seal at the top of the well.</p> <p>(10) A permittee shall file, within 60 days after plugging, the final plugging forms and certified copies of the service company records, which shall include all of the following information:</p> <ul style="list-style-type: none"> (a) The type of cement and number of sacks used, including the additives and percentages of the additives for each cement bridge plug. (b) The type and volume of plugging material used if other than cement. (c) The number of bridge plugs set in the hole and the depth and length of each plug. (d) Other materials left in the hole. (e) Service companies' records of cementing operations if requested by the supervisor or authorized representative of the supervisor. (f) All available graphics, if requested by the supervisor or authorized representative of the supervisor, showing the all of following information: <ul style="list-style-type: none"> (i) Pumping. (ii) Placement of cement. (iii) Weights. (iv) Times. (v) Pump rates. (vi) Other pertinent data dealing with the plugging operations. (g) The amounts and type of mix water used for each sack of cement. (h) The volume and types of spacers and flushes used. (i) The operator's daily plugging records. <p>(11) At a permittee's option, the well bore may be plugged from bottom to top with a material approved by the supervisor if the hydrostatic pressure of the material used is not allowed to exceed the fracturing pressure of the strata.</p>
<p>Tanks</p>	<p>R 324.504 Well sites and surface facilities.</p> <p>Rule 504.</p> <p>(2) The surface facilities shall be located not less than 300 feet from all of the following:</p> <ul style="list-style-type: none"> (a) Existing recorded freshwater wells and reasonably identifiable freshwater wells utilized for human consumption. <p>(3) Surface facilities may be located closer than 300 feet from existing recorded freshwater wells and reasonably identifiable freshwater wells utilized for human consumption and existing structures used for public or private occupancy under either of the following conditions:</p> <ul style="list-style-type: none"> (a) Upon presentation to the supervisor of a written consent signed by the owner or owners of all existing recorded freshwater wells and reasonably identifiable freshwater wells utilized for human consumption and existing structures used for public or private occupancy. (b) After a hearing under part 12 of these rules, the supervisor determines that the surface facility location will prevent waste, protect environmental values, and not compromise public safety. <p>(4) A permittee of a well shall not begin the installation of a surface facility or flow line without approval of the supervisor or authorized representative of the supervisor. A permittee shall make a written request for approval to construct and operate or to substantially reconstruct and operate a surface facility or flow line and shall file the request with the supervisor. The request may be filed with the application for a permit to drill and operate a well.</p> <p>(7) Surface facilities constructed after November 15, 1989, shall have secondary containment under R 324.1002.</p> <p>PART 10. WELL SITES AND SURFACE FACILITIES; PREVENTION OF FIRES,POLLUTION, AND DANGER TO, OR DESTRUCTION OF, PROPERTY OR LIFE</p> <p>R 324.1002 Secondary containment requirements and construction standards.</p> <p>Rule 1002.</p> <p>(1) All wellheads and pump jacks installed after the effective date of these rules and surface facilities constructed for hydrocarbon, gas, brine injection, or brine handling or surface facilities converted to brine injection or handling after November 15, 1989, shall provide for secondary containment pursuant to the requirements of this rule. A permittee of a well shall maintain all existing dikes or fire walls approved before November 15, 1989, in a manner to form a reservoir that has a capacity of 1 1/2 times the capacity of the enclosed tank or tank battery and shall keep the reservoir free of oil, emulsions, tank bottoms, brine, water, vegetation, debris, or any flammable or combustible material. The supervisor or authorized representative may require surface facilities for hydrocarbon, gas, brine injection, or brine handling constructed before November 15, 1989, to be upgraded to meet the requirements of this rule if the facility is substantially reconstructed.</p> <p>(3) A permittee of a well shall comply with all of the following minimum construction standards to meet the secondary containment requirements of this rule:</p> <ul style="list-style-type: none"> (c) A vessel that contains hydrocarbons or brine, or both, shall be elevated and placed on impervious pads or constructed so that any leakage can be easily detected. A vessel that is to be used on-site for 30 days or less shall, at a minimum, be placed on leak-resistant material. (d) A hydrocarbon and brine storage vessel, including oil heating and treating equipment, shall be located in a secondary containment area and the containment volume shall be in compliance with the following minimum requirements, as applicable: <ul style="list-style-type: none"> (i) Containment areas that have only brine storage vessels shall be constructed to contain 150% of the largest storage vessel. (ii) Containment areas with only hydrocarbon storage vessels shall be constructed pursuant to R 29.2301 et seq.

		<p>(iii) Containment areas where both hydrocarbon and brine storage vessels are located shall be in compliance with the volume requirements for the largest storage vessels.</p> <p>(iv) Precipitation shall be taken into consideration in the design of the secondary containment area.</p> <p>(e) The sidewalls and floor of the secondary containment and spill containment areas shall be constructed and sealed in a manner to prevent the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater.</p> <p>(h) Dikes shall be maintained and the enclosure kept free of all of the following:</p> <ul style="list-style-type: none"> (i) Oil. (ii) Emulsions. (iii) Tank bottoms. (iv) Brine. (v) Water.
<p>Pits</p>		<p>PART 4. DRILLING AND WELL CONSTRUCTION R 324.407 Drilling mud pits.</p> <p>Rule 407.</p> <p>(1) The supervisor shall prohibit the use of a drilling mud pit if it is determined that the mud pit causes waste.</p> <p>(2) Drill cuttings, muds, and fluids shall be confined by a pit, tank, or container which is of proper size and construction and which is located as approved by the supervisor or authorized representative of the supervisor.</p> <p>(3) Only tanks shall be utilized while drilling a well that is located in an area zoned residential before January 8, 1993. The supervisor may grant an exception if the applicant or permittee makes a request for an exception as part of the written application for a permit. The supervisor may grant an exception if an applicant or permittee satisfactorily demonstrates that a municipal water system is utilized or required to be utilized.</p> <p>(4) Drilling mud pits shall be located and plotted as instructed by the supervisor. Before construction of the mud pit, a permittee shall demonstrate to the supervisor or authorized representative of the supervisor that there is not less than 4 feet of vertical isolation between the bottom of the pit and the uppermost groundwater level. The bottom of the liner shall not be installed within the observed groundwater level as determined while excavating the pit. If groundwater is encountered during or before construction of the pit, then the permittee shall select 1 of the following options and obtain the approval for the option from the supervisor or authorized representative of the supervisor:</p> <ul style="list-style-type: none"> (a) The pit shall be designed and constructed so the bottom of the pit is not less than 4 feet above the groundwater level. (b) The pit shall be designed and constructed so the bottom of the pit is above the groundwater level, but less than 4 feet above the groundwater level, and during encapsulation the pit contents shall be solidified using a method approved by the supervisor. (c) The pit shall be relocated at the well site as approved by the supervisor or authorized representative of the supervisor. (d) Tanks shall be used, and drilling muds disposed of, at an approved off-site location. <p>(5) Drilling mud pits shall be constructed as instructed by the supervisor and shall be in compliance with both of the following minimum requirements:</p> <ul style="list-style-type: none"> (a) Pits shall be constructed with rounded corners and side slopes of not less than 20 degrees measured from the vertical. (b) The bottom and sides of the pit shall be free of objects that could penetrate the liner. <p>(6) Drilling mud pits shall be lined as instructed by the supervisor and shall be in compliance with all of the following minimum requirements:</p> <ul style="list-style-type: none"> (a) Pits shall be lined with 20-mil virgin polyvinyl chloride liners as approved by the supervisor or with other liners that meet or exceed the 20-mil virgin polyvinyl chloride liner requirement. (b) Ample liner material shall be installed in a manner to allow for sags and material loading to reduce stress on the liner and allow for a minimum 10-foot flat apron on all sides, including enough liner material to underlay the drilling mud tank, salt washer, and shale shaker. (c) The bottom of the lined pit shall be weighted with earthen material or water before anchoring the ends of the liner on the surface or placing drilling muds in the pit. (d) Ripping, tearing, puncturing, or other destruction of a liner that may cause loss of fluids is prohibited. (e) Liner field seams are prohibited, except for liner field seams that result from failures in the liner due to abrasion or accidental perforation, which shall be immediately repaired in the field using the manufacturer's recommended procedures. <p>PART 5. COMPLETION AND OPERATION R 324.502 Oil, brine, or associated oil or gas field waste; storage.</p> <p>Rule 502. A permittee of a well shall not store or retain oil, brine, or associated oil or gas field waste in earthen reservoirs or open receptacles.</p> <p>PART 10. WELL SITES AND SURFACE FACILITIES; PREVENTION OF FIRES, POLLUTION, AND DANGER TO, OR DESTRUCTION OF, PROPERTY OR LIFE R 324.1005 Use of pits to collect waste oil and tank bottoms prohibited; conveying, storing, or disposing of waste oil and tank bottoms.</p> <p>Rule 1005. A permittee of a well shall not use earthen pits to collect waste oil and tank bottoms. A permittee shall not convey, store, or dispose of waste oil and tank bottoms in a manner that causes waste.</p>
<p>Exempt Waste Handling</p>		<p>PART 7. DISPOSAL OF OIL OR GAS FIELD WASTE, OR BOTH R 324.701 Prevention of pollution, contamination, or damage.</p> <p>Rule 701. The storage, transportation, or disposal of brine, crude oil, or oil or gas field waste that results in, or that the supervisor determines may result in, pollution is prohibited. A permittee of a well shall ensure that wastes are stored, transported, and disposed of in a manner approved by the supervisor and consistent with all applicable state and federal laws and regulations.</p>

		<p>R 324.702 Pit disposal prohibited; exception.</p> <p>Rule 702. Except as provided in R 324.407(2), a permittee of a well shall not dispose of oil or gas field waste, or both, in earthen pits.</p> <p>R 324.703 Disposal of oil or gas field fluid wastes, or both.</p> <p>Rule 703. A permittee of a well shall inject oil or gas field fluid wastes, or both, into an approved underground formation in a manner that prevents waste. The disposal formation shall be isolated from fresh water strata by an impervious confining formation.</p> <p>R 324.705 Disposition of brine.</p> <p>Rule 705.</p> <p>(1) A permittee of a well is responsible for the proper disposal of all brines produced in association with oil or gas production, or both, or brines accumulated in drilling mud pits or tanks and shall ensure that waste, as defined in section 61501(p) of the act, will not occur. A permittee may convey or transfer brines for other purposes if the brines are in compliance with the conditions provided in subrule (3) of this rule. A permittee shall be required to maintain records on the disposition of all brines pursuant to subrule (4) of this rule, and a permittee shall not have continuing liability relative to the transport or application of the brines after the brines are properly conveyed or transferred.</p> <p>(2) Upon the effective date of these rules, a permittee of a well shall not use brines produced in association with drilling for oil and gas, or both, and accumulated in drilling mud pits for ice or dust control purposes.</p> <p>(3) Twelve months after the effective date of these rules, a permittee shall dispose of all brines as provided in R 324.703 or shall use the brines in a manner approved by the supervisor; however, some brines may be conveyed or transferred and used for ice and dust control and road stabilization if all of the following conditions are satisfied:</p> <ul style="list-style-type: none"> (a) Brines shall not be used for ice and dust control and road stabilization if the brines are obtained from wells containing more than 20 ppm hydrogen sulfide in the gas stream, unless it can be shown that there is less than a 500-ppm-hydrogen sulfide concentration present in the brine. (b) The brines shall contain a 20,000-milligrams-per-liter or more concentration of calcium. (c) The brines shall contain less than a 1,000-micrograms-per-liter concentration of each of the following aromatic hydrocarbons: <ul style="list-style-type: none"> (i) Benzene. (ii) Ethylbenzene. (iii) Toluene. (iv) Xylene. (d) Only brines that have been approved by the supervisor or authorized representative of the supervisor may be exempt from the disposal requirements of R 324.703.
<p>Spills</p>	<p>Report of Loss or Spill, Form 7233</p>	<p>PART 10. WELL SITES AND SURFACE FACILITIES; PREVENTION OF FIRES,POLLUTION, AND DANGER TO, OR DESTRUCTION OF, PROPERTY OR LIFE</p> <p>R 324.1006 Cleanup and disposal of losses.</p> <p>Rule 1006. A permittee of a well shall clean up and dispose of, in a manner consistent with these rules and all applicable state and federal laws and regulations, losses of oil, gas, or brine from wells, flow lines, and associated surface facilities.</p> <p>R 324.1008 Reporting of losses, spills, and releases.</p> <p>Rule 1008.</p> <p>(1) A permittee of a well shall, under this rule and instructions issued by the supervisor and in compliance with all applicable state and federal laws and regulations, promptly report and record all reportable losses, spills, and releases of any of the following:</p> <ul style="list-style-type: none"> (a) Brine. (b) Crude oil. (c) Oil or gas field waste. (d) Natural gas. (e) Products and chemicals used in association with oil and gas exploration, production, disposal, or development. <p>(2) A permittee of a well shall promptly report, within 8 hours of a loss, release, or spill discovery, by telephone or in person, to the supervisor or authorized representative of the supervisor during normal business hours or to the department of environmental quality, pollution emergency alerting system between 5 p.m. and 8 a.m. and on weekends and holidays, all losses or releases of gas that result in, or may result in, a nuisance odor or unnecessary endangerment of public health or safety, and all losses or spills of 42 gallons or more of brine, crude oil, or oil and gas field waste.</p> <p>(3) A permittee of a well shall submit written notification of the losses, spills, and releases to the supervisor or authorized representative of the supervisor by completing all parts of the form provided by the supervisor within 10 days from the time the loss, spill, or release was discovered.</p> <p>(4) A permittee of a well shall report all losses or spills of less than 42 gallons of brine, crude oil, or oil and gas field waste by completing only parts 1 and 3 of the form provided by the supervisor if both of the following provisions apply:</p> <ul style="list-style-type: none"> (a) The loss or spill does not contact surface waters, groundwater, or other environmentally sensitive resources. (b) The loss or spill is completely contained and cleaned up within 48 hours from the time the loss or spill was discovered. <p>(5) If a loss or spill of less than 42 gallons of brine, crude oil, or oil and gas field waste does contact surface waters, groundwater, or other environmentally sensitive resources, or is not completely contained and cleaned up within 48 hours from the time the loss or spill was discovered, then a permittee of a well</p>

		<p>shall report the loss or spill as provided by subrule (2) of this rule and submit the written notification as provided by subrule (3) of this rule.</p> <p>(6) If the loss or spill is less than 42 gallons of brine, crude oil, or oil and gas field waste, then the loss is not a reportable loss or spill if the loss or spill occurs while a permittee or an authorized representative of the permittee is on-site and the loss or spill is completely contained and cleaned up within 1 hour of the occurrence.</p> <p>(7) A permittee of a well shall promptly report, within 8 hours of discovery of the loss or spill, by telephone or in person, a loss or spill of other chemicals used in association with oil and gas exploration, production, disposal, or development, shall provide the information required in subrule (2)(a) through (l) of this rule, and shall complete the form required in subrule (3) of this rule. A permittee shall report the losses or spills under other applicable state and federal laws and regulations.</p>
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Mississippi

Topic	Associated Forms	Regulations: http://www.ogb.state.ms.us/docs/RuleBook06-2007.doc Excerpted Text by Topic														
Permitting	Application for Permit to Drill, Workover or Change Operator, Form 2	<p>Statewide Rules and Regulations RULE 4. APPLICATION TO DRILL</p> <p>(a) Before any person shall commence the drilling of any well in search of oil or gas, such person shall file in duplicate with the Board on Form 2 his application for a permit to drill, accompanied by a certified plat and by a fee of three hundred dollars (\$300), payable to the State Oil and Gas Board.</p>														
Well Treatment, Stimulation and Fracturing	Well Completion or Recompletion Report and Well Log, Form 3	<p>RULE 26. REPORT OF SHOOTING OR TREATING</p> <p>Within thirty (30) days after the shooting or chemical treatment of an oil or gas well recompleted in the same pool, the owner, producer, or operator in charge of the work shall file with the Board a report on Form No. 3.</p>														
Well Construction	Well Completion or Recompletion Report and Well Log, Form 3	<p>RULE 10. SEALING OFF STRATA</p> <p>(a) No stratum upon being penetrated shall be drilled or left open, except at the direction of the Supervisor, without the application of mud-laden fluid or other means to prevent the escape of oil or gas while further drilling in or through such stratum.</p> <p>(b) All fresh waters and waters of present or probable future value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected.</p> <p>(c) Before any oil or gas well is completed as a producer, all oil, gas and water strata above and below the producing horizon shall be sealed or separated in order to prevent their contents from passing into other strata.</p> <p>RULE 11. SURFACE CASING</p> <p>The minimum amount of surface or first-intermediate casing to be set shall be determined from the following table:</p> <table border="1"> <thead> <tr> <th>Proposed Total Depth-Feet</th> <th>Minimum Casing Requirements-Feet</th> </tr> </thead> <tbody> <tr> <td>0-2500</td> <td>200'</td> </tr> <tr> <td>2500-6000</td> <td>200' + 8% of proposed depth in excess of 2500'</td> </tr> <tr> <td>6000-7000</td> <td>480' + 10% of proposed depth in excess of 6000'</td> </tr> <tr> <td>7000-8000</td> <td>580' + 15% of proposed depth in excess of 7000'</td> </tr> <tr> <td>8000-9000</td> <td>730' + 20% of proposed depth in excess of 8000'</td> </tr> <tr> <td>9000-Deeper</td> <td>930' + 25% of proposed depth in excess of 9000'</td> </tr> </tbody> </table> <p>Casing shall be cemented with 500 sacks of cement or cement- admix or circulated to the surface, whichever is the lesser. Casing shall be tested at a pressure equivalent to one pound (1 lb.) per sq. inch per foot of casing set with a maximum test pressure of 1,000 lbs. per sq. inch. Cement or cement-admix shall be allowed to stand a minimum of twelve (12) hours under pressure before initiating test or drilling plug. "Under pressure" is complied with if one (1) float valve is used, or if pressure is held otherwise.</p> <p>The proposed surface casing program for any well is to be presented with the filing of Form No. 2, "Application to Drill."</p> <p>Prior to the spudding of any well, exceptions may be granted to the above minimum casing requirements upon submission of proper evidence and subject to the joint approval of the Supervisor and Chief Engineer of the Board. In event this approval for an exception to the minimum casing requirements is denied, the operator may seek further relief before the Board after notice and hearing.</p> <p>In case an operator decides to drill deeper after drilling to his initial proposed total depth, he may secure relief to the above minimum casing requirements just as though his original intent was to drill the well as an exception to the minimum casing requirements, provided, however, that such exception is approved by the Supervisor and Chief Engineer.</p> <p>RULE 12. PRODUCING CASING</p> <p>All oil and gas wells shall be completed with a string of casing which shall be properly cemented at a sufficient depth adequately to protect the oil- or gas-bearing pool. In every case no less cement shall be used than the calculated amount necessary to fill the annular space to a point 500 feet above the shoe. Cement shall</p>	Proposed Total Depth-Feet	Minimum Casing Requirements-Feet	0-2500	200'	2500-6000	200' + 8% of proposed depth in excess of 2500'	6000-7000	480' + 10% of proposed depth in excess of 6000'	7000-8000	580' + 15% of proposed depth in excess of 7000'	8000-9000	730' + 20% of proposed depth in excess of 8000'	9000-Deeper	930' + 25% of proposed depth in excess of 9000'
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		<p>be allowed to stand at least a total of twenty-four (24) hours before drilling plug. Before drilling the cement plug in the string of casing of any well, the casing shall be tested at a pressure in pounds per square inch calculated by multiplying the length in feet of a producing string by two-tenths (.2) with the maximum test pressure required, unless otherwise ordered by the Board, not to exceed fifteen hundred (1500) pounds per square inch. If at the end of thirty (30) minutes the pressure gauge shows a drop of ten percent (10%) of the test pressure or more, such corrective measures must be taken as will insure that the producing string of casing is so set and cemented that it will hold the pressure for thirty (30) minutes without a drop of more than ten percent (10%) of the test pressure on the gauge. The Board may, at its discretion, require that the operator give sufficient notice prior to conducting casing tests so that a Board representative may be present at such time as either the surface or producing casing is tested in any well.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Producers Monthly Report for Oil and Gas Wells, Form 9-12-15-Z</p> <p>Semi Annual Inactive Well Status Report, Form 9-A</p>	<p>RULE 28. PLUGGING AND ABANDONMENT</p> <p>Each abandoned hole or well shall be plugged by or on behalf of the owner, operator or producer who is in charge of the well and responsible therefor.</p> <p>A. Schedule of Abandonment and Reporting on Form No. OGB 9-12-15-Z and Form No. 9-A.</p> <p>1. Dry Holes</p> <p>All wells drilled for oil or gas and found to be dry prior to or after the effective date of this order shall be plugged within one hundred twenty (120) days after operations have been completed thereon or one hundred twenty (120) days after the effective date of this order, whichever is later, unless an extension of time is granted by the Supervisor.</p> <p>2. All Other Wells</p> <p>a. All wells wherein production operations or use as a service well have ceased on or after the effective date of this order shall continue to be reported on Form No. OGB 9-12-15-Z with the appropriate notation that the well is off production or no longer in use as a service well along with the date of last production or date the service well ceased to be used. After six (6) months, if such a well has not been restored to production or use as a service well, it shall thereafter be reported by the operator on the semiannual "Inactive Well Status Report" (Form No. 9-A). Form No. 9-A shall be filed with the Supervisor showing the status of such well as of April 1st and October 1st of each year (report to be filed no later than April 25th and October 25th). Within six (6) months of the filing of an "Inactive Well Status Report" (Form No. 9-A) the operator shall either: (i) properly plug and abandon the well in accordance with all applicable rules and regulations concerning same; or, (ii) return the well to production operations or use as a service well; or, (iii) submit a request to the Supervisor for a six (6) month extension of the well's "Inactive Well" status. Any request for such a six (6) month extension of the well's "Inactive Well" status shall be accompanied by a new "Inactive Well Status Report" (Form No. 9-A) indicating thereon that it is a request for an extension of a previously filed form. The request shall also be accompanied by information acceptable to the Supervisor concerning the reasons for the request (i.e. proof of the well's future utility, etc.) Any further extension of "Inactive Well" status beyond the one extension that may be granted at the discretion of the Supervisor may be granted only by the Board after notice and hearing and, if granted, may be for such period as the Board, in its discretion, deems appropriate. Any well granted "Inactive Well" status must continue to be reported on Form No. OGB 9-12-15-Z showing the date of last production or the date the well ceased to be used as a service well, together with a notation showing the well is carried on Form No. 9-A, "Inactive Well Status Report" until the well is plugged and abandoned.</p> <p>b. The "Inactive Well Status Report" shall list the field, well name, well number and other pertinent data and provide an appropriate column to classify such well as having either (1) future utility, or (2) no future utility. If the well is classified as having future utility, the operator shall specify such utility by completing the appropriate column on the form. Wells so classified shall be reviewed periodically by the Supervisor who, at his discretion, may require an operator to supply additional information to justify the classification.</p> <p>c. All such wells classified on the "Inactive Well Status Report" (Form No. 9-A) by either the operator or the Supervisor as having no future utility shall be plugged within one hundred twenty (120) days from the date of such classification unless an extension of time is otherwise granted by the Supervisor.</p>
<p>Well Plugging</p>	<p>Notice of Intention to Plug and Abandon, Form 6</p> <p>Plugging Record, Form 7</p>	<p>RULE 27. APPLICATION TO PLUG</p> <p>Any drilling well completed as a dry hole, from which the rig is to be moved away, shall be mudded and cemented, provided, however, that authorization to the contrary has not been given by the Board. Before any work is commenced to abandon any well drilled for the discovery of oil or gas, the owner or operator thereof shall give written notice to the Board of his intent to abandon such well on Form No. 6, along with a proposed procedure for plugging said well, prior to beginning operations of plugging said well. Upon receipt of such notice, the Board may issue plugging permit and may send a duly authorized representative to the location specified to be present at the time indicated in such notice, to witness the plugging of such well. In the case of an emergency, the application may be made orally or by telegraph, and the Supervisor may orally or by telegraph authorize the work; however, written application must be filed within five (5) days after emergency authorization is given even though the work has already been commenced or completed and a written permit shall be issued which shall contain the emergency authorization. Plugging operations shall begin within 120 days of approval of the Form 6 and shall proceed with due diligence until completed, however, an extension of time may be granted by the Board for good cause shown upon public notice and hearing. No surface or production casing shall be pulled from any abandoned well without first filing Form No. 6 and upon completion of said work, report on Form No. 7 the manner in which the well was plugged and the amount of pipe pulled.</p> <p>RULE 28. PLUGGING AND ABANDONMENT</p> <p>Each abandoned hole or well shall be plugged by or on behalf of the owner, operator or producer who is in charge of the well and responsible therefor.</p> <p>B. Procedure For Plugging</p> <p>Plugging shall be in accordance with the permit issued as provided for in the preceding rule and unless the permit or Form No. 6 sets forth the method and procedure of plugging the well, the following shall be applicable:</p> <p>1. With reference to the following, mud shall mean a mud fluid or weighted salt water fluid of sufficient weight to offset the hydrostatic pressure of any of the formations penetrated and cement shall mean cement or a proper cement-admix recognized by and of accepted use in industry.</p> <p>2. All uncased holes shall be plugged in the following manner. The hole shall be filled with mud, and cement plugs of not less than one hundred (100) feet in length shall be placed to protect each producible pool and a cement plug must be placed approximately fifty (50) feet below all freshwater-bearing strata, together with additional cement plugs to properly protect all uncased freshwater-bearing sands. Further, a cement plug of not less than one hundred (100) feet shall be placed at the bottom of the surface pipe and a plug shall be placed at the surface of the ground in a manner as not to interfere with soil cultivation.</p>

		<p>3. All wells in which production casing has been set shall be plugged as follows:</p> <p>a. If the production casing is not to be immediately pulled, a cement or bridging plug shall be placed near the bottom of the casing string and in such position as to protect any producible pool, and the top of the hole shall be properly capped in order to prevent the intrusion of foreign material into the well.</p> <p>b. Where the production casing is to be pulled, a cement or bridge plug shall be placed near the bottom of the production string so as to properly protect any producible pool and the hole filled with mud up to the point where the production casing is severed. The hole shall be filled with mud and a cement plug of not less than one hundred (100) feet in length shall be placed at approximately fifty (50) feet below all freshwater-bearing strata, together with additional cement plugs to properly protect all uncased freshwater-bearing sands. Further, a cement plug of not less than one hundred (100) feet shall be placed at the bottom of the surface pipe and a plug shall be placed at the surface of the ground in a manner as not to interfere with soil cultivation.</p> <p>c. The operator shall have the option as to the method of placing cement or cement-admix in the hole by (1) dump bailer, (2) pumping through tubing, casing, or drill pipe, (3) pump and plug, or (4) other method approved by the Board.</p> <p>d. Within thirty (30) days after the plugging of any well, the owner, operator, or producer responsible therefor who plugged, or caused to be plugged, the well shall file an affidavit on Form No. 7 with the Board, setting forth in detail the method used in plugging the well and a record of any casing removed.</p> <p>RULE 30. PLUGGING TO PERMIT USE OF FRESHWATER</p> <p>When any well to be plugged may safely be used as a freshwater well and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below freshwater; provided that written authority for such use is secured from the landowner and filed with the Board.</p>
Tanks		<p>RULE 61. FIREWALLS</p> <p>(a) Each permanent oil tank or battery of oil tanks now or hereafter located in the State of Mississippi, other than provided for in B and C below, must be surrounded by a dike (or firewall) or retaining wall of sufficient height and size so that the volume enclosed shall be equal to one hundred fifty (150) percent of the capacity of the largest tank in said battery; provided, however, that in such areas where such dikes (or firewalls) or retaining walls would be impractical or impossible to construct, and the operator has devised a plan which serves the same purposes, the Supervisor of the Oil and Gas Board may, upon proper written application, waive in whole or in part the requirement of the construction of such walls.</p> <p>(b) In water, swamp or marsh areas where the building of firewalls is impractical or impossible, and the requirement thereof has been waived by the Supervisor upon proper written application, permanent tanks shall be placed on an impervious base and surrounded by an impervious gutter to catch all of the oil and other waste products which, upon escape, may cause a fire hazard or pollution. A sump shall be provided to catch the runoff from the gutters. Provided, however, if upon proper written application to the Supervisor, the operator has devised a plan which serves the same purposes, the Supervisor may, after being presented with said plan and approving same, waive this requirement in whole or in part.</p> <p>(c) Tanks for the accumulation of liquid hydrocarbons not falling into the above categories (A and B above) and all facilities for the loading and transportation of liquid hydrocarbons by truck must be surrounded by a retaining wall or must be suitably ditched to a collecting sump, either to be of sufficient capacity to contain the potential spillage to prevent the possibility of pollution of surrounding areas.</p>
Pits	Application for Earthen Pit, Form 18	<p>RULE 45. WASTE BY POLLUTION OF AIR, SURFACE WATERS AND SOILS PROHIBITED</p> <p>E. Earthen Pits:</p> <p>1. The use of earthen pits shall be phased out and discontinued except as hereinafter provided. All earthen pits abandoned during the three (3) years prior to the adoption of this Rule by the Mississippi State Oil and Gas Board shall be emptied of fluids, in a manner that will not violate water quality standards, backfilled, leveled and compacted by January 1, 1978. All other earthen pits upon abandonment or at the time of the expiration of a valid permit or extension thereof covering same, shall immediately be emptied of all fluids, backfilled, leveled and compacted. These provisions do not apply to any earthen pit which has been abandoned and not in use for more than three (3) years prior to the adoption of this Rule by the State Oil and Gas Board. Penalties as provided for in Section 53-1-47 of the Mississippi Code of 1972 may be assessed for using any earthen pit without a valid permit issued by the Supervisor of the State Oil and Gas Board being currently in effect.</p> <p>2. The Supervisor of the State Oil and Gas Board may issue permits for the use of certain earthen pits, but no permit shall be valid for a period of more than two (2) years from the date of issuance, unless renewed by the Supervisor. Regardless of the type of permit issued, it must be renewed at least every two (2) years, or more often if so stated on the permit, or provided for by the Rules and Regulations promulgated by this Board. A general plan for disposal of pit contents shall accompany the application for any pit permit including a drilling reserve pit. All permits now in existence issued by the Supervisor for the use of earthen pits shall expire within two (2) years from the date of the adoption of this rule by the State Oil and Gas Board, unless so provided otherwise, and must then be renewed by the Supervisor. The Supervisor of the State Oil and Gas Board may issue a permit for the construction of certain earthen pits. Permits may be issued for five (5) types of earthen pits, as follows:</p> <p>Temporary Salt Water Storage Pits: This type of pit is temporary and is permitted only if no other means of storing or disposing of salt water is available. For example, a new discovery well might be located in an area remote from possible salt water disposal wells.</p> <p>Emergency Pits: This type of earthen pit is intended for emergency conditions, including the rupture or failure of other facilities.</p> <p>Burn Pits: This type of pit is intended for use as a place to burn tank bottoms and other refuse products that cannot be handled practicably in any other way.</p> <p>Well Test Pits: This type of pit is contemplated as a small pit used to test a producing well for a short period of time Drilling Reserve Pits (Mud Pits): A special permit is not required for Drilling Reserve Pits, because an approved Form No. 2 (Permit to Drill) constitutes the permit for the Drilling Reserve Pits. This type of pit is subject to strict stipulations as to backfilling when drilling is completed. (See below).</p> <p>3. The following conditions govern Temporary Salt Water Storage Pits:</p> <p>(a) The pit shall be lined with an impervious material acceptable to the Supervisor or his field representative and so constructed that salt water stored</p>

will not cause waste by pollution of fresh waters or contamination of soils beyond the confines of the pit. The pit shall be protected from surface waters by dikes and by drainage ditches, where needed, and no siphons or openings shall be placed in the walls or dikes.

(b) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(c) The fluid level shall never rise to within one (1) foot of the top of the pit walls or dikes and shall be kept below this level by emptying the pit of fluids in a manner compatible with Section III-E-9.

(d) Only produced water shall be intentionally placed in the pit. Such water shall contain no more than the traces of oil remaining after separation with normal field facilities.

(e) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(f) When the use of the pit is to be discontinued, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

4. The following conditions govern Emergency Pits:

(a) The pit shall be protected from surface waters by dikes and by drainage ditches, where needed, and no siphons or openings shall be placed in the walls or dikes that would permit the escaping of the contents of the pit so as to cause waste, pollution or contamination.

(b) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(c) The fluid level shall never rise to within one (1) foot of the top of the pit walls or dikes.

(d) No produced water shall be intentionally placed in the pit except as provided in (g) below. Its intended use is for emergencies only.

(e) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(f) When the use of the pit is to be discontinued, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

(g) Said pits may be used in the event of a salt water disposal or water injection system failure, but each such use shall not exceed a period of sixty (60) days. The operator shall advise the Supervisor or his field representative within seventy-two (72) hours after commencement and completion of such emergency use. Within two (2) weeks after the emergency period, the pit shall be emptied so as to contain not more than two (2) feet of water and inspected by a representative of the State Oil and Gas Board for future emergency use.

5. The following conditions govern Burn Pits:

(a) Shall be constructed in such a manner as to limit fire hazard to a minimum, and in no case shall they be located less than one hundred (100) feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

(b) Shall be constructed so as to prevent the escape of any of the contents and to prevent waste, pollution or contamination of fresh water, either surface or subsurface, or soils or property beyond the confines of the pit.

(c) Shall have a continuous embankment surrounding the pit sufficiently above the surface to prevent surface water from running into the pit.

(d) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(e) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(f) Any burning process shall be carried out in conformance with the Mississippi Air Quality Regulations. Notification, as required by said regulations, shall be made to the Mississippi State Oil and Gas Board.

(g) No brine-water, radioactive material, except industry-accepted and license-approved radioactive material utilized in oil field operations, and radioactive material naturally occurring in the produced fluids, or other noncombustible waste products shall be placed in the pit, except water or emulsion which may be associated with crude oil swabbed or otherwise produced during test operations, or during tank cleaning operations.

(h) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(i) When a pit is to be abandoned, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

(j) In between uses as a burn pit, the fluid level shall be kept at a suitable low level by periodically emptying the pit fluids in a manner compatible with Section III-E-9 (below).

6. The following conditions govern Well Test Pits:

(a) Shall be constructed in such a manner as to limit fire hazard to a minimum, and in no case shall they be located less than one hundred (100) feet from a well location, tank battery, separator, heater-treater, or any and all other equipment that may present a fire hazard.

(b) Shall be constructed so as to prevent the escape of any of the contents and to prevent waste, pollution or contamination of fresh water, either surface or subsurface, or soils or property beyond the confines of the pit.

(c) Shall have a continuous embankment surrounding the pit sufficiently above the surface to prevent surface water from running into the pit.

(d) The pit shall be identified with a sign (minimum of one (1) foot square) placed conspicuously near the pit containing the name of the operator, the location of the pit (section, township, range, and county), and the permit number issued by the Supervisor.

(e) A representative of the State Oil and Gas Board must be given an opportunity to inspect a pit prior to use.

(f) Any burning process shall be carried out in conformance with the Mississippi Air Quality Regulations. Notifications, as required by said regulations, shall be made to the Mississippi State Oil and Gas Board.

(g) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(h) When a pit is to be abandoned, the Supervisor shall be notified in writing. When abandoned, the pit shall be emptied of fluids, backfilled, leveled and compacted.

7. Conditions Governing Reserve Pits for Drilling Operations:

(a) Mud Pits used in connection with drilling operations shall be sited and constructed so as to prevent the escape of any of the pit contents.

(b) The pit shall be protected from surface waters by dikes and drainage ditches.

(c) No siphons or openings shall be placed in the walls or dikes that would permit the escaping of the pit contents.

(d) The fluid level shall never rise to within two (2) feet of the top of the pit walls or dikes.

(e) Upon completion of drilling operations, mud pits shall be emptied of fluids, backfilled, leveled and compacted within three (3) months. Extensions

may be granted by the Supervisor where warranted.

(f) Pit fluids may be discharged to the land surface and/or streams, after notifying the Oil and Gas Board field representative, if mud contents meet the criteria below and proper approval is secured from the Department of Natural Resources:

Chlorides	500 mg/l or less
PH	Between 6.0 and 9.0
Suspended Solids	100 mg/l or less
Specific Conductance	1000 Micromhos/cm or less
COD	250 mg/l or less
Zinc	5.0 mg/l or less
Chromium (total)	0.5 mg/l or less
Phenol	0.1 mg/l or less

(g) Mud Pits may be used as well test pits upon compliance with Section 6, above, and with the concurrence of the field representative of the Oil and Gas Board.

8. Revocation of Pit Permits:

Should the Supervisor of the State Oil and Gas Board determine that the continued operation of a pit or pits would result in waste by pollution of fresh water or water courses, or contamination of soils outside the confines thereof, he may prohibit further use of the pit or pits until the conditions causing or likely to cause such waste by such pollution have been corrected. If corrective measures are not satisfactorily completed within thirty (30) days, the Supervisor may revoke the pit permit. Penalties as provided for in Section 53-1-47 of the Mississippi Code of 1972 may be assessed. When a pit permit is revoked, the pit shall be emptied of fluids within two (2) weeks and backfilled, leveled, and compacted within thirty (30) days or additional penalties may be assessed.

9. Disposal During Drilling Operations:

Drilling muds and fluids and other waste products and deleterious substances used in conjunction with drilling operations may be disposed of by injection into sub-surface strata containing a dissolved solids content greater than 10,000 ppm, or as approved by the Supervisor, and void of oil, gas and fresh water, during the progress of or following drilling operations only, provided authorization is granted by the Supervisor of the State Oil and Gas Board.

Exempt Waste Handling

RULE 45. WASTE BY POLLUTION OF AIR, SURFACE WATERS AND SOILS PROHIBITED

I. Scope and Policy:

Pursuant to Chapter 301, General Laws of 1970, these rules and regulations are hereby promulgated to prevent waste by pollution of air, fresh waters and soils. These rules shall be effective throughout the State of Mississippi and are for the purpose of prevention of waste by pollution of air, fresh waters and soils.

II. Definitions:

- A. Fresh water for the purpose of administering of these rules and regulations shall mean surface or subsurface water in its natural state useful for domestic, livestock, irrigation, industrial, municipal, and recreational purposes.
- B. Soil shall mean any substance on which trees, grass, crops, or other vegetation may grow, down to not less than the depth of the water table.
- C. Fresh water stratum shall mean a stratum from which fresh water may be produced in known sufficient quantities and at a cost making its use feasible as fresh water.

D. Deleterious substance shall mean any chemical, salt water, oil field brine, waste oil, waste emulsified oil, basic sediment, and injurious substances produced or used in the drilling, development, producing, refining, and processing of oil, gas, sulphur, and other minerals.

III. Prevention and Elimination of Waste by Pollution:

- A. Waste by pollution of air, fresh waters, and soils is prohibited as hereinafter set out.
- B. Crude oil, waste oil, oil sludge, oil-water emulsion, or oil-bearing mixtures of any kind, and all other liquid, gaseous, solid, radioactive, or other deleterious substances which may pollute or tend to pollute the air, soils, or any waters of the state shall be disposed of in such a manner as to prevent, eliminate or reduce waste by pollution to acceptable levels.

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9. Disposal During Drilling Operations:

Drilling muds and fluids and other waste products and deleterious substances used in conjunction with drilling operations may be disposed of by injection into sub-surface strata containing a dissolved solids content greater than 10,000 ppm, or as approved by the Supervisor, and void of oil, gas and fresh water, during the progress of or following drilling operations only, provided authorization is granted by the Supervisor of the State Oil and Gas Board.

Spills

RULE 17. FIRES, LEAKS & BLOWOUTS

All persons operating any oil, gas or injection well or pipeline, or receiving tank, storage tank, or receiving and storage receptacle into which produced fluid is produced, received or stored, or through which produced fluid is piped or transported, shall immediately notify the Board by letter giving full details concerning all fires which occur at such oil, gas or injection well or tank or receptacle on their property, and all such persons shall immediately report all tanks or receptacles struck by lightning and any other fire which destroys oil or gas, and shall immediately report any breaks or leaks in or from tanks or receptacles and pipelines from which produced fluid or gas is escaping or has escaped. In all such reports, the location shall be given by section, township, range and property. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported; and shall detail the quantity of produced fluid or gas lost, destroyed, or permitted to escape. In case any tank or receptacle is permitted to run over, the amount running over shall be reported as in the case of a leak. The report hereby required as to produced fluid losses shall be necessary only in case such loss exceeds one (1) barrel in the aggregate.

Missouri		
Topic	<u>Associated Forms</u>	Regulations: http://www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp#10-50
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Deepen or Plug Back, Form OGC-3	<p>Rules of Department of Natural Resources Division 50- Oil and Gas Council 10 CSR 50-2.030 Application for Permit to Drill, Deepen, Plug-Back or Inject</p> <p>(1) Prior to commencement of operations, application for a permit must be made with the state geologist on form OGC-3 or OGC- 3-I (for injection wells) as prescribed by the council. An organization report (form OGC- 1) and bond (form OGC-2) must be on file in the office of the state geologist or must accompany the application.</p>
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Completion Report, Form OGC-5	<p>10 CSR 50-2.040 Drilling and Completion</p> <p>(1) During the drilling of any well, surface casing will be set at the depth indicated on form OGC-3 or form OGC-3-I which has been approved by the state geologist and will be cemented from the setting depth to the surface. Before the bottom plug is drilled or before tests are initiated, the surface casing will stand cemented for the following periods of time: neat cement, for twenty-four (24) hours; neat cement with one percent (1%) CaCl₂, for twelve (12) hours; neat cement with two percent (2%) CaCl₂, for ten (10) hours; neat cement with three percent (3%) CaCl₂, for eight (8) hours; and neat cement with four percent (4%) CaCl₂, for six (6) hours. If other additives are to be used in the cement, the operator must contact the staff of the office of the state geologist for setting times appropriate for that particular cement.</p> <p>(2) All wells drilled for oil, gas or injection shall be completed with a string(s) of casing which shall be properly cemented at sufficient depths to protect all water, oil or gas bearing strata and shall prevent their contents from passing into other strata. In the event wells are drilled with cable tools, temporary protective casing strings may be left uncemented. The specific casing and cementing requirements for injection wells shall be based on the depth to the base of the underground source of drinking water, the nature of the injected fluids and the hydraulic relationship between the injection zone and the base of the underground source of drinking water.</p> <p>(3) In certain instances, 10 CSR 50-2.040(3) shall modify 10 CSR 50-2.040(1) as follows: In wells drilled to producing formations at a depth of no greater than eight hundred feet (800'), the state geologist may approve owner's request to set a single casing string and to cement the string by placing sufficient cement to fill annular space no less than approximately forty feet (40') above the top of the producing horizon.</p>
Temporary Abandonment/ Shut- in Status		<p>10 CSR 50-2.040 Drilling and Completion</p> <p>(5) Whenever operations shall cease for a period of ninety (90) days on any well, the owner or operator of the well shall give notice to the council and, if the council shall deem it necessary to prevent the pollution of any fresh water strata or supply, shall cause the well to be temporarily plugged in accordance with the rules of the council and under its direction. If the operations on any well are not recommenced within a period of six (6) months after notice has been given, the well shall be deemed a permanently abandoned well and the owner or operator shall comply with the rules relating to the plugging and abandonment of wells. Provided, that upon application to the council prior to the expiration of the six (6)-month period and for good cause shown, the council may extend the period for an additional six (6) months and in like manner the council may grant additional six (6) month extensions, but the total time of such consecutive extensions shall not exceed two (2) years, unless a mechanical integrity test is performed as outlined in 10 CSR 50- 2.040(6) and the well capped at the surface, before the end of the two (2)-year extension period. The council may then permit the well to remain inactive status for a maximum of five (5) years and if not returned to active status within this time the well must be plugged.</p>
Well Plugging	Plugging Record, Form OGC-7	<p>10 CSR 50-2.060 Plugging and Abandonment</p> <p>(1) Before beginning abandonment work on any well whether it is a drilling well, or a well drilled for oil or gas, for geologic information, or for gas storage, or for any other purpose, notice of intention to abandon the well shall be filed with the state geologist on approved form OGC-6. The notice shall include the details of the proposed abandonment procedure and whether any logging tool containing a radioactive source is being abandoned (see section (8) of this rule for radioactive source abandonment procedure). If necessary to avoid rig downtime, oral permission to abandon dry holes may be obtained by informing the state geologist of proposed abandonment procedures.</p> <p>(2) In lieu of prior notice and approval by the state geologist (form OGC-6) the operator may elect to plug the hole from total depth to within plow depth of the surface with cement slurry, being no less than sixteen (16) pounds per gallon density. In such event, form OGC- 7 shall be forwarded to the state geologist within forty-eight (48) hours after completion.</p> <p>(3) Before any well is abandoned, it shall be plugged in a manner which will confine permanently all oil, gas and water in the separate strata originally containing them. The plugging operation shall be accomplished by the proper use of mud-laden fluid, cement and plugs, used singly or in combination as may be approved by the state geologist.</p> <p>(4) Drill holes in formations which contain oil or gas or from which oil or gas have been produced, or that have been used for injection, shall be plugged by placing cement from the base of the formation to a point no less than twenty-five feet (25') above the top of the formation.</p> <p>(5) Appropriate means shall be taken to eliminate movement of surface water into a plugged well and to prevent pollution of subsurface strata.</p>
Tanks		No specific regulation located
Pits		No specific regulation located

Exempt Waste Handling	Monthly Report of Disposal of Produced Water, Form OGC-10	10 CSR 50-2.090 Disposal of Fluids by Injection Before produced fluid may be disposed of by injection into subsurface strata, pertinent data concerning details of the proposed operation, forms OGC-3-I, OGC-4-I and OGC-11 and any other information required shall be submitted to and approved by the state geologist before injection may begin.
Spills		No specific regulation located

Montana		
Topic	Associated Forms	Regulations: http://www.mtrules.org/gateway/ChapterHome.asp?Chapter=36.22
Permitting	Application for Permit to Drill, Form 22	<p>Excerpted Text by Topic</p> <p>Rule Chapter 36.22 Oil and Gas Conservation 36.22.601 NOTICE OF INTENTION AND PERMIT TO DRILL</p> <p>(1) No person shall commence the drilling of an oil or gas well or stratigraphic test well or core hole without filing an application for permit to drill on Form No. 22 and obtaining a drilling permit from the board. If the proposed well or hole is not located within the boundaries of a delineated field for which, after public hearing, an order has been entered by the board that drilling permits may issue for locations within that field without further public hearing, the applicant must:</p> <p>(a) At its own expense, cause publication of notice in a format prescribed by the board in one issue of a newspaper in general circulation in Helena and a newspaper of general circulation in the county where the proposed well or hole is located; and</p> <p>(b) File proof of such publication in the form of a copy of the page on which the ad appears showing the ad and the date of publication or an affidavit of the publisher.</p> <p>(2) Prior to the commencement of recompletion operations on any oil or gas well, notice shall be delivered to the board of such intention on Form No. 2, and approval shall be obtained.</p> <p>(3) When a permit is sought for a 320 acre drilling or spacing unit, Form No. 22 as filed with the board shall include a description of the lands to be included.</p> <p>(4) The staff of the board shall refer an application for permit to drill to the board for notice and public hearing if:</p> <p>(a) An interested person shall, as to any application for permit to drill for which published notice is required, file in the form hereinafter set forth a written demand for an opportunity to be heard concerning such application; or</p> <p>(b) The staff determines that a person applying for a drilling permit or approval of recompletion operations is not in substantial compliance with the board's rules governing the applicant's operations in Montana; or</p> <p>(c) The planned drilling operations require further environmental review.</p> <p>(5) In those instances where such requests for a permit to drill have been the subject of notice and public hearing, the board shall, after such hearing, either:</p> <p>(a) Enter its order granting such permit under such conditions as the board shall find proper and necessary; or</p> <p>(b) Enter its order denying the application for the permit.</p> <p>(6) A demand for opportunity to be heard concerning any application for permit to drill for which published notice is required must:</p> <p>(a) Be in writing; and</p> <p>(b) Set forth the name, address, and telephone number of each party making the demand, and their ownership interest, if any, in the lands surrounding the drill site; and</p> <p>(c) Set forth the specific reasons why the party requests a hearing regarding the issuance of the proposed drilling permit; and</p> <p>(d) Be received by the board no later than ten (10) days after the date of the publication of the notice. Where the notice is not published on the same day in the newspapers specified in paragraph (1) (a) of this rule, the deadline for receiving demands for hearing will be measured by the later publication date. Service of such demand may be made on the board personally, by mail, or by FAX transmission; and</p> <p>(e) Be simultaneously served upon the applicant for the permit by written copy mailed or FAX transmitted to the address or number set forth in the published notice. A certificate of such service must accompany the demand as filed with the board.</p> <p>(7) Surface owner concerns which are subject to the provision of 82-10-504 , MCA (Surface Damage and Disruption Payments) will not be the subject of a public hearing before the board.</p> <p>36.22.604 PERMIT ISSUANCE - EXPIRATION – EXTENSION</p> <p>(1) If no written demand for hearing has been filed within ten (10) days following the date of publication of the notice as specified in ARM 36.22.601 and the planned drilling operations do not require further environmental review, and the application complies in all respects with the applicable rules of the board, a permit shall be issued promptly by the petroleum engineer or his authorized agent.</p> <p>(2) If the application for permit does not comply in all respects with such rules, said application shall be disallowed, and the petroleum engineer or his authorized agent shall promptly notify the person of the reason or reasons for such disallowance.</p> <p>(3) If drilling is not commenced, no such permit to drill shall be valid after the expiration of a period of six months from the date of the issuance thereof by the board or its authorized agents. Any permittee who fails to commence drilling within the six months period of the permit must file a new application for permit to drill and pay the fee therefor.</p> <p>(4) A permittee must advise the board, either verbally or in writing, of the date of spudding a permitted well within 72 hours of commencing drilling.</p>
Well Treatment, Stimulation and Fracturing	Sundry Notices and Report of Wells, Form 2	No specific regulation located
Well Construction	Completion Report, Form 4	<p>36.22.1001 ROTARY DRILLING PROCEDURE</p> <p>Unless altered, modified, or changed by the board for particular common sources of supply, the following rules apply to drilling wells with rotary tools.</p> <p>(1) Suitable and safe surface casing must be used in all wells. Sufficient surface casing must be run to reach a depth below all fresh water located at levels reasonably accessible for agricultural and domestic use. Surface casing must be set in or through an impervious formation and must be cemented by the pump-and-plug or displacement method with sufficient cement to circulate to the top of the well. If it becomes necessary to run a production string, such string must be cemented by the pump-and-plug method or any other method approved by the board administrator and must be properly tested by the pressure method before</p>

		<p>cement plugs are drilled.</p> <p>(2) All cemented casing strings shall stand under pressure until the cement has reached a compressive strength of 300 pounds per square inch; provided, however, that no tests shall be commenced until the cement has been in place for at least 8 hours. The requirement "under pressure" as used herein will be complied with if one float valve is used or if pressure is otherwise held.</p> <p>(3) Blowout prevention equipment must be installed and maintained on all wells in accordance with the requirements of ARM 36.22.1014.</p> <p>(4) Freshwater-based drilling fluid or air must be used when drilling the surface hole prior to setting surface casing and when drilling through freshwater aquifers anywhere within the state of Montana.</p> <p>36.22.1002 CABLE DRILLING PROCEDURE</p> <p>(1) Before commencing to drill a well, the operator must construct proper and adequate slush pits according to the plan in the application for permit to drill approved by the board.</p> <p>(2) If cable tools are used, sufficient casing must be set to protect all fresh water located at levels reasonably accessible for agricultural and domestic use, and, before drilling below the casing point proceeds, such casing must be tested by bailing to ensure a shutoff.</p> <p>(3) Natural gas that may be encountered in a substantial quantity in any section of a cable-tool-drilled hole above the ultimate objective must be shut off with reasonable diligence and confined to its original source. Any gas escaping from the well during drilling operations must be conducted a safe distance from the well site.</p> <p>(4) A casing program adopted for cable-tool-drilled wells must be so planned as to protect any potential oil or gasbearing horizons penetrated during drilling from infiltration of injurious waters from other horizons, to prevent the migration of oil or gas from one horizon to another, and to prevent migration of oil, salt water, or other contaminants into freshwater aquifers.</p> <p>(5) Freshwater-based drilling fluid must be used when drilling the surface hole prior to setting surface casing and when drilling through freshwater aquifers anywhere within the state of Montana.</p> <p>36.22.1013 FILING OF COMPLETION REPORTS, WELL LOGS, ANALYSES, REPORTS, AND SURVEYS</p> <p>(1) The owner or operator must run an electrical, radioactivity, or similar petrophysical log or combination of logs sufficient to determine formation tops from total depth to the base of the surface casing unless waived by the board administrator.</p> <p>(2) Within 30 days after the completion, reworking, or abandonment of any well drilled to known productive horizons within a delineated field, the operator or owner must transmit to the board three copies of Form 4, four copies of Form 2, and two copies of all well logs; drill stem test survey reports; sample and core description logs, analyses, reports, water analyses; and all other logs, surveys, and reports run or made.</p> <p>(3) In the case of a wildcat or exploratory well, the owner or operator must transmit to the board within 6 months after completion or abandonment three copies of Form 4, four copies of Form 2 and two copies of all logs, surveys, reports, and analyses run or made as described in subsection (2) . In the case of a stratigraphic well, said information must be sent to the board within three years from the date of completion.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Sundry Notices and Report of Wells, Form 2</p>	<p>36.22.1303 WELL PLUGGING REQUIREMENT</p> <p>(1) The owner shall not permit any well drilled for oil, gas, saltwater disposal, or any other purpose to remain unplugged after such well is no longer useful for the purpose for which it was drilled or converted. When a well is no longer capable of production because the underlying reservoir or reservoirs are depleted and there is no possible future use for the well in supplemental recovery operations or for disposal facilities, the operator shall within one year plug and abandon the well as set forth in this subchapter, unless otherwise authorized by the petroleum engineer or his authorized agent.</p>
<p>Well Plugging</p>	<p>Sundry Notices and Report of Wells, Form 2</p>	<p>36.22.1301 NOTICE AND APPROVAL OF INTENTION TO ABANDON REPORT</p> <p>(1) Before any work is commenced to abandon stratigraphic tests or any new well drilled in search of oil or gas, for saltwater disposal, or for any other purpose related to oil field operations in which no casing has been run, other than surface pipe, the owner thereof shall give oral notice to and obtain approval from the petroleum engineer or his authorized agent prior to commencing plugging operations. The petroleum engineer may send an authorized agent to the location specified to witness the plugging operation. Within 15 days after final abandonment, the owner shall submit to the board on Form No. 2 a subsequent report of abandonment setting forth in such report the terms and conditions of the plugging and abandonment as approved orally by the petroleum engineer or his authorized agent.</p> <p>(2) Before any work is commenced to abandon any well drilled in search of oil or gas, for saltwater disposal, or for any other purpose related to oil field operations in which casing has been run, except surface pipe, the owner thereof shall give written notice to the board on Form No. 2 setting forth the method of plugging, the depths and number of plugs, and any other information required under ARM 36.22.1305 and 36.22.1309. Upon approval of such notice by the petroleum engineer or his authorized agent, the owner may proceed with plugging and abandonment operations. The petroleum engineer may send an authorized agent to the location specified to witness the plugging operations. Within 15 days after final abandonment, the owner shall submit a subsequent report of abandonment as required by ARM 36.22.1309.</p> <p>36.22.1309 SUBSEQUENT REPORT OF ABANDONMENT</p> <p>(1) Within 15 days after the plugging of a well, the owner thereof shall file a subsequent report of abandonment with the board setting forth in detail the method used in plugging the well. Such report shall be made on Form No. 2 and shall give a detailed account of the manner in which the abandonment or plugging work was carried out, including:</p> <ul style="list-style-type: none"> (a) the nature and quantity of materials used in plugging; (b) the location and extent (by depths) of the plugs of different materials; (c) records of any tests or measurements made; (d) the amount, size, and location (by depths) of casing left in the well; and (e) a statement of the volume of mud used.

Tanks		<p>(2) If an attempt was made to part any casing, a complete report of the method used and the results obtained must be included.</p> <p>36.22.1102 FIRE WALLS REQUIRED</p> <p>When it is deemed necessary by the board to protect life, health, or property, the board may require any lease tanks or oil storage tanks to be surrounded by an earthen dike which shall have a capacity of 1 1/2 times the capacity of the tank or tanks it surrounds and which dike shall be continually maintained; and the reservoir within shall be kept free from vegetation, water, or oil.</p>
Pits	<p>Application for Permit to Construct Earthen Pit or Pond, Form 23</p>	<p>36.22.1227 EARTHEN PITS AND PONDS</p> <p>(1) No person shall construct or use an earthen pit or pond in association with a production facility without first obtaining a permit from the board. Such earthen pits or ponds that exist prior to the effective date of this rule must be permitted or closed and restored according to board specifications within 12 months after the effective date of this rule.</p> <p>(2) Earthen pits or ponds that receive produced water containing more than 15,000 parts per million (ppm) total dissolved solids (TDS) in volumes greater than five barrels per day on a monthly basis must:</p> <ul style="list-style-type: none"> (a) be constructed in cut material or at least 50 percent below original ground level; (b) be lined with an impermeable synthetic liner, or, if the bottom of the pit or pond is underlain by porous, permeable, sharp, or jagged material, the pit or pond must be lined with at least three inches of compacted bentonite prior to setting the impermeable synthetic liner; (c) be constructed above the high water table; (d) not be located in a floodplain as defined by ARM 36.15.101, or in irrigated cropland; (e) be bermed or diked and have at least three feet of freeboard at all times between the surface of the water and the top of the banks, berms, or dikes of the pit or pond; (f) be fenced, screened, and netted in accordance with ARM 36.22.1223; and (g) not be used for disposal of hazardous wastes or hazardous or deleterious substances. <p>(3) The board administrator may impose more restrictive earthen pit or pond construction or operation requirements as may be necessary to prevent degradation of water or harm to soils.</p> <p>(4) Sections (2) (a) through (2) (f) of this rule do not apply to emergency pits as allowed by ARM 36.22.1207, nor does this rule apply to temporary earthen pits, including reserve pits, approved by the board under a valid permit to drill unless such pits remain open and unrestored for more than 12 months after the cessation of drilling or completion operations.</p> <p>36.22.1207 EARTHEN PITS AND OPEN VESSELS</p> <p>(1) Waste oil, oil sludge, tank bottoms, merchantable oil, petroleum products, hazardous wastes, or hazardous or deleterious substances must not be stored, disposed of, or retained in earthen storage pits or in open vessels.</p> <p>(2) The owner or operator may make temporary use of an unlined earthen pit to retain oil or water in the event of an emergency or to retain fluids generated in recompletion or workover operation. The oil, water, and contaminants must be removed from the emergency, recompletion or workover pit within 48 hours and disposed of in a manner that will not degrade surface water or groundwater or cause harm to soils. An owner or operator must apply for and obtain a permit under ARM 36.22.1227 to construct or operate a permanent emergency pit. Repeated use of an earthen pit or pits to contain oil or water spills from an improperly or inadequately designed or maintained production facility does not constitute an "emergency" for purposes of this rule.</p>
Exempt Waste Handling		<p>36.22.1005 DRILLING WASTE DISPOSAL AND SURFACE RESTORATION</p> <p>(1) The operator of a drilling well must contain and dispose of all solid waste and produced fluids that accumulate during drilling operations so as not to degrade surface water, groundwater, or cause harm to soils. Said waste and fluids must be disposed of in accordance with all applicable local, state and federal laws and regulations.</p> <p>(2) When a salt-based or oil-based drilling fluid is used to drill a well located within a floodplain, as defined by ARM 36.15.101, or in irrigated cropland, drilling waste and produced fluids that accumulate during drilling operations must be disposed of off-site in a manner allowed by local, state, and federal laws and regulations unless an alternative on-site disposal method is approved in writing by the board administrator.</p> <p>(3) The operator of a drilling well must construct, close, and restore any reserve pits in a manner that will prevent harm to the soil and will not degrade surface waters or groundwater. When a salt-based or oil-based drilling fluid is used, the reserve pit must be lined with a synthetic liner approved by the board administrator.</p> <p>(4) Within 10 days after the cessation of drilling or completion operations, all hydrocarbons must be removed from earthen pits used in association with drilling or completion operations or such pits must be fenced, screened, and netted. Such pits that contain water with more than 15,000 parts per million total dissolved solids or salt-based drilling fluids must be fenced within 90 days after the cessation of drilling and completion operations.</p> <p>(5) Earthen pits used in association with drilling and completion operations must not be used for the disposal of any additional fluids or materials after the cessation of drilling and completion operations.</p> <p>(6) All earthen pits used in association with drilling and completion operations must be closed and the surface restored according to board specifications within one year after the cessation of drilling operations. Upon written application by the operator, an exception to the one-year pit closure requirement may be granted in writing by the board administrator upon a showing that:</p> <ul style="list-style-type: none"> (a) no dumping or disposal of waste or fluids in the pit will occur; and (b) delayed closure of the pit will not present a risk of contamination to soils or water or a hazard to animals or persons. <p>36.22.1226 DISPOSAL OF WATER</p> <p>(1) Produced water containing 15,000 parts per million (ppm) or less total dissolved solids (TDS) may be retained and disposed of in any manner allowed by law that does not degrade surface waters or groundwater or cause harm to soils.</p> <p>(2) Produced water containing more than 15,000 ppm TDS must be disposed:</p>

		<p>(a) by injection into an approved Class II injection well; or, (b) into board-approved lined or unlined earthen pits if the operator can show on permit application Form 23 that the volume of water to be disposed of per pit will not exceed five barrels per day on a monthly basis and the produced water will not degrade any existing surface water or groundwater source or cause harm to soils.</p> <p>(3) Produced water containing more than 15,000 ppm TDS may be temporarily retained in storage tanks or board-approved, lined earthen pits or ponds prior to injection. The earthen pits or ponds must be constructed and maintained in accordance with ARM 36.22.1227.</p> <p>(4) Discharges of produced water must be in compliance with all applicable local, state, and federal water quality laws and regulations.</p> <p>36.22.1105 SOLID WASTE</p> <p>(1) Solid waste associated with oil and gas exploration or production activities must be disposed of according to all applicable local, state, and federal laws and regulations.</p>
Spills		<p>36.22.1103 NOTIFICATION AND REPORT OF EMERGENCIES AND UNDESIRABLE INCIDENTS</p> <p>(1) The owner or operator of a facility must give immediate notice by telephone to an authorized representative of the board and a written report to the board administrator within five working days of any of the following emergencies:</p> <ul style="list-style-type: none"> (a) the spill, leak, or release of more than 50 barrels of oil or water containing more than 15,000 parts per million (ppm) total dissolved solids (TDS) ; (b) the spill, leak, or release of any amount of oil or of water containing more than 15,000 ppm TDS that enters surface water or groundwater; (c) the spill, leak, or release of any amount of produced water that degrades surface water or groundwater; (d) the release of any amount of gas with concentrations of 100 or more ppm hydrogen sulfide that is not immediately controlled; (e) any fire; and (f) any blowout. <p>(2) The owner or operator must file a written report with the board administrator within five working days after any of the following:</p> <ul style="list-style-type: none"> (a) the spill, leak, or release of ten (10) or more barrels of oil or water containing more than 15,000 ppm TDS that is not completely contained within tank firewalls; and (b) the escape or release of over 3,000 MCF of gas. <p>(3) The written and telephone reports referred to in parts (1) and (2) of this rule must include the following information:</p> <ul style="list-style-type: none"> (a) the location of the facility involved in sufficient detail that the site of the emergency can be readily located on the ground; (b) an estimation of the quantity of oil, water or gas lost, destroyed, or permitted to escape; (c) steps that have been or will be taken to remedy the situation and the time schedule for each; and (d) any injuries or property damage. <p>(4) The owner or operator must file with the board administrator any supplemental report that may be required by the board in connection with any individual emergency or undesirable incident.</p> <p>(5) The reporting required by this rule is in addition to all other reporting required by other applicable local, state, and federal laws and regulations.</p> <p>36.22.1104 CONTROL AND CLEANUP</p> <p>(1) The owner or operator must promptly control and clean up any leak, spill, escape, or discharge, regardless of the amount of oil, produced water, water containing more than 15,000 ppm TDS, or gas involved.</p>

Nebraska		
Topic	<u>Associated Forms</u>	Regulations: http://www.nogcc.ne.gov/Publications/NE_Rules.pdf
		Excerpted Text by Topic
Permitting	Notice of intention to Drill or Reenter, Form 2	003 FORM 2 - NOTICE OF INTENTION TO DRILL OR RE-ENTER Before any person shall commence operations for the drilling of any well, such person shall file with the Director a notice of such intent on Form 2 and must secure the Director's approval before proceeding with such operations. A copy of the approved Form 2 must be posted in a conspicuous place on the drilling rig. The Director or his authorized deputy must be notified at least twenty-four (24) hours in advance of the commencement of drilling activities. The Commission shall have the authority to revoke a permit if the Commission finds that any fraud, deceit or misrepresentation was made to obtain the approval of said permit.
Well Treatment, Stimulation and Fracturing	Well Completion or Recompletion Report, Form 5	No specific regulation located
Well Construction	Well Completion or Recompletion Report, Form 5	012 GENERAL DRILLING RULES Unless altered, modified or changed for a particular pool or pools, upon hearing before the Commission, the following shall apply to the drilling of all wells: 012.01 When drilling where high pressures are likely to exist, the owner shall take all reasonable precautions for keeping the well under control at all times and shall provide at the time the well is started proper high pressure fittings and equipment. Under such conditions, the conductor string of casing must be cemented throughout its length, unless other procedure is authorized by the Director or his authorized agent, and all strings of casing must be securely anchored. 012.02 In areas where pressures and formations are unknown, sufficient surface casing shall be run to reach a depth below the base of formations generally contributing water supplies for domestic, agricultural and municipal use as well as water bearing formations reasonably expected to be utilized for domestic, agricultural and municipal use if not presently utilized. The amount of surface casing run shall be sufficient to prevent blowouts and uncontrolled flows at reasonable depths and of sufficient size to permit the use of an intermediate string or strings of casing where necessary to control deeper blowout or uncontrolled flow sources. Surface casing shall be set in a relatively impervious formation and shall be cemented by the plug or displacement or other approved method with sufficient cement to fill the annulus to the top of the hole except in cases where unusually long strings of surface casing are required and approval is secured from the Director or his authorized agent to use other adequate methods of cementation. 012.03 In wells drilled in areas where subsurface conditions are known through drilling experience, surface casing shall be set and cemented to the surface by the pump and plug or displacement or other approved methods at a depth sufficient to protect all domestic, agricultural or municipal water supplies and to insure against blowouts or uncontrolled flows. 012.04 Cement shall be allowed to stand under pressure until the cement has reached a compressive strength of five hundred (500) pounds per square inch before drilling the plug. The term "under pressure" as used herein, will be complied with if one float valve is used or if pressure is otherwise held. All cement and cement additives used shall have been tested in accordance with API RP 10B, dated 1974, "Recommended Practices for Testing Oil-Well Cements and Cement Additives," and the results reported to the Director prior to use.
Temporary Abandonment/ Shut- in Status	Sundry Notice, Form 4	040 INACTIVE WELLS Whenever operations cease for a period of sixty (60) days on any well, the operator shall give notice to the Commission of the change to inactive status. 040.01 If it is deemed necessary to prevent migration of oil, gas, water or other substances from the formation or horizon in which it originally occurred, the well shall be plugged or repaired. If the operations on any such inactive well are not resumed within a period of one (1) year after the notice has been given, the operator of the well shall plug and abandon the well in the manner prescribed by the Director. However, upon application prior to the expiration of the one (1) year period, and for good cause shown, the Director may extend the period for one (1) year, provided that the static fluid level is established and maintained at least one hundred fifty (150) feet below the lowest fresh water zone, or the casing is pressure tested to at least three hundred (300) pounds per square inch as measured at surface to prove mechanical integrity. 040.02 Application for inactive well status must be submitted on a Form 4 and contain the following information: The type of well. The bottom hole assembly. Pressures as measured by gauge for: Tubing. Production casing annulus. Surface casing annulus. Static fluid level as measured from ground level. Method used to determine static fluid level. Date data was obtained. Information stating if any formations with reservoir pressures high enough to initiate flow into the lowermost freshwater aquifer exist.

		040.03 An additional one (1) year extension(s) may be granted in the same manner.
Well Plugging	Sundry Notice, Form 4	028 PLUGGING The requirements for plugging a well shall be as follows: 028.01 A dry or abandoned well must be plugged in such a manner that oil, gas, water or other substance shall be confined to the reservoir in which it originally occurred. The material used in plugging, whether mud-laden fluid, cement, mechanical plug or some other suitable material, must be placed in the well in a manner to permanently prevent migration of oil, gas, water or other substance from the formation or horizon in which it originally occurred. 028.02 The operator shall have the option as to the method of placing cement in the hole by (1) dump bailer, (2) pumping through tubing or drill pipe, (3) pump and plug or (4) other method approved by the Director or his authorized deputy. 028.03 No substance of any nature or description other than that normally used in plugging operations shall be placed in any well at any time during plugging operations. 028.04 In order to protect the fresh water strata, no surface casing shall be pulled from any well unless authorized by the Director. 028.05 Before a dry hole is plugged, the operator shall notify the office of the Director or his authorized deputy. 028.06 Before a producing well, or any well with production casing in the hole, is plugged, the operator shall notify the office of the Director by submitting Form 4, "Sundry Notices." Operator shall fully describe the proposed plugging and abandonment procedure on said form and shall set out the volume and position of each plug to be placed in the hole and the manner in which said plug will be positioned. A fee, paid in advance, of twenty-five dollars (\$25) and payable to the Nebraska Oil and Gas Conservation Commission must be remitted with each Form 4 which gives notice of operator's intention to abandon a well with production casing in the hole.
Tanks		024 LEASE TANK RESERVOIRS AND FIRE HAZARDS All oil storage and lease tanks must be surrounded by an earthen dike which shall provide a capacity of one and one-tenth (1-1/10) times the capacity of the largest tank it surrounds.
Pits	Retaining Pit Permit, Form 15	022 POLLUTION AND SURFACE DRAINAGE 022.12 Produced Water Pits No person shall construct or operate a pit or pond to retain produced water without first filing an application for a permit on Form 15, RETAINING PIT PERMIT, and obtaining approval from the Director. Permit numbers shall be displayed on a weatherproof sign along with the name of the operator and lease at the pit site. Pits or ponds used to evaporate or retain water which were in existence prior to the effective date of this rule must be re-permitted within one year after the effective date of this rule. If inspection indicates that the facility no longer meets the requirements of this rule, the use of the facility shall cease. Upon application, an exception to the construction and operational requirements of Section 022.12 may be granted by the Director upon showing that the pit design, in consideration of geologic and hydrodynamic conditions, will protect water, soils, wildlife, and migratory birds. 022.12A All pits or ponds used to retain produced water shall: Be constructed in cut material or at least fifty (50) percent below original ground level. Be lined with a material compatible with the waste contained. Not be located in a natural drainage and shall be constructed above the seasonal high water table. Be bermed or diked and shall have at least two (2) feet of freeboard between the normal operating level of the water in the pit and the top of the banks, dikes or berms. Be fenced, screened, or netted to prevent access by livestock, wildlife and migratory birds if free oil is likely to be discharged to the pits. Not be used for the dumping of any wastes other than produced water. Approved monitoring systems may be required if a pit is located in an area that the Commission can reasonably define as environmentally sensitive. 022.12B Unlined evaporation pits shall be allowed for produced waters containing less than ten thousand (10,000) milligrams per liter total dissolved solids. Unlined evaporation pits that receive less than five (5) barrels per day on a monthly average shall be allowed when it can be shown that the pit will not impact water, soils, wildlife and migratory birds. 022.12C Pit Lining Requirements The application for a lined pit submitted on Form 15 shall include the type and specifications of the liner to be used. All liners constructed of manufactured materials must meet or exceed the specifications set forth by the Commission. Soil mixture liners, recompacted clay liners and manufactured liners must be compatible with the waste contained. The operator must provide evidence of the chemical resistance of the liner selected for use. Manufactured liners must be installed over smooth fill subgrade which is free of pockets, loose rocks, or other materials which could damage the liner. Sand, sifted dirt, or bentonite are suggested as cushion materials if needed. At no time shall any organic material, except synthetic cushion fabric designed for that purpose, be used for a liner cushion. Liner edges must be secured to prevent wind damage. If a lined pit does not have an approved monitoring system, then it shall be drained, cleaned and inspected for leaks or holes each year. The Director may grant an exception to this pit lining requirement where, the operator shows that due to the surface or subsurface geology, the uses of the

		<p>known sources of groundwater, the permeability of the surrounding soils, or similar consideration, the known sources of underlying groundwater will not be adversely impacted.</p> <p>022.12D All retaining pits shall be kept free of surface accumulations of oil and other hydrocarbon substances and shall be cleaned within ten (10) days after the discovery of the accumulation by the operator or notice from the Commission, unless weather conditions or other conditions, as approved by the Commission, do not allow such removal within the time frame specified. In the event such removal is delayed by weather or other factors, the operator will notify the Commission on Form 4 within ten (10) working days of the operator noticing said accumulation, or of Commission notification. The notification will include an estimated time table during which the problem can be practically corrected, in an approved manner.</p> <p>022.12E This rule shall not apply to pits used in conjunction with drilling or reworking operations under a valid permit to drill unless such pit is used after the cessation of the drilling or reworking operations.</p> <p>022.12F Produced water may be discharged into pits, onto land, or into other water sources if the operator has a valid discharge permit issued under the National Pollutant Discharge Elimination System (NPDES). The operator shall file a copy of the NPDES permit with the Commission.</p> <p>022.13 Temporary Emergency Pits and Flare Pits - Operators must file a Form 15 for approval of these facilities. These pits shall be exempt from the construction and monitoring requirements of this section. Production fluid may not be retained for more than seventy-two (72) hours in any unlined pit prior to disposal.</p> <p>022.14 Pit closure must be done in accordance with a preapproved plan which must be submitted on a Form 4. Verbal notice twenty-four (24) hours prior to closure is required to provide the Commission the opportunity to witness the closure procedure. If closure plans or treatment procedures have changed from the original proposal, then a Form 4 must be resubmitted. Any wastes disposed of off-lease must be transported to an authorized disposal site. Pit solids showing high concentrations of salt (exchangeable sodium percentage above fifteen (15) by weight) must be encapsulated or chemically or mechanically treated or removed and disposed of in an authorized disposal site. Oil that may be present must be removed and recycled by commercially available utilized conventional means as soon as the weather permits or disposed of in an authorized disposal site or mixed with soil to less than one (1) percent oil content by weight when road spread, or land farmed. Dispersants, wetting agents, surface reduction agents, surfactants or other chemicals that destroy, remove or reduce the fluid seal of a pit and allow the fluids therein to seep, drain or percolate into the soil underlying the pit are prohibited. Pits cannot be used for disposal of refuse, equipment parts or unused chemicals. Proper closure of the pit is compromised by the inappropriate use of the pit for trash disposal and may result in the revocation of the permit.</p> <p>012 GENERAL DRILLING RULES</p> <p>012.11 Before commencing to drill, proper and adequate pits shall be constructed for the reception and confinement of mud and cuttings. Reserve pits used in the drilling and completion of oil and gas wells shall be designed and constructed to protect the surface and the waters of the state from pollution. For all reserve pits the minimum criteria shall be as follows: Minimum of two (2) foot freeboard is required. All topsoil shall be stockpiled on or adjacent to the location and be used for reclamation after drilling operations have been completed when practical. Reserve pits shall not contain, at anytime, any non-exempt E&P waste. The Commission may administratively approve field-wide or area-wide applications covering drilling reserve pit design and construction.</p> <p>012.12 For those reserve pits located within one-half (1/2) mile of surface waters of the state, the operator shall meet the requirements set forth in Section 012.11. Additionally, an application filed with Form 2 shall include: Drilling location layout plan. Pit size. Type of mud program. Anticipated time pit will be in use. Scaled topographic map showing the surface drainage and distance to any lakes, rivers, streams or springs.</p> <p>012.13 If salt based or oil based muds are used during the drilling program or if a salt section of sufficient thickness to affect the mud quality is anticipated, then the reserve pit design and construction shall meet the requirements of this rule and an application shall be submitted along with Form 2 for approval. Minimum design criteria shall be as follows: Steel working tanks will be required on the drilling rig circulating system. Reserve pits shall be designed to accommodate those fluids while protecting the lands and waters of the state. Soil mixture liners, recompacted clay liners and manufactured liners must be compatible with the wastes contained. The application shall include the type and specifications of the liner to be used. All liners constructed of manufactured materials must meet or exceed the specifications set forth by the Commission. Synthetic liners must be installed over smooth fill sub-grade which is free of pockets, loose rocks, or other materials which could damage the liner. Sand, sifted dirt, or bentonite are suggested as cushion material if needed. The application shall contain a plan for disposal of liquids and solids. Liner edges must be secured to prevent wind damage.</p>
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		<p>The Commission may authorize alternative methods upon review of the application.</p> <p>025 OPEN PIT STORAGE OF OIL</p> <p>The owner shall not, except during an emergency or except by special permission of the Director, permit oil to be temporarily stored or retained in earthen reservoirs or in any other receptacle that may introduce an accident or fire hazard.</p>
Exempt Waste Handling		<p>012 GENERAL DRILLING RULES</p> <p>012.14 All pits shall be backfilled within one year after completion of drilling operations. The disposal of drilling fluids, stimulation fluids or any oil field waste into any well shall be prohibited unless approved by the Director prior to disposal. Within thirty (30) days after cessation of drilling operations, non-exempt E&P waste materials including but not limited to crankcase oil shall be contained in non-leaking containers and disposed of in accordance with DEQ or any applicable federal regulations. In those areas where acceptable, and upon application and approval, land farming or land spreading of fresh water based drilling mud may be allowed on the lease.</p>
Spills		<p>022 POLLUTION AND SURFACE DRAINAGE</p> <p>Owners shall take all reasonable precaution to avoid polluting streams, underground water and land surface and soils. No oil, salt water, brackish water or other water unfit for domestic, livestock, irrigation or other general use shall be allowed to flow over the surface or into any stream or underground fresh water zone.</p> <p>022.01 Spill Reporting Requirements Any person operating any well, flowlines, receiving tanks, storage tanks, or receiving and storage receptacles into which crude oil or salt water is produced, received, or stored or through which oil or produced water is piped or transported shall notify the Director within two (2) business days of any oil and/or produced water spill, leak, or release in excess of twenty (20) barrels. The notice shall be followed within seven (7) working days by a written report. All such reports of breaks, leaks, and spills shall identify the location of the well, tank, receptacle or flowline by section, township, range, and property name so that the exact location may be readily located. Such report shall specify what steps have been taken or are in progress to remedy the situation reported and shall estimate the quantity of oil and/or produced water lost, or permitted to escape. The operator shall immediately notify the appropriate State and Federal agencies of any oil or produced water spill, leak, or release which enters any surface or ground water or flows off the lease or unit lands.</p> <p>022.02 Cleanup Standards for Crude Oil Spills - Cleanup standards set forth in this section apply to only exempt E&P spills that do not: escape off the lease or enter any surface or ground water. For all other spills operators shall notify all appropriate State and Federal agencies.</p> <p>022.03 Requirements for Cleanup Removal of Free Oil - To prevent waste and to minimize the depth of oil penetration, all free oil must be removed immediately for reclamation. Excavation - All soil containing over one (1) percent by weight total petroleum hydrocarbons must be remediated or disposed of at an authorized disposal site. Prevention of Stormwater Contamination - To prevent stormwater contamination soil excavated from the spill site containing over five (5) percent by weight total petroleum hydrocarbons must be: Mixed with clean soil to a mixture of less than five (5) percent, or Removed to an authorized disposal site, or Contained on secure location for future remediation. The operator may select any technically sound method for remediation of soil.</p> <p>022.04 Final Cleanup Level - The Commission shall have final authority to determine if remediation has achieved a cleanup level of less than one (1) percent by weight total petroleum hydrocarbons. Cleanup shall be completed as soon as technically feasible.</p> <p>022.05 Remediation Reporting Requirements - For each spill exceeding twenty (20) barrels of crude oil, the operator must submit on a Form 4 a report to the Commission which shall give the following information: A detailed description of the disposal or remediation method used. The estimated date of completion of the site cleanup. Area, maximum depth and volume in cubic yards of soil affected by crude oil. A statement signed by the operator stating that all affected soils have been treated and the surface landowner has been notified.</p> <p>022.06 Crude Oil Spills of Twenty (20) Barrels or Less - Spills into the soil of twenty (20) barrels or less of crude oil must be remediated to these standards, but are not required to be reported to the Commission.</p> <p>022.07 Cleanup Standards for Produced Water Spills - Cleanup standards set forth in this section apply to only exempt E&P spills that do not: escape off the lease or enter any surface or groundwater. For all other spills operators shall notify the appropriate State and Federal agencies.</p> <p>022.08 Standards set forth in this section do not include those produced waters released under the terms of a valid National Pollutant Discharge Elimination System (NPDES) permit.</p> <p>022.09 Requirements for Cleanup Removal of Free Water - To minimize the depth of produced water penetration, all free water must be removed for disposal. Establish Containment Systems - To minimize the extent of the affected area, temporary dikes, pits, or tanks should be used. The operator may select any technically sound method for remediation of affected soil.</p> <p>022.10 Final Cleanup Level - The Commission shall have final authority to determine if the effected land has been restored to its prior beneficial use. Cleanup shall be completed as soon as</p>

		<p>technically feasible.</p> <p>022.11 Remediation Reporting Requirements –</p> <p>For each spill exceeding twenty (20) barrels of produced water, in which the water spilled exceeds ten thousand (10,000) parts per million total dissolved solids, or a spill exceeding two hundred (200) barrels of produced water, in which the water spilled contains less than 10,000 parts per million total dissolved solids, the operator must submit on a Form 4 a report to the Commission which shall give the following information:</p> <ul style="list-style-type: none">A detailed description of the disposal or remediation method used.The estimated date of completion of the site cleanup.Area, maximum depth and volume in cubic yards of soil affected by produced water.A statement signed by the operator stating that all affected soils have been treated and the surface landowner has been notified.
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Nevada		
Topic	Associated Forms	Regulations: http://www.leg.state.nv.us/NAC/NAC-522.html
		Excerpted Text by Topic
Permitting	Application for Permit to Drill an Oil or Gas Well	<p>Nevada Administrative code NAC 522.210 Application for permit to drill.</p> <ol style="list-style-type: none"> 1. Before any well is spudded in or drilled for oil or gas, application must be made to and a permit obtained from the division. 2. The application must be made on Form 2, properly completed and accompanied by Form 1, the required fee and a location plat prepared by a land surveyor licensed in Nevada. Evidence of a federal bond for drilling on a federal lease must be included in the space provided on Form 2. 3. If the well is to be drilled on state or private land, Form 3 or 3a, properly completed, must accompany the application. <p>NAC 522.220 Time limit of permit.</p> <p>Unless operations have been commenced and the operator is proceeding with due diligence, a permit to drill or deepen a well for oil or gas expires 24 months after the date of issue.</p>
Well Treatment, Stimulation and Fracturing	Oil, Gas and Geothermal Sundry Notice and Report on Wells	No specific regulation located
Well Construction	Oil and Gas Well Completion Report	<p>NAC 522.260 Strata sealed off from other strata.</p> <ol style="list-style-type: none"> 1. During the drilling of any oil or gas well, all strata bearing oil, gas or water above the producing horizon must be sealed or separated in order to prevent their contents from passing into other strata. 2. All fresh waters and waters of value or possible value for domestic, commercial or stock purposes must be confined to their respective strata and be adequately protected by methods approved by the division. Precautions must be taken in drilling and abandoning wells to guard against any loss of any fresh water from the strata in which it occurs, and the contamination of any fresh water by objectionable water or any oil or gas. 3. The operator of any well must shut off and exclude all water from any oil-or gas-bearing stratum to the satisfaction of the division. <p>NAC 522.265 Wells drilled with rotary tools. Unless a special provision requires otherwise, the following applies to all wells drilled with rotary tools:</p> <ol style="list-style-type: none"> 1. Suitable and safe surface casing must be used in all wells for proper anchorage. In all wells being drilled, surface and other protection casing must be run to sufficient depth to afford safe control of any pressures which might be encountered and must be sufficiently tested therefor. Surface casing must be set into an impervious formation and be cemented with sufficient cement to circulate to the top of the hole. If cement does not circulate, the annulus outside the casing must be cemented before drilling plug or initiating tests. 2. On all strings of casing below surface pipe, sufficient cement must be used to fill the annular volume behind the casing for a minimum distance of 500 feet above the bottom of the casing. A cement plug or shoe must not be drilled until a minimum compressive strength of 300 pounds per square inch at bottom hole conditions has been attained according to the manufacturer's tables of cement strength for the particular cement mix being used. 3. After cementing the surface casing, each well being drilled must be equipped with adequate blowout preventers. The use of blowout equipment must be in accordance with good established oil field practice. The control equipment must include casing outlet valves with adequate provisions for mudkill and bleed-off lines of proper size and working pressure. All equipment must be in good operating condition at all times. <p>NAC 522.270 Wells drilled with cable tools. The following applies to all wells drilled with cable tools:</p> <ol style="list-style-type: none"> 1. Before drilling begins, adequate slush pits must be constructed. 2. Surface casing must be set in the same manner as described in NAC 522.265. Surface casing must be tested by bailing or pressure test to ensure a shutoff before drilling proceeds below the casing point. 3. The use of blowout equipment must be in accordance with good established oil field practice. After cementing the surface casing, a well being drilled must be equipped with adequate blowout preventers. All equipment must be in good operating condition at all times.
Temporary Abandonment/ Shut- in Status		<p>NAC 522.430 Temporary abandonment of well.</p> <ol style="list-style-type: none"> 1. Each well in which production casing has been run but which has not been operated for 1 year, and each well in which no production casing has been run and for which drilling operations have ceased for 30 days, must be immediately plugged. The administrator may, for good cause, grant an additional 6 months for the well to be plugged.
Well Plugging	Oil, Gas and Geothermal Sundry Notice and Report on Wells Oil, Gas and	<p>NAC 522.435 Notice of intention to abandon.</p> <ol style="list-style-type: none"> 1. Before beginning work for the abandonment of any well, including a well being drilled, an oil or gas well, water well or a dry hole, notice of intention to abandon must be filed with the division and approval for the abandonment must be obtained from the division. 2. The notice must: <ol style="list-style-type: none"> (a) Show the reason for abandonment; (b) Be accompanied by a detailed statement of the proposed work, including a description of the kind, location and size of plugs by depth, plans for

	Geothermal Well Plugging Report	<p>mudding, cementing, shooting, testing and removing casing, and any other pertinent information; and (c) Be filed with the division on Form 4 or, if the well is drilled on leases from the United States Government, filed by submitting to the division two copies of the notice given to the state director of the Bureau of Land Management of the Department of the Interior. 3. Oral permission obtained in advance does not relieve the operator of the necessity of filing written notice.</p> <p>NAC 522.440 Responsibility for plugging.</p> <p>The operator of any well which has been drilled for oil or gas, or any seismic, core or other exploratory hole, whether cased or uncased, is responsible for the plugging of the well or hole.</p> <p>NAC 522.445 Method of plugging.</p> <p>1. Each abandoned well or hole must be plugged by or on behalf of the owner, operator or producer who is in charge of the well and responsible for it. 2. Before any well is abandoned, it must be plugged in a manner which will permanently confine all oil, gas and water to the separate strata which originally contained them. Unless a different method and procedure is approved by the division, upon application by the owner, operator or producer on Form 4, the method and procedure for plugging the well is as follows: (a) The hole must be filled with mud-laden fluid and a permanent type of bridge plug must be placed at the top of each hydrocarbon-producing formation open to the wellbore, or a cement plug not less than 100 feet in length must be placed immediately above each hydrocarbon-producing formation open to the wellbore. (b) A cement plug not less than 100 feet in length must be placed at approximately 50 feet below and 50 feet above the interface between brackish and fresh water. (c) A 50-foot concrete plug must be placed at or near the surface of the ground in each hole. (d) The interval between plugs must be filled with heavy mud-laden fluid which will effectively seal the formation to which it is applied. (e) An uncased hole must be plugged with heavy mud up to the base of the surface string and a cement plug not less than 100 feet in length must be placed and centered as nearly as practicable at the base of the surface casing. 3. Before any hole drilled for seismic, core or other exploratory purpose is abandoned, the owner or driller must plug it so as to protect properly all water-bearing formations. The method and procedure for plugging an exploratory hole is as follows: (a) The hole must be filled to the top with the original cuttings or gravel. (b) If artesian flow is encountered, the hole must be filled with the original cuttings or gravel to 50 feet below the surface and plugged from 50 feet to the surface with concrete, to prevent the waste of water.</p> <p>NAC 522.465 Record of plugging.</p> <p>Within 30 days after the plugging of a hole or well, a record of the plugging must be submitted to the division on Form 4.</p>
Tanks		<p>NAC 522.360 Dikes and fire walls.</p> <p>Dikes or fire walls are required around permanent tanks for the storage of oil located within the corporate limits of any city or town, where tanks for storage are less than 500 feet from any highway or inhabited dwelling, less than 1,000 feet from any school or church or are so located as to be deemed by the division to be a hazard.</p>
Pits		<p>NAC 522.255 Collecting pits.</p> <p>1. No operator who conducts oil or gas development and production may use unlined collecting pits for storage and evaporation of brines from the oil field. The division may approve the use of impervious collecting pits in conjunction with approved operations for disposal of salt water. 2. The provisions of subsection 1 do not apply to burning pits which are used exclusively for the burning of the accumulated waste from the bottom of a tank.</p>
Exempt Waste Handling		<p>No specific regulation located</p>
Spills	Complaint/ Spill Report	<p>NAC 522.365 Report of fire, lightning strike, break or leak, or overflow.</p> <p>1. Each operator of an oil or gas well, pipeline, receiving tank, tank for storage or receiving or receptacle for storage in which oil or gas is produced, received or stored, or through which oil or gas is piped or transported, shall notify the division by letter, giving full details, of each: (a) Fire at a well, tank or receptacle or along a pipeline; (b) Lightning strike to a well, tank or receptacle or along a pipeline; (c) Break or leak; or (d) Overflow, which results in a loss of more than 50 barrels of oil or 1,500,000 cubic feet of gas. 2. Each report required by this section must contain: (a) A description of the location of the incident by section, township and range, designating the property with sufficient particularity to permit the division to determine the exact location of the incident; (b) Information setting forth the steps which have been taken or are being taken to remedy the situation reported; and (c) Detailed information on the amount of oil or gas lost, destroyed or permitted to escape.</p> <p>NAC 590.760 Discharges: Duties of operators.</p>

1. The operator of a storage tank shall report any discharge promptly in accordance with the requirements of NAC 445A.347 and 40 C.F.R. §§ 280.50 and 280.53.
2. As soon as possible after the discharge, the operator shall submit to the Division an application for coverage by the Fund for the discharge. The application for coverage must be submitted on the form prescribed by the Division and must include:
 - (a) A written description of how, when and where the discharge occurred;
 - (b) A description of any damage known to the operator to have been caused by the discharge; and
 - (c) If the services of a person certified as an environmental manager pursuant to NAC 459.972 or 459.9724 have been obtained, the name of that person.
3. The operator shall take all reasonable steps to protect the site of the discharge from further damage in accordance with the provisions of 40 C.F.R. §§ 280.61 and 280.62.
4. The operator shall:
 - (a) Prepare and maintain a record of all costs incurred by him in cleaning up the discharge.
 - (b) Permit the Division to inspect any property or records relating to the discharge or damage caused by the discharge.
 - (c) Notify the Division if the cost of:
 - (1) An emergency action; or
 - (2) The initial response actions and abatement measures prescribed by 40 C.F.R. §§ 280.61 and 280.62, È will exceed \$5,000.
 - (d) If the operator is seeking reimbursement by the Fund for the costs of cleaning up the tank or of liability for damages, unless an employee of the operator will be providing services that are exempted from the provisions of NAC 459.970 to 459.9729, inclusive, by subsection 1 of NAC 459.9718, obtain the services of a person who is certified as an environmental manager pursuant to NAC 459.972 or 459.9724.
 - (e) Obtain approval from the Division or secure not less than three competitive bids for a task included in a corrective action that costs more than \$3,000 if:
 - (1) The corrective action necessitated by a discharge from a storage tank is not an emergency pursuant to paragraph (c) of subsection 1 of NAC 590.710; and
 - (2) The operator is seeking reimbursement by the Fund for the costs of cleaning up the tank or of liability for damages.

NAC 459.9973 Presence of excessive petroleum in soil: Evaluation; assessment of risk; corrective action.

1. If soil exceeds the soil action level, the Division shall consider, after an initial response and abatement as prescribed in 40 C.F.R. §§ 280.60, 280.61 and 280.62, an evaluation based upon the following factors before taking any corrective action:
 - (a) The depth of groundwater;
 - (b) The distance to irrigation or drinking water wells;
 - (c) The type of soil;
 - (d) The annual precipitation;
 - (e) The type of regulated substance released;
 - (f) The extent of contamination;
 - (g) The present and potential land use;
 - (h) The preferred routes of migration;
 - (i) The location of structures or impediments;
 - (j) The potential for a hazard related to fire, vapor or explosion; and
 - (k) Any other factor that is specific to a site as determined by the Division.
2. If corrective action is required pursuant to subsection 1, the owner or operator may conduct an assessment of the site based on the risk that it poses to human health and the environment using test method E1739-95 of the American Society for Testing and Materials, or any equivalent method approved by the Division, to determine the necessary corrective action or to establish that corrective action is not necessary. A reimbursement of the cost of the assessment and the corrective action taken may be sought pursuant to the provisions of NRS 590.700 to 590.920, inclusive.
3. The Division shall determine whether an assessment complies with the requirements of test method E1739-95, or any equivalent method, and may reject, require revisions to, or withdraw its concurrence with the assessment at any time after the completion of the assessment because:
 - (a) The assessment does not comply with those requirements; or
 - (b) Conditions at the site have changed or previously unidentified or new information has become available which may have a detrimental impact on human health or the environment, unless the new condition or information would not alter the results of the assessment.
4. The Division shall provide written notice of its determination and the reasons for rejecting or requiring revisions to the assessment to the owner or operator. The owner or operator may submit a revised assessment to the Division or take the appropriate corrective action.
5. Unless the assessment is rejected or returned for revisions, the Division shall consider the results of the assessment pursuant to the evaluation of the level of petroleum hydrocarbons in the soil and the points of compliance to be elements of the plan for corrective action.
6. If corrective action is proposed pursuant to the requirements of this section or NAC 459.9976 or 459.9977, the owner or operator of a storage tank and his environmental manager, if applicable, shall prepare and submit to the Division a written certification that the corrective action selected is cost-effective.
7. As used in this section, "soil action level" means the presence in soil of a petroleum substance in excess of 100 milligrams per kilogram measured by using the analytical test method 8015 modified for petroleum hydrocarbons, or any other method approved by the Division.

NAC 459.9975 Monitoring of groundwater.

1. If a regulated substance is detected in or is suspected to have contaminated groundwater, the owner or operator shall, with the approval of the Division, install at least one monitoring well. The number of wells and the location, design and installation of each well must be approved by the Division of Water Resources of the Department and the Division.
2. Monitoring of groundwater must be conducted for:

		<p>(a) Benzene, toluene, xylene, and ethylbenzene (BTEX), by test method 8260 of the Environmental Protection Agency or an equivalent method that is approved by the Division;</p> <p>(b) If suspected or detected, methyl tertiary-butyl ether (MTBE), by test method 8260 of the Environmental Protection Agency or an equivalent method that is approved by the Division;</p> <p>(c) Any other pollutant that is present in the groundwater as a result of the action of the owner or operator; and</p> <p>(d) Any other constituent as directed by the Division.</p> <p>NAC 459.9976 Corrective action required when excessive petroleum floating on surface of water of aquifer.</p> <ol style="list-style-type: none">1. The owner or operator shall take corrective action if the free product action level is exceeded.2. As used in this section, "free product action level" means the presence of 1/2 inch or more of a petroleum substance that is free-floating on the surface of the water of an aquifer using a measurement of accuracy of .01 feet.
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New Mexico		
Topic	<u>Associated Forms</u>	Regulations: http://www.emnrd.state.nm.us/oed/documents/RULEBOOK07-02-14_001.pdf
Excerpted Text by Topic		
Permitting	Application for Permit to Drill, Re-enter, Deepen, Plugback or Add a Zone, Form C-101	<p>Title 19 Natural Resources and Wildlife 19.15.3.102 PERMIT TO DRILL, DEEPEN OR PLUG BACK:</p> <p>A. The operator shall obtain a permit prior to commencing drilling, deepening or re-entry operations, or before plugging a well back to a different pool or completing or re-completing a well in an additional pool. B. Applicants shall file a complete form C-101, application for permit to drill, deepen or plug back, and complete form C-102, well location and acreage dedication plat, and meet the following requirements, if applicable: (1) an applicant for a permit to drill any well within the corporate limits of any city, town or village of this state shall give notice to the duly constituted governing body of such city, town or village or its duly authorized agent and certify on form C-101 that it gave such notice; C. The division director or his designee may deny a permit to drill, deepen or plug back if the applicant is not in compliance with Subsection A of 19.15.1.40 NMAC. In determining whether to grant or deny the permit, the division director or his designee shall consider such factors as whether the non-compliance with Subsection A of 19.15.1.40 NMAC is caused by the operator not meeting the financial assurance requirements of 19.15.3.101 NMAC, being subject to a division or commission order finding the operator to be in violation of an order requiring corrective action, having a penalty assessment that has been unpaid for more than 70 days since the issuance of the order assessing the penalty or having more than the allowed number of wells out of compliance with 19.15.4.201 NMAC. If the non-compliance is caused by the operator having more than the allowed number of wells not in compliance with 19.15.4.201 NMAC, the division director or his designee shall consider the number of wells not in compliance, the length of time the wells have been out of compliance and the operator's efforts to bring the wells into compliance. D. The division may impose conditions on an approved permit to drill, deepen or plug back.</p>
Well Treatment, Stimulation and Fracturing	Well Completion or Recompletion Report and Log, Form C-105	<p>19.15.3.113 SHOOTING AND CHEMICAL TREATMENT OF WELLS:</p> <p>If injury results to the producing formation, injection interval, casing or casing seat from shooting, fracturing, or treating a well and which injury may create underground waste or contamination of fresh water, the operator shall give written notice to the division within five (5) working days and proceed with diligence to use the appropriate method and means for rectifying such damage. If shooting, fracturing, or chemical treating results in irreparable injury to the well the division may require the operator to properly plug and abandon the well.</p>
Well Construction	Well Completion or Recompletion Report and Log, Form C-105 Sundry Notices and Reports on Well, Form C-103	<p>19.15.3.106 SEALING OFF STRATA:</p> <p>A. During the drilling of any oil well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata. B. All fresh waters and waters of present or probable value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the division. Special precautions by methods satisfactory to the division shall be taken in drilling and abandoning wells to guard against any loss of artesian water from the strata in which it occurs, and the contamination of artesian water by objectionable water, oil, or gas. C. All water shall be shut off and excluded from the various oil- and gas-bearing strata which are penetrated. Water shut-offs shall ordinarily be made by cementing casing.</p> <p>19.15.3.107 CASING AND TUBING REQUIREMENTS:</p> <p>A. Any well drilled for oil or natural gas shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of oil- and gas-bearing strata encountered in the well, including the one(s) to be produced. B. Sufficient cement shall be used on surface casing to fill the annular space behind the casing to the top of the hole, provided however, that authorized field personnel of the division may, at their discretion, allow exceptions to the foregoing requirement when known conditions in a given area render compliance impracticable. C. All cementing shall be by pump and plug method unless some other method is expressly authorized by the division. D. All cementing shall be with conventional-type hard-setting cements to which such additives (lighteners, densifiers, extenders, accelerators, retarders, etc.) have been added to suit conditions in the well. E. Authorized field personnel of the division may, when conditions warrant, allow exceptions to the above paragraph and permit the use of oil-base casing packing material in lieu of hard-setting cements on intermediate and production casing strings; provided however, that when such materials are used on the intermediate casing string, conventional-type hard-setting cements shall be placed throughout all oil- and gas-bearing zones and throughout at least the lowermost 300 feet of the intermediate casing string. When such materials are used on the production casing string, conventional-type hard-setting cements shall be placed throughout all oil- and gas-bearing zones and shall extend upward a minimum of 500 feet above the uppermost perforation or, in the case of an open-hole completion, 500 feet above the production casing shoe. F. All casing strings shall be tested and proved satisfactory as provided in Subsection I. below. G. After cementing, but before commencing tests required in Subsection I. below, all casing strings shall stand cemented in accordance with Option 1 or 2 below. Regardless of which option is taken, the casing shall remain stationary and under pressure for at least eight hours after the cement has been placed. Casing shall be "under pressure" if some acceptable means of holding pressure is used or if one or more float valves are employed to hold the cement in place.</p>

		<p>(1) Option 1 Allow all casing strings to stand cemented a minimum of eighteen (18) hours prior to commencing tests. Operators using this option shall report on Form C-103 the actual time the cement was in place before initiating tests.</p> <p>(2) Option 2 (May be used in the counties of San Juan, Rio Arriba, McKinley, Sandoval, Lea, Eddy, Chaves, and Roosevelt only.) Allow all casing strings to stand cemented until the cement has reached a compressive strength of at least 500 pounds per square inch in the "zone of interest" before commencing tests, provided however, that no tests shall be commenced until the cement has been in place for at least eight (8) hours.</p> <p>(a) The "zone of interest" for surface and intermediate casing strings shall be the bottom 20 percent of the casing string, but shall be no more than 1000 feet nor less than 300 feet of the bottom-part of the casing unless the casing is set at less than 300 feet. The "zone of interest" for production casing strings shall include the interval or intervals where immediate completion is contemplated.</p> <p>(b) To determine that a minimum compressive strength of 500 pounds per square inch has been attained, operators shall use the typical performance data for the particular cement mix used in the well, at the minimum temperature indicated for the zone of interest by Figure 107-A, Temperature Gradient Curves. Typical performance data used shall be that data furnished by the cement manufacturer or by a competent materials testing agency, as determined in accordance with the latest edition of API Code RP 10 B "Recommended Practice for Testing Oil-Well Cements." (See Temperature Gradient - Page 17A)</p> <p>H. Operators using the compressive strength criterion (Option 2) shall report the following information on Form C-103:</p> <p>(1) Volume of cement slurry (cubic feet) and brand name of cement and additives, percent additives used, and sequence of placement if more than one type cement slurry is used.</p> <p>(2) Approximate temperature of cement slurry when mixed.</p> <p>(3) Estimated minimum formation temperature in zone of interest.</p> <p>(4) Estimate of cement strength at time of casing test.</p> <p>(5) Actual time cement in place prior to starting test.</p> <p>I. All casing strings except conductor pipe shall be tested after cementing and before commencing any other operations on the well. Form C-103 shall be filed for each casing string reporting the grade and weight of pipe used. In the case of combination strings utilizing pipe of varied grades or weights, the footage of each grade and weight used shall be reported. The results of the casing test, including actual pressure held on pipe and the pressure drop observed shall also be reported on the same Form C-103.</p> <p>(1) Casing strings in wells drilled with rotary tools shall be pressure tested. Minimum casing test pressure shall be approximately one-third of the manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 pounds per square inch and need not be greater than 1500 pounds per square inch. In cases where combination strings are involved, the above test pressure shall apply to the lowest pressure rated casing used. Test pressures shall be applied for a period of 30 minutes. If a drop of more than 10 percent of the test pressure should occur, the casing shall be considered defective and corrective measures shall be applied.</p> <p>(2) Casing strings in wells drilled with cable tools may be tested as outlined in Subsection I, Paragraph (1) above, or by bailing the well dry in which case the hole must remain satisfactorily dry for a period of at least one (1) hour before commencing any further operations on the well.</p> <p>J. Well Tubing Requirements</p> <p>(1) All flowing oil wells equipped with casing larger in size than 2 7/8-inch OD shall be tubed.</p> <p>(2) All gas wells equipped with casing larger in size than 3 1/2-inch OD shall be tubed.</p> <p>(3) Tubing shall be set as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone.</p> <p>(4) The supervisor of the appropriate division district office, upon application, may grant exceptions to these requirements, provided waste will not be caused.</p> <p>(5) The supervisor may request that an application be reviewed by the Director. The operator shall submit information and give notice as requested by the Director. Unprotected applications may be approved after 20 days of receipt of the application and supporting information. If the application is protested, or the Director so decides, the application shall be set for hearing.</p> <p>19.15.3.110 PULLING OUTSIDE STRINGS OF CASING:</p> <p>In pulling outside strings of casing from any oil or gas well, the space outside the casing left in the hole shall be kept and left full of mud-laden fluid or cement of adequate specific gravity to seal off all fresh and salt water strata and any strata bearing oil or gas not producing.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Sundry Notices and Reports on Well, Form C-103</p>	<p>19.15.4.203 APPROVED TEMPORARY ABANDONMENT:</p> <p>A. Approved temporary abandonment. The division may place any well in approved temporary abandonment for a period of up to five years. Prior to the expiration of any approved temporary abandonment the operator shall return the well to beneficial use under a plan the division approves, permanently plug and abandon said well and restore and remediate the location or apply for a new approval to temporarily abandon the well.</p> <p>B. Request for approval and permit.</p> <p>(1) Any operator seeking approval for approved temporary abandonment shall submit on form C-103, sundry notices and reports on wells, and a notice of intent to seek approved temporary abandonment for the well describing the proposed temporary abandonment procedure to be used. The operator shall not commence any work until approved by the division. The operator shall give 24 hours notice to the appropriate district office of the division before beginning work.</p> <p>(2) The division shall not approve temporary abandonment until the operator furnishes evidence demonstrating that such well's casing and cementing are mechanically and physically sound and in such condition as to prevent:</p> <p>(a) damage to the producing zone;</p> <p>(b) migration of hydrocarbons or water;</p> <p>(c) the contamination of fresh water or other natural resources; and</p> <p>(d) the leakage of any substance at the surface.</p> <p>(3) The operator shall demonstrate both internal and external mechanical integrity pursuant to Paragraphs (1), (2) and (3) of Subsection C of 19.15.4.203 NMAC.</p>

		<p>(4) Upon successful completion of the work on the temporarily abandoned well, the operator shall submit a request for approved temporary abandonment to the appropriate district office on form C-103 together with such other information as is required by Subsection E of 19.15.13.1103 NMAC.</p> <p>(5) The division shall specify the permit's expiration date, which shall be not more than five years from the date of approval.</p> <p>C. Demonstrating mechanical integrity.</p> <p>(1) The following methods of demonstrating internal casing integrity for wells to be placed in approved temporary abandonment:</p> <p>(a) the operator may set a cast iron bridge plug within 100 feet of uppermost perforations or production casing shoe, load the casing with inert fluid and pressure test to 500 pounds per square inch surface pressure with a pressure drop of not more than 10 percent over a 30 minute period;</p> <p>(b) the operator may run a retrievable bridge plug or packer to within 100 feet of uppermost perforations or production casing shoe, and test the well to 500 pounds per square inch surface pressure for 30 minutes with a pressure drop of not greater than 10 percent over a 30 minute period; or</p> <p>(c) the operator may demonstrate that the well has been completed for less than five years and has not been connected to a pipeline.</p> <p>(2) During the testing described in Subparagraphs (a) and (b) of Paragraph (1) of Subsection C of 19.15.4.203 NMAC the operator shall:</p> <p>(a) open all casing valves during the internal pressure tests and report any flow or pressure change occurring immediately before, during or immediately after the 30 minute pressure test;</p> <p>(b) top off the casing with inert fluid prior to leaving the location;</p> <p>(c) report any flow during the test in Subparagraph (b) of Paragraph (1) of Subsection C of 19.15.4.203 NMAC to the division district office prior to completion of the temporary abandonment operations; the division may require remediation of the flow prior to approving temporary abandonment of the well.</p> <p>(3) An operator may use any method approved by the United States environmental protection agency in 40 C.F.R. 146.8(c) to demonstrate external casing and cement integrity for wells to be placed in approved temporary abandonment.</p> <p>(4) The division shall not accept mechanical integrity tests or logs conducted more than 12 months prior to submittal.</p> <p>(5) The operator shall record mechanical integrity tests on a chart recorder with a maximum two hour clock and maximum 1000 pound spring, which has been calibrated within the six months prior to conducting the test. All witnesses to the test shall sign the chart. The operator shall submit the chart with form C-103 requesting approved temporary abandonment.</p> <p>(6) The division may approve other testing methods the operator proposes if the operator demonstrates that the test will satisfy the requirements of Paragraph (2) of Subsection B of 19.15.14.203 NMAC.</p>
Well Plugging	Sundry Notices and Reports on Well, Form C-103	<p>19.15.4.202 PLUGGING AND PERMANENT ABANDONMENT:</p> <p>A. Notice of Plugging</p> <p>(1) Notice of intention to plug must be filed with the Division on Form C-103, Sundry Notices and Reports on Wells, by the operator prior to the commencement of plugging operations, which notice must provide all of the information required by Rule 1103 including operator and well identification and proposed procedures for plugging said well, and in addition the operator shall provide a well-bore diagram showing the proposed plugging procedure. Twenty-four hours notice shall be given prior to commencing any plugging operations. In the case of a newly drilled dry hole, the operator may obtain verbal approval from the appropriate District Supervisor or his representative of the method of plugging and time operations are to begin. Written notice in accordance with this rule shall be filed with the Division ten (10) days after such verbal approval has been given.</p> <p>B. Plugging</p> <p>(1) Before any well is abandoned, it shall be plugged in a manner which will permanently confine all oil, gas and water in the separate strata in which they are originally found. This may be accomplished by using mud-laden fluid, cement and plugs singly or in combination as approved by the Division on the notice of intention to plug.</p>
Tanks		<p>19.15.5.310 TANKS, OIL TANKS, FIRE WALLS, AND TANK IDENTIFICATION:</p> <p>A. Oil shall not be stored or retained in earthen reservoirs, or in open receptacles. Dikes or fire walls shall not be required except such fire walls must be erected and kept around all permanent oil tanks, or battery of tanks that are within the corporate limits of any city, town or village, or where such tanks are closer than 150 feet to any producing oil or gas well or 500 feet to any highway or inhabited dwelling or closer than 1000 feet to any school or church, or where such tanks are so located as to be deemed an objectional hazard within the discretion of the division. Where fire walls are required, fire walls shall form a reservoir having a capacity one-third larger than the capacity of the enclosed tank or tanks.</p> <p>B. After August 1, 1982, all oil tanks, tank batteries, automatic custody transfer systems, tanks used for salt water collection or disposal, and tanks used for sediment oil treatment or storage shall be identified by a sign posted on or not more than 50 feet from the tank, tank battery, or system. Such signs shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet and shall identify the name of the operator, the name of the lease(s) being served by the tank(s) or system, if any, and the location of such tank(s) or system by unit letter, section, township, and range.</p>
Pits	Application for Permit to Drill, Re-enter, Deepen, Plugback or Add a Zone, Form C-101	<p>19.15.2.50 PITS AND BELOW-GRADE TANKS:</p> <p>A. Permit required. Discharge into, or construction of, any pit or below-grade tank is prohibited absent possession of a permit issued by the division, unless otherwise herein provided or unless the division grants an exemption pursuant to Subsection G of 19.15.2.50 NMAC. Facilities permitted by the division pursuant to Section 711 of 19.15.9 NMAC or water quality control commission regulations are exempt from Section 50 of 19.15.2 NMAC.</p> <p>B. Application.</p> <p>(1) Where filed; application form.</p>

Sundry Notices and Reports on Well, Form C-103

Pit or Below Grade Tank Registration or Closure, Form C-144

(a) Downstream facilities. An operator shall apply to the division's environmental bureau for a permit to construct or use a pit or below-grade tank at a downstream facility such as a refinery, gas plant, compressor station, brine facility, service company or surface waste management facility that is not permitted pursuant to Section 711 of 19.15.9 NMAC or water quality control commission regulations. The operator shall use a form C-144, application to discharge into a pit or below-grade tank. The operator may submit the form separately or as an attachment to an application for a discharge permit, best management practices permit, surface waste management facility permit or other permit.

(b) Drilling or production. An operator shall apply to the appropriate district office for a permit for use of a pit or below-grade tank in drilling, production or operations not otherwise identified in Subparagraph (a), Paragraph (1), Subsection B of 19.15.2.50 NMAC. The operator shall apply for the permit on the application for permit to drill or on the sundry notices and reports on wells, or electronically as otherwise provided in this chapter. Approval of such form constitutes a permit for all pits and below-grade tanks annotated on the form. A separate Form C-144 is not required.

(2) General permit; individual permit. An operator may apply for a permit to use an individual pit or below-grade tank, or may apply for a general permit applicable to a class of like facilities.

(3) When filed.

(a) New pits or new below-grade tanks. After April 15, 2004, operators shall obtain a permit before constructing a pit or below-grade tank.

(b) Existing pits or new below-grade tanks. For each pit or below-grade tank in existence on April 15, 2004 that has not received an exemption after hearing as allowed by OCC Order R-3221 through R-3221D inclusive, the operator shall submit a notice not later than April 15, 2004 indicating either that use of the pit or below-grade tank will continue or that such pit or below grade tank will be closed. If use of a pit or below-grade tank is to be discontinued, discharge into the pit or use of the below-grade tank shall cease not later than June 30, 2005. If use of a pit or below-grade tank will continue, the operator shall file a permit application not later than September 30, 2004. If an operator files a timely, administratively complete application for continued use, use of the pit or below-grade tank may continue until the division acts upon the permit application.

C. Design, construction and operational standards.

(1) In general. Pits, sumps and below-grade tanks shall be designed, constructed and operated so as to contain liquids and solids to prevent contamination of fresh water and protect public health and the environment.

(2) Special requirements for pits.

(a) Location. No pit shall be located in any watercourse, lakebed, sinkhole or playa lake. Pits adjacent to any such watercourse or depression shall be located safely above the ordinary high-water mark of such watercourse or depression. No pit shall be located in any wetland. The division may require additional protective measures for pits located in groundwater sensitive areas or wellhead protection areas.

(b) Liners.

(i) Drilling pits, workover pits. Each drilling pit or workover pit shall contain, at a minimum, a single liner appropriate for conditions at the site. The liner shall be designed, constructed and maintained so as to prevent the contamination of fresh water, and protect public health and the environment. Pits used to vent or flare gas during drilling or workover operations that are designed to allow liquids to drain to a separate pit do not require a liner.

(ii) Disposal or storage pits. Each disposal pit (including, but not limited to, any separator pit, tank drain pit, evaporation pit, blowdown pit used in production activities, pipeline drip pit, or production pit) and each storage pit (including any brine pit, salt water pit, fluid storage pit for an LPG system, or production pit) shall contain, at a minimum, a primary and a secondary liner appropriate to the conditions at the site. Liners shall be designed, constructed and maintained so as to prevent the contamination of fresh water, and protect public health and the environment.

(iii) Alternative liner media. The division may approve liners that are not constructed in accordance with division guidelines only if the operator demonstrates to the division's satisfaction that the alternative liner protects fresh water, public health and the environment as effectively as those prescribed in division guidelines.

(c) Leak detection. A leak detection system shall be installed between the primary and secondary liner in each disposal or storage pit. The leak detection system shall be designed, installed and operated so as to prevent the contamination of fresh water, and protect public health and the environment. The operator shall notify the division at least twenty-four hours prior to installation of the primary liner so a division representative may inspect the leak detection system before it is covered.

(d) Drilling and workover pits. Each drilling or workover pit shall be of an adequate size to assure that a supply of fluid is available and sufficient to confine oil, natural gas or water within its native strata. Hydrocarbon-based drilling fluids shall be contained in tanks made of steel or other division-approved material.

(e) Disposal or storage pits. No measurable or visible layer of oil may be allowed to accumulate or remain anywhere on the surface of any pit. Spray evaporation systems shall be operated such that all spray-borne suspended or dissolved solids remain within the perimeter of the pond's lined portion.

(f) Fencing and netting. All pits shall be fenced or enclosed to prevent access by livestock, and fences shall be maintained in good repair. Active drilling or workover pits may have a portion of the pit unfenced to facilitate operations. In issuing a permit, the division may impose additional fencing requirements for protection of wildlife in particular areas. All tanks exceeding 16 feet in diameter, exposed pits, and ponds shall be screened, netted, covered, or otherwise rendered non-hazardous to migratory birds. Drilling and workover pits are exempt from the netting requirement. Immediately after cessation of these operations such pits shall have any visible or measurable layer of oil removed from the surface. Upon written application, the division may grant an exception to screening, netting or covering requirements upon a showing that an alternative method will adequately protect migratory birds or that the tank or pit is not hazardous to migratory birds.

(g) Unlined pits.

(i) General prohibition. After June 30, 2005 use of, or discharge into, any unlined pit that has not been previously permitted pursuant to Section 711 of 19.15.9 NMAC or water quality control commission regulations is prohibited, except as otherwise provided in Section 50 of 19.15.2 NMAC. After April 15, 2004, construction of unlined pits is prohibited unless otherwise provided in Section 50 of 19.15.2 NMAC.

(ii) Unlined pits exempted by previous order. An operator of an unlined pit existing on April 15, 2004 for which a previous exemption was received after hearing as allowed pursuant to commission Orders No. R-3221 through R-3221D inclusive, shall not be required to reapply for an exemption pursuant to Subparagraph (g), Paragraph (2), Subsection C of 19.15.2.50 NMAC provided the operator notifies the division, no later than April 15, 2004, of the existence of each unlined pit it believes is exempted by order, the location of the pit, and the nature and amount of any discharge into the pit. Such

	<p>order shall constitute a permit for the purpose of Subparagraph (g), Paragraph (2), Subsection C of 19.15.2.50 NMAC. The division may terminate any such permit in accordance with Paragraph (2), Subsection C of 19.15.2.50 NMAC. Any pit constructed after April 15, 2004 shall comply with the Permitting, lining and other requirements of Section 50 of 19.15.2 NMAC, notwithstanding any previous order to the contrary.</p> <p>(iii) Unlined pits shall be allowed in the following areas provided that the operator has submitted, and the division has approved, an application for permit as provided in Section 50 of 19.15.2 NMAC, and provided that the pit site is not located in fresh water-bearing alluvium or in a wellhead protection area:</p> <p>(3) Special requirements for below-grade tanks. All below-grade tanks constructed after April 15, 2004 shall be constructed with secondary containment and leak detection. The operator of any below-grade tank constructed prior to April 15, 2004 shall test its integrity annually and shall promptly repair or replace any below-grade tank that does not demonstrate integrity. Any such below-grade tank shall be equipped with leak detection at the time of any major repair.</p> <p>(4) Sumps. Operators shall test the integrity of all sumps annually, and shall promptly repair or replace any sump that does not demonstrate integrity. Sumps that can be removed from their emplacements may be tested by visual inspection. Other sumps shall be tested by appropriate mechanical means.</p> <p>D. Emergency actions.</p> <p>(1) Permit not required. In an emergency an operator may construct a pit without a permit to contain fluids, solids or wastes if an immediate danger to fresh water, public health or the environment exists.</p> <p>(2) Construction standards. A pit constructed in an emergency shall be constructed, to the extent possible given the emergency, in a manner that is consistent with the requirements of Section 50 of 19.15.2 NMAC and that prevents the contamination of fresh water, and protects public health and the environment.</p> <p>(3) Notice. The operator shall notify the appropriate district office as soon as possible (if possible before construction begins) of the need for construction of such a pit.</p> <p>(4) Use and duration. The pit may be used only for the duration of the emergency. If the emergency lasts more than forty-eight (48) hours, the operator must seek approval from the division for continued use of the pit. All fluids, solids or wastes must be removed within 24 hours after cessation of use unless the division extends that time period.</p> <p>(5) "Emergency pits." Subsection D, of 19.15.2.50 NMAC shall not be construed to allow construction or use of so-called "emergency pits", which are pits constructed as a precautionary matter to contain a spill in the event of a release. Construction or use of any such pit shall require a permit issued pursuant to Section 50 of 19.15.2 NMAC unless the pit is described in a spill prevention, control and countermeasure (SPCC) plan required by the United States environmental protection agency, all fluids are removed from the pit within 24 hours and the operator has filed a notice of the location of the pit with the division.</p> <p>E. Drilling fluids and drill cuttings. Drilling fluids and drill cuttings shall either be recycled or be disposed of as approved by the division and in a manner to prevent the contamination of fresh water and protect public health and the environment. The operator shall describe the proposed disposal method in the application for permit to drill or the sundry notices and reports on wells.</p> <p>F. Closure and restoration.</p> <p>(1) Closure. Except as otherwise specified in Section 50 of 19.15.2 NMAC, a pit or below-grade tank shall be properly closed within six months after cessation of use. As a condition of a permit, the division may require the operator to file a detailed closure plan before closure may commence. The division for good cause shown may grant a six-month extension of time to accomplish closure. Upon completion of closure a closure report (form C- 144), or sundry notices and reports on wells shall be submitted to the division. Where the pit's contents will likely migrate and cause ground water or surface water to exceed water quality control commission standards, the pit's contents and the liner shall be removed and disposed of in a manner approved by the division.</p> <p>(2) Surface restoration. Within one year of the completion of closure of a pit, the operator shall contour the surface where the pit was located to prevent erosion and ponding of rainwater.</p> <p>G. Exemptions; additional conditions.</p> <p>(1) The division may attach additional conditions to any permit upon a finding that such conditions are necessary to prevent the contamination of fresh water, or to protect public health or the environment.</p> <p>(2) The division may grant an exemption from any requirement if the operator demonstrates that the granting of such exemption will not endanger fresh water, public health or the environment. The division may revoke any such exemption after notice to the operator of the pit and opportunity for a hearing if the division determines that such action is necessary to prevent the contamination of fresh water, or to protect public health or the environment.</p> <p>(3) Exemptions may be granted administratively without hearing provided that the operator gives notice to the surface owner of record where the pit is to be located and to such other persons as the division may direct and (a) written waivers are obtained from all persons to whom notice is required, or (b) no objection is received by the division within 30 days of the time notice is given. If any objection is received and the director determines that the objection has technical merit or that there is significant public interest the director shall set the application for hearing. The director, however, may set any application for hearing.</p>
<p>Exempt Waste Handling</p>	<p>19.15.2.52 DISPOSITION OF PRODUCED WATER AND OTHER OIL FIELD WASTE:</p> <p>A. Prohibited dispositions. Except as authorized by 19.15.1.19 NMAC, 19.15.2.50 NMAC, 19.15.2.53 NMAC, 19.15.3.116 NMAC or 19.15.9.701 NMAC, no person, including a transporter, shall dispose of produced water or other oil field waste:</p> <p>(1) on or below the surface of the ground; in a pit; or in a pond, lake, depression or watercourse;</p> <p>(2) in another place or in a manner that may constitute a hazard to fresh water, public health, safety or the environment; or</p> <p>(3) in a permitted pit or registered or permitted surface waste management facility without the permission of the owner or operator of the pit or facility.</p> <p>B. Authorized disposition of produced water. The following methods of disposition of produced water are authorized:</p> <p>(1) in a manner that does not constitute a hazard to fresh water, public health, safety or the environment, delivery to a permitted salt water disposal well or facility, secondary recovery or pressure maintenance injection facility, surface waste management facility or disposal pit permitted pursuant to</p>

19.15.2.50 NMAC or to a drill site for use in drilling fluid; or
 (2) use in accordance with a division-issued use permit or other division authorization.

C. Authorized dispositions of other oil field waste.
 Persons shall dispose of other oil field waste by transfer to an appropriate permitted or registered surface waste management facility or injection facility or applied to a division-authorized beneficial use. Persons may transport recovered drilling fluids to other drill sites for reuse provided that such fluids are transported and stored in a manner that does not constitute a hazard to fresh water, public health, safety or the environment.

19.15.36.13 Siting and operational requirements applicable to all permitted surface waste management facilities:

Except as otherwise provided in 19.15.36 NMAC.

A. Depth to ground water.
 (1) No landfill shall be located where ground water is less than 100 feet below the lowest elevation of the design depth at which the operator will place oil field waste.
 (2) No landfarm that accepts soil or drill cuttings with a chloride concentration that exceeds 500 mg/kg shall be located where ground water is less than 100 feet below the lowest elevation at which the operator will place oil field waste. See Subsection A of 19.15.36.15 NMAC for oil field waste acceptance criteria.
 (3) No landfarm that accepts soil or drill cuttings with a chloride concentration that is 500 mg/kg or less shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.
 (4) No small landfarm shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.
 (5) No other surface waste management facility shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.

B. No surface waste management facility shall be located:
 (1) within 200 feet of a watercourse, lakebed, sinkhole or playa lake;
 (2) within an existing wellhead protection area or 100-year floodplain;
 (3) within, or within 500 feet of, a wetland;
 (4) within the area overlying a subsurface mine;
 (5) within 500 feet from the nearest permanent residence, school, hospital, institution or church in existence at the time of initial application; or
 (6) within an unstable area, unless the operator demonstrates that engineering measures have been incorporated into the surface waste management facility design to ensure that the surface waste management facility's integrity will not be compromised.

C. No surface waste management facility shall exceed 500 acres.

D. The operator shall not accept oil field wastes transported by motor vehicle at the surface waste management facility unless the transporter has a form C-133, authorization to move liquid waste, approved by the division.

E. The operator shall not place oil field waste containing free liquids in a landfill or landfarm cell. Operators shall use the paint filter test, as prescribed by the EPA (EPA SW-846, method 9095) to determine conformance of the oil field waste to this criterion.

F. Surface waste management facilities shall accept only exempt or non-hazardous waste, except as provided in Paragraph (3) of Subsection F of 19.15.36.13 NMAC. The operator shall not accept hazardous waste at a surface waste management facility. The operator shall not accept wastes containing regulated naturally occurring radioactive material (NORM) at a surface waste management facility except as provided in Subsection C of 19.15.9.714 NMAC. The operator shall require the following documentation for accepting oil field wastes, and both the operator and the generator shall maintain and make the documentation available for division inspection.
 (1) Exempt oil field wastes. The operator shall require a certification on form C-138, signed by the generator or the generator's authorized agent, that represents and warrants that the oil field wastes are generated from oil and gas exploration and production operations, are exempt waste and are not mixed with non-exempt waste. The operator shall have the option to accept such certifications on a monthly, weekly or per load basis. The operator shall maintain and shall make the certificates available for the division's inspection.
 (2) Non-exempt, non-hazardous, oil field wastes. The operator shall require a form C-138, oil field waste document, signed by the generator or its authorized agent. This form shall be accompanied by acceptable documentation to determine that the oil field waste is non-hazardous.
 (3) Emergency non-oil field wastes. The operator may accept non-hazardous, non-oil field wastes in an emergency if ordered by the department of public safety. The operator shall complete a form C-138, oil field waste document, describing the waste, and maintain the same, accompanied by the department of public safety order, subject to division inspection.

G. The operator of a commercial facility shall maintain records reflecting the generator, the location of origin, the location of disposal within the commercial facility, the volume and type of oil field waste, the date of disposal and the hauling company for each load or category of oil field waste accepted at the commercial facility. The operator shall maintain such records for a period of not less than five years after the commercial facility's closure, subject to division inspection.

H. Disposal at a commercial facility shall occur only when an attendant is on duty unless loads can be monitored or otherwise isolated for inspection before disposal. The surface waste management facility shall be secured to prevent unauthorized disposal.

I. To protect migratory birds, tanks exceeding eight feet in diameter, and exposed pits and ponds shall be screened, netted or covered. Upon the operator's written application, the division may grant an exception to screening, netting or covering upon the operator's showing that an alternative method will protect migratory birds or that the surface waste management facility is not hazardous to migratory birds. Surface waste management facilities shall be fenced in a manner approved by the division.

J. Surface waste management facilities shall have a sign, readable from a distance of 50 feet and containing the operator's name; surface waste management facility permit or order number; surface waste management facility location by unit letter, section, township and range; and emergency telephone numbers.

K. Operators shall comply with the spill reporting and corrective action provisions of 19.15.1.19 or 19.15.3.116 NMAC.

L. Each operator shall have an inspection and maintenance plan that includes the following:
 (1) monthly inspection of leak detection sumps including sampling if fluids are present with analyses of fluid samples furnished to the division; and

		<p>maintenance of records of inspection dates, the inspector and the leak detection system's status;</p> <p>(2) semi-annual inspection and sampling of monitoring wells as required, with analyses of ground water furnished to the division; and maintenance of records of inspection dates, the inspector and ground water monitoring wells' status; and</p> <p>(3) inspections of the berms and the outside walls of pond levees quarterly and after a major rainfall or windstorm, and maintenance of berms in such a manner as to prevent erosion.</p> <p>M. Each operator shall have a plan to control run-on water onto the site and run-off water from the site, such that:</p> <p>(1) the run-on and run-off control system shall prevent flow onto the surface waste management facility's active portion during the peak discharge from a 25-year storm; and</p> <p>(2) run-off from the surface waste management facility's active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards.</p>
Spills		No specific regulation located

New York		
Topic	Associated Forms	Regulations: http://public.leginfo.state.ny.us/menugetf.cgi
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Deepen, Plug Back or Convert a Well subject to the Oil, Gas and Solution Mining Law	<p style="text-align: right;"><u>Chapter V Resource Management Services</u> <u>§552.1 Application and fee</u></p> <p>(a) It shall be unlawful for any owner or operator to commence operations to drill, deepen, plug back or convert a well for exploration, production, input, storage or disposal until he has filed an application with the department and has received a permit as specified below. This application shall not be required for deepening or plug back operations to be conducted exclusively within the producing horizon of a pool.</p> <p style="text-align: right;"><u>§552.2 Issuance of permit</u></p> <p>(a) Upon determination that the application is in order and that the appropriate plugging bond is in force or proof of financial responsibility has been established as provided in section 551.3, the department shall issue as expeditiously as possible a permit to the owner or operator utilizing form OG9. (b) During the period while operations are in progress, the permit must be posted in a prominent place at the well site so as to be clearly visible and legible at all times. (c) If the operations for which the permit is granted have not commenced and been pursued in a diligent manner within 180 days from the date of issuance of the permit, said permit shall expire.</p>
Well Treatment, Stimulation and Fracturing	Well Drilling and Completion Report	<p style="text-align: right;"><u>§554.1 Prevention of pollution and migration</u></p> <p>(a) The drilling, casing and completion program adopted for any well shall be such as to prevent pollution.</p> <p>(e) The drilling, casing and completion program adopted for any well shall be such as to prevent the migration of oil, gas or other fluids from one pool or stratum to another.</p>
Well Construction	Well Drilling and Completion Report	<p style="text-align: right;"><u>§554.1 Prevention of pollution and migration</u></p> <p>(a) The drilling, casing and completion program adopted for any well shall be such as to prevent pollution. (b) Pollution of the land and/or of surface or ground fresh water resulting from exploration or drilling is prohibited. (d) Except as hereinafter provided, sufficient surface casing shall be run in all wells to extend below the deepest potable fresh water level. (e) The drilling, casing and completion program adopted for any well shall be such as to prevent the migration of oil, gas or other fluids from one pool or stratum to another.</p> <p style="text-align: right;"><u>§554.3 Cable tool drilling practices</u></p> <p>(a) On all wells where cable tools are employed, the surface casing shall be tested by bailing to insure a shutoff before drilling below the casing point proceeds. (c) Any oil or gas encountered above the ultimate objective in sufficient quantities as to constitute a hazard or waste if permitted to escape must be shut off before drilling proceeds deeper. Shutoff may be accomplished either by mudding, cementation or by the running of a string of casing. The hole must be tested by bailing to insure shutoff before drilling is resumed.</p> <p style="text-align: right;"><u>§554.4 Rotary tool drilling practices</u></p> <p>(a) On all wells where rotary tools are employed, and the subsurface formations and pressures to be encountered have been reasonably well established by prior drilling experience, the operator shall have the option of either running surface casing as provided in section 554.1(b) of this Part or of cementing the production casing from below the deepest potable fresh water level to the surface. In areas where the subsurface formations and pressures to be encountered are unknown or uncertain, surface casing shall be run as provided in section 554.1(b) of this Part. (b) When surface casing is utilized, it shall be cemented by the pump and plug or displacement method with sufficient cement to circulate to the top of the hole. Drilling shall not be resumed until the cement has been permitted to set in accordance with prudent current industry practices. (d) If it is elected to complete a rotary-drilled well and production casing is run, it shall be cemented by a pump and plug or displacement method with sufficient cement to circulate above the top of the completion zone to a height sufficient to prevent any movement of oil or gas or other fluids around the exterior of the production casing. In such instance, operations shall be suspended until the cement has been permitted to set in accordance with prudent current industry practices.</p>
Temporary Abandonment/ Shut- in Status	Request for Shut-In or Temporary Abandonment	<p style="text-align: right;"><u>§555.2 Shut-in wells</u></p> <p>(a) It shall be unlawful for the owner or operator thereof to shut in a well capable of being produced on a commercial basis for more than one year without specific permission from the department for an extension of the time period during which shut-in is permitted. (b) Permission for an extension of the time period during which shut-in is permitted shall be granted administratively by the department upon written application</p>

		<p>therefor by the owner or operator and the demonstration of sufficient good cause. Such extension shall be granted for a period of not more than one year, but shall be renewable for additional successive periods of equivalent length upon receipt of successive petitions from the owner or operator and the demonstration of continued sufficient good cause.</p> <p>(c) Upon termination of the period of lawful shut-in, the owner or operator must begin producing the well or permanently plug and abandon it as provided hereinafter.</p> <p style="text-align: center;"><u>§555.3 Temporary abandonment</u></p> <p>(a) It shall be unlawful for the owner or operator of any well to temporarily abandon same for more than 90 days without specific permission from the department for an extension of the time period during which temporary abandonment is permitted.</p> <p>(b) Permission for an extension of the time period during which temporary abandonment is permitted shall be granted administratively by the department upon written application therefor by the owner or operator and the demonstration of sufficient good cause. Such extension shall be granted for a reasonable time period and shall be renewable for additional reasonable time periods upon receipt of successive petitions from the owner or operator and the demonstration of continued sufficient good cause.</p> <p>(c) Upon termination of the period of lawful temporary abandonment, the owner or operator must either resume operations or permanently plug and abandon the well as provided hereinafter.</p>
<p>Well Plugging</p>	<p>Notice of Intention to Plug and Abandon, Form OG11</p> <p>Plugging Report, Form OG13</p>	<p style="text-align: center;"><u>§555.4 Permanent abandonment</u></p> <p>(a) It shall be unlawful for the owner or operator of any well to permanently plug and abandon same until he has given notice at least 10 days in advance of the commencement of plugging operations to the department on form OG11, which is to be filed in triplicate, and has received a permit from the department therefor on form OG12. During the period while abandonment operations are in progress, this permit must be posted at the well site so as to be clearly visible and legible at all times.</p> <p>(b) Upon receipt of the notice of intention to abandon, the department will send the permit therefor to the owner or operator or person responsible for the plugging operations and arrange for a representative to be present at the well to witness the plugging operations. The permit will contain a confirmation of the well location and date and time of the commencement of the plugging operation as specified by the owner or operator on form OG11. If the representative of the department is not at the well site at the specified date and time, the operator may proceed to plug and abandon the well without waiting for official witness.</p> <p>(c) In the event the well to be plugged and abandoned is one upon which the drilling or rework operations have been in progress on a continuous basis as authorized or acknowledged by the department on form OG9 as provided in Part 552, the notice of intention to abandon may be given verbally or by telegram to the regional headquarters administering to the county in which the well is located. In such event, the regional headquarters will acknowledge receipt of the notice of intention to abandon either verbally or by telegram. Although this procedure shall be allowed to prevent excessive waiting time, the owner or operator still must provide the department with formal notice of intention to abandon utilizing form OG11 as promptly as is reasonably possible, and will be furnished with a permit on form OG12.</p> <p>(d) In an emergency or where compliance with the normal procedure of 10 days advance notification to the department of a planned permanent plugging and abandonment of a well clearly will cause undue hardship upon the owner or operator, the notice of intention to abandon may be given verbally to the department (normally to the regional headquarters administering to the county in which the well is located). In such event the notice of intention to abandon will be acknowledged verbally or by telegram. Although this procedure shall be allowed in an emergency or to prevent undue hardship, the owner or operator still must provide the department with formal notice of intention to abandon utilizing form OG11 as promptly as is reasonably possible, and will be furnished with a permit on form OG12.</p> <p style="text-align: center;"><u>§555.5 Plugging methods, procedures and reports</u></p> <p>(a) The plugging of a well shall be conducted in accordance with the following sequence of operations:</p> <p>(1) The well bore, whether to remain cased or uncased, shall be filled with cement from total depth to at least 15 feet above the top of the shallowest formation from which the production of oil or gas has ever been obtained in the vicinity. Alternatively, a bridge topped with at least 15 feet of cement shall be placed immediately above each formation from which the production of oil or gas has ever been obtained in the vicinity.</p> <p>(2) If any casing is to be left in the ground, a cement plug of at least 15 feet in length shall be placed at the bottom of such section of casing. A similar plug shall be placed at the top of such section of casing unless it shall extend to the surface. In the latter event, the casing shall be capped in any such manner as will prevent the migration of fluids and not interfere with normal soil cultivation.</p> <p>(3) If casing extending below the deepest potable fresh water level shall not remain in the ground, a cement plug of at least 15 feet in length shall be placed in the open hole at a position approximately 50 feet below the deepest potable fresh water level.</p> <p>(4) If the conductor or surface casing is drawn, a cement plug of at least 15 feet in length shall be placed immediately below the point where the lower end of the conductor or surface casing shall previously have rested. The hole thereabove then shall be filled with cement, sand or rock sediment or other suitable material in such a manner as will prevent erosion of the well bore area and not interfere with normal soil cultivation.</p> <p>(5) The interval between all plugs mentioned in paragraphs (1) through (4) of this subdivision shall be filled with a heavy mud-laden or other approved fluid.</p> <p>(6) The operator shall have the option as to the method of placing any cement in the hole by either (i) dump bailer, (ii) pumping or siphoning through tubing or drill pipe, (iii) pump and plug, or (iv) such other method as shall be approved by the department.</p> <p>(b) In the event mechanical or other unusual conditions in the well are such as to make plugging following the sequence outlined in subdivision (a) above impractical, the owner or operator may be granted permission by the department to use some alternative or equivalent plugging procedure.</p> <p>(c) As a part of the plugging and abandonment operation, the owner or operator shall fill with earth any pit or other excavation, including any rat hole or mouse hole, which has been created to facilitate the drilling or production of the well. In addition, a reasonable effort to smooth the surface adjacent to the well and filled pit or excavation so as to place the surface in a condition similar to the adjacent terrain and without undue elevation shall be made. If it can be demonstrated to the satisfaction of the department that no hazard will result and the landowner has signed an appropriate release, these surface restoration requirements will be waived.</p>

		(d) Within 30 days after the plugging of any well, a plugging report on form OG13 shall be filed with the department by the owner or operator or person responsible for the plugging operation.
Tanks		No specific regulation located
Pits	Environmental Assessment Form	<i>Editors Note: See Exempt Waste Handling below for information on pits</i>
Exempt Waste Handling	Environmental Assessment Form	<p style="text-align: right;"><u>§554.1 Prevention of pollution and migration</u></p> <p>(a) The drilling, casing and completion program adopted for any well shall be such as to prevent pollution. (b) Pollution of the land and/or of surface or ground fresh water resulting from exploration or drilling is prohibited. (c) (1) Prior to the issuance of a well-drilling permit for any operation in which the probability exists that brine, salt water or other polluting fluids will be produced or obtained during drilling operations in sufficient quantities to be deleterious to the surrounding environment, the operator must submit and receive approval for a plan for the environmentally safe and proper ultimate disposal of such fluids. For purposes of this subdivision, drilling muds are not considered to be polluting fluids. Before requesting a plan for disposal of such fluids, the department will take into consideration the known geology of the area, the sensitivity of the surrounding environment to the polluting fluids and the history of any other drilling operations in the area. Depending on the method of disposal chosen by the applicant, a permit for discharge and/or disposal may be required by the department in addition to the well-drilling permit. An applicant may also be required to submit an acceptable contingency plan, the use of which shall be required if the primary plan is unsafe or impracticable at the time of disposal. (2) Brine or salt water may be temporarily stored prior to disposal in any watertight tank, container or an earthen pit which is underlain by soil such as heavy clay or hardpan. Impounding of brine or salt water in an earthen pit is prohibited where the soil underlying the pit is porous and/or is closely underlain by a gravel, rock or sand stratum unless the pit is lined with watertight material. The tank, container or earthen pit shall be constructed and maintained so as to prevent escape of any fluids therefrom, including any amounts that may be added by natural precipitation. (3) Storage of brine, salt water or other polluting fluids in such watertight tanks or earthen pits, prior to disposal, shall be for a maximum of 45 days after cessation of drilling operations, unless the department approves an extension based on circumstances beyond the operator's control. The department may also approve an extension if the fluid is to be used in subsequent operations according to the submitted plan, and the department has inspected and approved the storage facilities.</p> <p style="text-align: right;"><u>§556.5 Pollution and disposal</u></p> <p>(a) Pollution of the land and/or surface or ground fresh water resulting from producing, refining, transportation or processing of oil, gas and products, or in connection with solution mining, is prohibited. (b) Brine or salt water liquids shall not be stored or disposed of except as follows, unless an alternative procedure has been approved by the department after written application therefor and demonstration of good cause, said permission to be granted on an administrative basis or after public hearing at the discretion of the department: (1) Brine or salt water may be stored prior to disposition in any watertight tank or container including an earthen pit which is underlain by tight soil such as heavy clay or hardpan. Where the soil underlying the pit is porous and/or is closely underlain by a gravel or sand stratum, impounding of brine or salt water in such earthen pit is prohibited unless the pit is lined with watertight material. The earthen pit shall be constructed and maintained so as to prevent escape of brine or salt water therefrom, including maintenance of the level of the impounded fluids, including those added by natural precipitation so that no fluids shall be allowed to escape over or into adjacent lands or into streams or other bodies of water. The department shall have the authority to condemn any pit which does not properly impound such water. (2) Salt water may be disposed of by injection into the strata from which produced or other proved salt water bearing strata after application for such injection has been approved by the department and under such conditions as may be prescribed. Concurrently with the filing with the department of the application to dispose of salt water by injection, the applicant must send a copy of said application by registered mail to the operators of all leases or units offsetting the lease or unit on which the input well is or will be located and the application must be accompanied by a list of the names and addresses of the offsetting operators and a statement that each has been sent a copy of the application by registered mail, and the date of such mailing. Upon receipt of the application to dispose of salt water by injection, the department will hold same for 10 days. If within said 10-day period, any offset operator reciting reasonable cause, shall file in writing with the department a protest to such disposal, or if the department is not in accord with the proposed injection, the application shall be scheduled for public hearing. If no objection from either an offset operator or the department is interposed within the 10-day period and all other things being in order, the application will be approved and written permission for the injection will be issued by the department prescribing thereon any special conditions that must prevail. The compulsory 10-day waiting period will not be required if the application for permission to dispose of salt water by injection is accompanied by the written consent of the operators of all leases or units offsetting the lease or unit containing the well into which it is proposed to inject salt water and the department has no objection.</p> <p>NOTE: The State General Environmental Impact Statement required by the State of New York specifies that all pits used for the storage of fracture treatment fluids be lined.</p>
Spills		<p>§ 23-0305. Powers and duties of the commissioner and the department.</p> <p>8. With respect to oil pools or fields and natural gas pools or fields, the department shall have power to:</p> <p>h. Require the immediate reporting of any non-routine incident including but not limited to casing and drill pipe failures, casing cement failures, fishing jobs, fires, seepages, blowouts and other incidents during drilling, completion, producing, plugging or replugging operations that may affect the health, safety, welfare or property of any person. The department may require the operator, or any agent thereof, to record any data which the department believes may be of subsequent use for adequate evaluation of a non-routine incident.</p>

North Dakota		
Topic	Associated Forms	Regulations: https://www.dmr.nd.gov/oilgas/rules/rulebook.pdf
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Form 1	<p>Chapter 38-08 Control of Oil and Gas Resources 38-08-05. DRILLING PERMIT REQUIRED.</p> <p>It is unlawful to commence operations for the drilling of a well for oil or gas without first obtaining a permit from the industrial commission under such rules as may be prescribed by the commission and paying to the commission a fee for each such well in an amount to be prescribed by the commission. The applicant shall provide notice to the owner of any permanently occupied dwelling located within one-quarter mile [402.34 meters] of the proposed oil or gas well. Unless waived by the owner or if the commission determines that the well location is reasonably necessary to prevent waste or to protect correlative rights, the commission may not issue a drilling permit for an oil or gas well that will be located within five hundred feet [152.4 meters] of an occupied dwelling. If the commission issues a drilling permit for a location within five hundred feet [152.4 meters] of an occupied dwelling, the commission may impose such conditions on the permit as the commission determines reasonably necessary to minimize impact to the owner of the dwelling.</p> <p>Chapter 43-02 Rules and Regulations 43-02-03-16. APPLICATION FOR PERMIT TO DRILL AND RECOMPLETE.</p> <p>Before any person shall begin any well-site preparation for the drilling of any well other than surveying and staking, such person shall file an application for permit to drill (form 1) with the director, together with a permit fee of one hundred dollars. Verbal approval may be given for site preparation by the director in extenuating circumstances. No drilling activity shall commence until such application is approved and a permit to drill is issued by the director. The applicant shall provide all information, in addition to that specifically required by this section, if requested by the director. The director may impose such terms and conditions on the permits issued under this section as the director deems necessary.</p> <p>The director shall deny an application for a permit under this section if the proposal would cause, or tend to cause, waste or violate correlative rights. The director of oil and gas shall state in writing to the applicant the reason for the denial of the permit. The applicant may appeal the decision of the director to the commission.</p> <p>A permit to drill automatically expires one year after the date it was issued, unless the well is drilling or has been drilled below surface casing. A permit to recomplete or to drill horizontally automatically expires one year after the date it was issued, unless such project has commenced.</p>
Well Treatment, Stimulation and Fracturing	Sundry Notices and Reports on Wells, Form 4	<p>43-02-03-27. PERFORATING, FRACTURING, AND CHEMICALLY TREATING WELLS.</p> <p>If damage results to the casing or the casing seat from perforating, fracturing, or chemically treating a well, the operator shall proceed with diligence to use the appropriate method and means for rectifying such damage. If perforating, fracturing or chemical treating results in irreparable damage which threatens the mechanical integrity of the well, the commission may require the operator to plug the well.</p>
Well Construction	Well Completion or Recompletion Report, Form 6	<p>43-02-03-20. SEALING OFF STRATA.</p> <p>During the drilling of any oil or natural gas well, all oil, gas, and water strata above the producing horizon shall be sealed or separated where necessary in order to prevent their contents from passing into other strata.</p> <p>All freshwaters and waters of present or probable value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the commission. Special precautions shall be taken in drilling and plugging wells to guard against any loss of artesian water from the strata in which it occurs and the contamination of artesian water by objectionable water, oil, or gas.</p> <p>All water shall be shut off and excluded from the various oil-bearing and gas-bearing strata which are penetrated. Water shutoffs shall ordinarily be made by cementing casing or landing casing with or without the use of mud-laden fluid.</p> <p>43-02-03-21. CASING, TUBING, AND CEMENTING REQUIREMENTS.</p> <p>All wells drilled for oil, natural gas or injection shall be completed with strings of casing which shall be properly cemented at sufficient depths to adequately protect and isolate all formations containing water, oil or gas or any combination of these; protect the pipe through salt sections encountered; and isolate the uppermost sand of the Dakota group.</p> <p>Drilling of the surface hole shall be with freshwater-based drilling mud or other method approved by the director which will protect all freshwater-bearing strata. The surface casing shall consist of new or reconditioned pipe that has been previously tested to one thousand pounds per square inch [6900 kilopascals]. The surface casing shall be set and cemented at a point not less than fifty feet [15.24 meters] below the base of the Fox Hills formation. Sufficient cement shall be used on surface casing to fill the annular space behind the casing to the bottom of the cellar, if any, or to the surface of the ground. All strings of surface casing shall stand cemented under pressure for at least twelve hours before drilling the plug or initiating tests. The term "under pressure" as used herein shall be complied with if one float valve is used or if pressure is otherwise held.</p> <p>Cementing shall be by the pump and plug method or other methods approved by the director. The director is authorized to require an accurate gauge be maintained on the surface casing of any well, not properly plugged and abandoned, to detect any buildup of pressure caused by the migration of fluids.</p> <p>Surface casing strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals].</p> <p>All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least three hundred fifty pounds per square inch [2415 kilopascals] within seventy-two hours. All compressive strengths on surface casing cement shall be calculated at a temperature of eighty degrees Fahrenheit [26.67 degrees Celsius].</p> <p>Production or intermediate casing strings shall consist of new or reconditioned pipe that has been previously tested to two thousand pounds per square inch</p>

		<p>[13800 kilopascals]. Such strings must be allowed to stand under pressure until the tail cement has reached a compressive strength of at least five hundred pounds per square inch [3450 kilopascals]. All filler cements utilized must reach a compressive strength of at least two hundred fifty pounds per square inch [1725 kilopascals] within twenty-four hours and at least five hundred pounds per square inch [3450 kilopascals] within seventy-two hours. All compressive strengths on production or intermediate casing cement shall be calculated at a temperature found in the Mowry formation using a gradient of 1.2 degrees Fahrenheit per one hundred feet [30.48 meters] of depth plus eighty degrees Fahrenheit [26.67 degrees Celsius]. After cementing, the casing shall be tested by application of pump pressure of at least one thousand five hundred pounds per square inch [10350 kilopascals]. If, at the end of thirty minutes, this pressure has dropped one hundred fifty pounds per square inch [1035 kilopascals] or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained. The casing in a horizontal well may be tested by use of a mechanical tool set near the casing shoe after the horizontal section has been drilled.</p> <p>All flowing wells must be equipped with tubing. A tubing packer must also be utilized unless a waiver is obtained after demonstrating the casing will not be subjected to excessive pressure or corrosion. The packer must be set as near the producing interval as practicable, but in all cases must be above the perforations.</p> <p>43-02-03-24. PULLING STRING OF CASING.</p> <p>In pulling strings of casing from any oil, gas, or injection well, the space above the casing stub shall be kept and left full of fluid with adequate gel strength and specific gravity, cement, or combination thereof, to seal off all freshwater and saltwater strata and any strata bearing oil or gas not producing. No casing shall be removed without the prior approval of the director.</p>
Temporary Abandonment/ Shut- in Status	Sundry Notices and Reports on Wells, Form 4	<p>43-02-03-55. ABANDONMENT OF WELLS - SUSPENSION OF DRILLING.</p> <ol style="list-style-type: none"> 1. The removal of production equipment or the failure to produce oil or gas, other than a gas well shut in for lack of a market, for one year constitutes abandonment of the well. The removal of injection equipment or the failure to use an injection well for one year constitutes abandonment of the well. An abandoned well must be plugged and its site must be reclaimed pursuant to sections 43-02-03-34 and 43-02-03-19. 2. The director may waive for one year the requirement to plug and reclaim an abandoned well by giving the well temporarily abandoned status. This status may only be given to wells that are to be used for purposes related to the production of oil and gas. If a well is given temporarily abandoned status, the well's perforations must be isolated, the integrity of its casing must be proven, and its casing must be sealed at the surface, all in a manner approved by the director. The director may extend a well's temporarily abandoned status beyond one year. A fee of one hundred dollars shall be submitted with each application to extend the temporary abandonment status of any well. 3. In addition to the waiver in subsection 2, the director may also waive the duty to plug and reclaim an abandoned well for any other good cause found by the director. If the director exercises this discretion, the director shall set a date or circumstance upon which the waiver expires. 4. The director may approve suspension of the drilling of a well. If suspension is approved, a plug must be placed at the top of the casing to prevent any foreign matter from getting into the well. When drilling has been suspended for thirty days, the well, unless otherwise authorized by the director, must be plugged and its site reclaimed pursuant to sections 43-02-03-34 and 43-02-03-19.
Well Plugging	Sundry Notices and Reports on Wells, Form 4 Plugging Report, Form 7	<p>43-02-03-33. NOTICE OF INTENTION TO PLUG WELL.</p> <p>The operator or the operator's agent shall file a notice of intention (form 4) to plug with the director, and obtain the approval of the director, prior to the commencement of plugging or plug-back operations. The notice shall state the name and location of the well, the name of the operator, and the method of plugging, which must include a detailed statement of proposed work. In the case of a recently completed test well that has not had production casing in the hole, the operator may commence plugging by giving reasonable notice to, and securing verbal approval of, the director as to the method of plugging, and the time plugging operations are to begin. Within thirty days after the plugging of any well has been accomplished, the owner or operator thereof shall file a plugging record (form 7), and, if requested, a copy of the cementer's trip ticket or job receipt, with the director setting forth in detail the method used in plugging the well.</p> <p>43-02-03-34. METHOD OF PLUGGING.</p> <p>All wells shall be plugged in a manner which will confine permanently all oil, gas, and water in the separate strata originally containing them. This operation shall be accomplished by the use of mud-laden fluid, cement, and plugs, used singly or in combination as may be approved by the director. All casing strings shall be cut off at least three feet [91.44 centimeters] below the final surface contour, and a cap shall be welded thereon. Core or stratigraphic test holes drilled to or below sands containing freshwater shall be plugged in accordance with the applicable provisions recited above. After plugging, the site must be reclaimed pursuant to section 43-02-03-19.</p>
Tanks		<p>43-02-03-49. OIL SPILLS, PRODUCTION EQUIPMENT, DIKES, AND SEALS.</p> <p>Storage of oil in underground or partially buried tanks or containers is prohibited. Surface oil tanks and production equipment must be devoid of leaks and in good condition. Unusable tanks and production equipment must be removed from the site or repaired and placed into service, within a reasonable time period, not to exceed one year. Dikes must be erected and maintained around oil tanks at any production facility built or rebuilt on or after July 1, 2000. Dikes must be erected around oil tanks at any new production facility within thirty days after the well has been completed. Dikes must be erected and maintained around oil tanks at production facilities built prior to July 1, 2000, when deemed necessary by the director. Dikes must be constructed of sufficiently impermeable material to provide emergency containment and of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid production. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction. At no time shall oil be allowed to flow over or pool on the surface of the land or infiltrate the soil. Discharged oil must be properly removed and may not be allowed to remain standing within or outside of any diked areas.</p> <p>43-02-03-53. SALTWATER HANDLING FACILITIES.</p> <ol style="list-style-type: none"> 1. All saltwater liquids or brines produced with oil and natural gas shall be processed, stored, and disposed of without pollution of freshwater supplies. At no time shall saltwater liquids or brines be allowed to flow over or pool on the surface of the land or infiltrate the soil.

		<p>2. Underground injection of saltwater liquids and brines shall be in accordance with chapter 43-02-05.</p> <p>3. Surface facilities are acceptable provided that:</p> <p>a. They are devoid of leaks and constructed of materials resistant to the effects of produced saltwater liquids, brines, or chemicals that may be contained therein. The above materials requirement may be waived by the director for tanks presently in service and in good condition. Unusable tanks and injection equipment must be removed from the site or repaired and placed into service, within a reasonable time period, not to exceed one year.</p> <p>b. Dikes must be erected and maintained around saltwater tanks at any saltwater handling facility built or rebuilt on or after July 1, 2000. Dikes must be erected around saltwater tanks at any new facility within thirty days after the well has been completed. Dikes must be erected and maintained around saltwater tanks at saltwater handling facilities built prior to July 1, 2000, when deemed necessary by the director. Dikes must be constructed of sufficiently impermeable material to provide emergency containment and of sufficient dimension to contain the total capacity of the largest tank plus one day's fluid production. The required capacity of the dike may be lowered by the director if the necessity therefor can be demonstrated to the director's satisfaction. Discharged saltwater liquids or brines must be properly removed and may not be allowed to remain standing within or outside of any diked areas</p>
Pits		<p>43-02-03-19. RESERVE PIT FOR DRILLING MUD AND DRILL CUTTINGS - RECLAMATION OF SURFACE.</p> <p>In order to assure a supply of proper material or mud-laden fluid to confine oil, gas, or water to its native strata during the drilling of any well, each operator shall provide, before drilling is commenced, a container or reserve pit of sufficient size to contain said material or fluid, and the accumulation of drill cuttings. A reserve pit may be utilized to contain solids and fluids used and generated during well drilling and completion operations, providing the pit can be constructed, used and reclaimed in a manner that will prevent pollution of the land surface and freshwaters. In special circumstances, the director may prohibit construction of a reserve pit or may impose more stringent pit construction and reclamation requirements. Under no circumstances shall reserve pits be used for disposal, dumping, or storage of fluids, wastes, and debris other than drill cuttings and fluids used or recovered while drilling and completing the well. Reserve pits shall not be located in, or hazardously near, bodies of water, nor shall they block natural drainages. No reserve pit shall be wholly or partially constructed in fill dirt unless approved by the director.</p> <p>All pit water and oil on the pit must be removed prior to reclamation. Drilling waste should be encapsulated in the pit and covered with at least four feet [1.22 meters] of backfill and topsoil and surface sloped, when practicable, to promote surface drainage away from the reclaimed pit area.</p> <p>43-02-03-19.3 EARTHEN PITS AND OPEN RECEPTACLES.</p> <p>Except as otherwise provided in section 43-02-03-19, no saltwater, drilling mud, crude oil, waste oil, or other waste shall be stored in earthen pits or open receptacles except in an emergency and upon approval by the director.</p> <p>An earthen pit or open receptacle may be temporarily used to retain oil, water or fluids generated in well servicing or plugging operations. A pit used for this purpose must be sufficiently impermeable to provide adequate temporary containment of the oil, water, or fluids. The contents of the pit or receptacle must be removed within seventy-two hours after operations have ceased and must be disposed of at an authorized facility in accordance with section 43-02-03-19.2. The director may permit pits used solely for the purpose of flaring casinghead gas. Permission for such a pit will be conditioned on keeping the pit free of any saltwater, crude oil, waste oil, or other waste.</p>
Exempt Waste Handling		<p>43-02-03-19.2. DISPOSAL OF WASTE.</p> <p>All waste associated with exploration or production of oil and gas must be properly disposed of in an authorized facility in accord with all applicable local, state, and federal laws and regulations. This is not to be construed as requiring the offsite disposal of drilling mud or drill cuttings associated with the drilling of a well. However, top water remaining in the reserve pit used in the drilling and completion operations is to be removed from the reserve pit and disposed of in an authorized disposal well or used in a manner approved by the director. The disposition or use of the water must be included on the sundry notice (form 4) reporting the plan of reclamation pursuant to section 43-02-03-19.</p>
Spills	Sundry Notices and Reports on Wells, Form 4	<p>43-02-03-30. NOTIFICATION OF FIRES, LEAKS, SPILLS, OR BLOWOUTS.</p> <p>All persons controlling or operating any well, pipeline, receiving tank, storage tank, or production facility into which oil, gas, or water is produced, received, stored, processed, or through which oil, gas, or water is injected, piped, or transported, shall verbally notify the director within twenty-four hours after discovery of any fire, leak, spill, blowout, or release of fluid. Notification requirements prescribed by this section shall not apply to any leak, spill, or release of fluid that is less than one barrel total volume and remains onsite of a facility. The verbal notification must be followed by a written report within ten days after cleanup of the incident, unless deemed unnecessary by the director. Such report must include the following information: the operator and description of the facility, the legal description of the location of the incident, date of occurrence, date of cleanup, amount and type of each fluid involved, amount of each fluid recovered, steps taken to remedy the situation, cause of the accident, and action taken to prevent reoccurrence. The signature, title, and telephone number of the company representative must be included on such report. If any such incident occurs or travels offsite of a facility, the persons, as named above, responsible for proper notification shall also notify the surface owners upon whose land the incident occurred or traveled.</p> <p>The commission, however, may impose more stringent spill reporting requirements if warranted by proximity to sensitive areas, past spill performance, or careless operating practices as determined by the director.</p>

Ohio		
Topic	<u>Associated Forms</u>	Regulations: <u>http://codes.ohio.gov/oac/1501:9</u> Excerpted Text by Topic
Permitting	Application for a Permit, Form 1 Supplement to Application for a Permit, Form 1A	Ohio Revised Code 1509.05. Permit to drill, reopen, convert or plug back well. No person shall drill a new well, drill an existing well any deeper, reopen a well, convert a well to any use other than its original purpose, or plug back a well to a source of supply different from the existing pool, without having a permit to do so issued by the chief of the division of mineral resources management, and until the original permit or a photostatic copy thereof is posted or displayed in a conspicuous and easily accessible place at the well site, with the name, current address, and telephone number of the permit holder and the telephone numbers for fire and emergency medical services maintained on the posted permit or copy. The permit or a copy shall be continuously displayed in such manner at all times during the work authorized by the permit. Such permit shall be issued by the chief in accordance with this chapter and shall be valid for twelve months.
Well Treatment, Stimulation and Fracturing	Well Completion Record, Form 8	No specific regulation located
Well Construction	Well Completion Record, Form 8	1509.17. Well to be encased; withdrawal of casing. Any person who drills a well shall, before drilling into the principal or major producing formation therein, encase such well with good and sufficient wrought iron or steel casing so as to exclude all surface, fresh, or salt water from any part of such well penetrating the oil or gas bearing sand or rock or fresh water strata. The method of placing such casing shall be approved by the chief of the division of mineral resources management, and shall be in accord with the most approved method used in the operation of such type of well. The chief may, in lieu of the casing method outlined in this section, accept adequate mudding methods with prepared clay in the annular space behind such casing in sufficient quantities to shut off all gas or oil and that will exclude all surface, fresh, or salt water from any part of such well penetrating the oil, gas, or mineral bearing formation, or fresh water strata. Written approval from the chief is required in each case. In the operation of a gas well, it is permissible, with the written consent of the chief, to withdraw all casing in such well, leaving only the tubing and the packer therein, provided that such well is filled with prepared clay from the top of such packer to the surface, as each succeeding string of casing in such well is withdrawn. When the well penetrates the excavations of a mine, the casing shall remain intact as provided in section 1509.18 of the Revised Code and be plugged and abandoned in accordance with section 1509.15 of the Revised Code.
Temporary Abandonment/ Shut- in Status		Ohio Administrative Code 1501:9-11-05 Commencement. (C) Plugging operations on each abandoned oil and gas well, abandoned brine disposal well, abandoned well used to inject fluids for the enhanced recovery of oil or gas, and abandoned well used to store hydrocarbons and all wells plugged back in order to inject into or extract fluids from a more shallow formation and abandoned well used for solution mining of minerals must commence without undue delay after production, extraction, or injection operations have ceased and shall proceed with due diligence until completed. Exceptions may be granted by oral or written permission of the chief.
Well Plugging	Application for a Permit, Form 1 Well Plugging Report, Form 55	1501:9-11-02 Permit to plug. (A) Each application for a permit to plug and abandon a well shall include: an affidavit attesting that the owner of his authorized agent has notified in writing the owner of the land upon which the well is located, of his intention to abandon the well, and of the approximate date when he will commence plugging operations. (B) The division will provide electronic access created in the normal course of business to all underground mine owners in the state providing notice of applications to plug that have been filed with the division and permits to plug that have been issued by the division. (C) To encourage plugging of all applicable wells in accordance with standards established by the Federal (MSHA)(Mine Safety Health Administration), the coal owner may contact the well owner to coordinate plugging of a well in a manner that will protect miner safety and minimize the need to drill out and re-plug a well in the future. The coal owner will bear all incremental costs of plugging pursuant to these "Standards". The coal owner shall make every reasonable effort to facilitate the coordination to avoid any delay in the scheduling of the plugging by the owner. (D) The permit or a true copy thereof shall be available at the well site at all times during which plugging and abandonment operations are taking place. A permit issued pursuant to these rules is not transferable. It may be reissued as a new permit to a successor owner. (E) Expiration of plugging permit: (1) Once a permit to plug and abandon has been issued pursuant to this rule, actual plugging of the well authorized by the permit shall be commenced within twelve month period of the date of issuance of such permit or the permit shall expire; if plugging is commenced but not completed within said twelve month period, plugging shall be continued with due diligence following the twelve month period or the permit shall expire. 1501:9-11-04 Notification and supervision. Each plugging operation shall be conducted under the supervision of an inspector. The well owner or his authorized agent shall notify the inspector when plugging operations will commence at a dry hole or lost hole in sufficient time to enable the inspector to be present. For all other wells, the owner or his authorized agent shall notify the inspector a minimum of twenty-four hours prior to commencement of plugging operations. The chief may grant verbal authorization to the owner to commence plugging operations when the inspector is unable to be present in accordance with the provisions in sections 1509.13 and 1509.14 of the Revised Code.

1501:9-11-06 Pulling of conductor pipe and surface casing.

(A) In order to protect the fresh water strata and to prevent surface subsidence, no conductor pipe, driven or set during the drilling of a cable tool well, or surface casing if the conductor pipe is not in place, shall be pulled from the well.

(B) Prior to pulling surface casing from a cable tool drilled well, all free crude oil and brine shall be removed from inside the production borehole.

1501:9-11-07 Materials.

(A) A well shall be plugged with cement, prepared clay, or any other material approved by the chief. A rotary drilled hole shall be plugged with cement unless otherwise approved by the division. The owner or his agent may have the option of using either prepared clay or cement to plug a cable tool drilled hole.

(1) All Class II saltwater injection, enhanced recovery and Class III solution mining wells must be plugged with cement.

(B) Cement shall meet commonly accepted industry standards for portland cement. Cement blends must be able to attain a minimum compressive strength of five hundred pounds per square inch after twenty-four hours when tested in accordance commonly accepted industry standards. If pozzolan cement mixtures are used, pozzalanic materials may not exceed fifty per cent by volume of a cement blend. A well that yields hydrogen sulfide must be plugged with sulfate-resistant cement. Inspectors may approve the use of a nine-sack grout.

The chief will evaluate sources of prepared clay to determine whether they satisfy division standards. The chief shall approve prepared clay sources based upon an annual test demonstrating that the material has a clay content of not less than 40 percent and a sand or greater size content not exceeding 30 percent. For purposes of this evaluation, clay shall be considered any material with a particle size of 4.0 microns or less, and the sand fraction will be considered all particles with a grain size exceeding 62.5 microns. The division will collect a composite sample of material from the clay seam, stockpile or bagged product that is deemed representative of the source material. The division will seal, label, and deliver the sample to a qualified laboratory for testing. Upon receipt of the analysis, the division will inform the owner whether the sample meets applicable standards and provide a copy of the analysis. In addition to meeting the grain size standards, the owner of an approved operation must process the material and store the material in a dry condition for delivery. The division will maintain and update the list of approved prepared clay sources at least annually.

(C) No substance of any nature or description other than that normally used in plugging operations in accordance with the acceptable industry standard shall be placed in any well at any time during the plugging operations.

1501:9-11-08 Plugging with cement.

(A) For all wells plugged with cement, plugs shall be placed in the following intervals:

(1) From total depth or a minimum of fifty feet below the base of the lowest reservoir rock penetrated to a minimum of two hundred feet above the top of the lowest reservoir rock penetrated. With approval of the chief the owner may have the option to plug the lowest reservoir with prepared clay or other materials. If prepared clay is approved by the chief for the bottom hole plug, the plug shall be emplaced from total depth to a minimum of five-hundred feet above the top of the lowest reservoir rock penetrated or perforated. Prior to placing the clay, tools must be run tot total depth to ensure the well bore is clear of obstructions. If an obstruction is found, the well bore must be cleared prior to the placement of the clay.

(2) From minimum of fifty feet below the base to a minimum of one hundred feet above the top of each succeeding reservoir rock formation until the plugging operation has been completed to within a minimum of one hundred feet of the bottom of the surface casing. Exceptions may be granted by the chief.

(3) From a minimum of one hundred fifty feet below the top of the big lime to the top of the big lime. Exceptions to this rule may be granted by the chief.

(4) From a minimum of one hundred feet below to a minimum of one hundred feet above the base of the surface casing.

(5) If the surface casing of a cable tool well has been removed, leaving the fresh water strata unprotected, a cement plug shall be placed from a minimum of fifty feet below the base of the fresh water strata to thirty inches below grade level.

(6) Where the coal owner identifies that a economic mineable coal seam or active underground mine may be affected, a bridge shall be placed in the well bore a minimum of two hundred feet below the mineable coal seam, and the well bore shall be filled with an approved material from the top of such bridge to within a minimum of thirty inches of the grade level. The owner and the coal owner will make reasonable efforts to coordinate plugging to minimize any potential adverse effect and/or future re-plugging of the well.

(7) From a minimum of one hundred feet below the grade level to thirty inches below grade level.

(B) Placement of cement plugs shall be accomplished by one of the following methods: the balance method, the dump-bailer method, a pump-and-plug method, or any other method approved by the chief.

(C) Where necessary to prevent thieving of cement, drilling mud weighing not less than nine pounds per gallon and with not less than forty "American Petroleum Institute" funnel viscosity may be required in all portions of the well not filled with cement or other approved plugging material, unless otherwise approved by the chief.

(D) Cement plugs shall not be circulated into holes where static conditions cannot be reached.

(E) If during the plugging operation, circulation is lost due to the presence of a highly porous and permeable rock formation, it is permissible to place a mechanical bridge or to pump or place any material approved by the chief across the porous zone in order to provide a base on which to place a cement plug not less than two hundred feet in length above the top of such formation.

(F) During plugging, a good fait effort must be made to recover all casing which is not cemented, excluding conductor pipe.

(G) In the event that it is determined by the inspector that borehole conditions render compliance with the above plugging procedures impossible or impractical or if it is determined by the inspector that the above procedures will not fulfill the requirements as set forth under paragraph (A) of rule 1501:9-11-03 of the Administrative Code, then the inspector may designate an alternate thickness and method of emplacement of the plugs, and/or the approved plugging material to insure compliance with paragraph (A) of rule 1501:9-11-03 of the Administrative Code. The inspector may also require or approve the placing of brush and stone bridges, and/or mechanical bridges in the well bore or casings, when in his judgement, such bridges will be necessary to insure that the plugging material placed in the well remains at the point in the well where such material had been placed.

(H) In order to promote enhanced recovery, including but not limited to secondary and tertiary operations, the chief may require special plugging conditions.

		<p>1501:9-11-09 Plugging with prepared clay.</p> <p>(A) For all wells plugged with prepared clay, a clay slurry shall be placed in the following intervals in the well bore:</p> <ol style="list-style-type: none"> (1) From total depth to a minimum of five hundred feet above the top of the lowest reservoir rock penetrated or perforated. (2) From a minimum of fifty feet below the base of each succeeding reservoir rock formation to a minimum of two hundred feet above the top of such formation, until the plugging operation has been completed to within a minimum of one hundred feet of the bottom of the surface casing. (3) From approximately fifty feet below the base of the fresh water strata to a minimum of thirty inches below the grade level. (4) A bridge shall be placed in the well bore a minimum of two hundred feet below the coal seam, and the well bore shall be filled with an approved material from the top of such bridge to within a minimum of thirty inches below the grade level. <p>(B) During the plugging operation a good faith effort must be made to recover all, casing which is not cemented, excluding conductor pipe. When a string of casing has been withdrawn by either removing the casing above the casing seat, or by parting the casing string, an approved precast concrete plug may be lowered in place either on the casing seat or on the parted casing point to serve as a base for a prepared clay plug. If the surface casing is parted during the pulling operation, and cannot be recovered or removed, the well will be filled from the previous set plug to thirty inches below grade level with prepared clay.</p> <p>(C) The chief or his authorized representative may also require or approve the placing of brush and stone bridges, and/or mechanical bridges in the well bore or casings, when in his judgment such bridges will be necessary to ensure that the prepared clay placed in the well remains at the point in the well where such prepared clay had been placed.</p> <p>(D) A precast concrete plug shall be placed on the top of the conductor pipe or surface casing.</p> <p>(E) In the event that it is determined by the inspector that borehole conditions render compliance with the above plugging procedures impossible or impractical or if it is determined by the inspector that the above procedures will not fulfill the requirements as set forth under paragraph (A) of rule 1501:9-11-03 of the Administrative Code, then the inspector may designate an alternate thickness and method of emplacement of the plugs to ensure compliance with paragraph (A) of rule 1501:9-11-03 of the Administrative Code.</p> <p>(F) In order to promote enhanced recovery, including but not limited to secondary and tertiary operations, the chief or his authorized representative may require special plugging conditions.</p> <p>1501:9-11-12 Plugging operations.</p> <p>(A) When plugging operations are not witnessed by an inspector, a plugging report on a form provided by the division and signed by the owner or his agent, shall be filed with the division within thirty days after completion of the plugging operation. For all wells plugged with cement, a cementing ticket made by the party cementing the well shall be attached to the plugging report. For all wells plugged with prepared clay, a copy of the prepared clay purchase record shall be attached to the plugging report.</p> <p>(B) When an inspector is present to supervise the plugging operations, a plugging report shall be filed in such form as the chief may prescribe.</p> <p>(C) When in normal production or drilling operations the well bore becomes plugged or obstructed because of loss of drilling tools or producing equipment which would be impractical or impossible to remove, special consideration shall be allowed and the well shall be plugged as nearly to the rules as existing circumstances will permit. The exact method of plugging and the equipment lost shall be shown on the plugging report.</p>
Tanks		<p>1501:9-3-08 Temporary storage of saltwater and oil field waste.</p> <p>(B) Where tanks are used to contain saltwater and oil field wastes, they shall be liquid tight. Burial of any tank is prohibited except by written permission from the chief and where the burial is witnessed by an oil and gas well inspector. Steel tanks in use and proposed for use by burial shall be cathodically protected, and the chief shall make additional requirements as are necessary to prevent leakage of saltwater. No tank composed of a material other than steel shall be used for burial except by written permission of the chief. An oil and gas well inspector may gauge any tank at any time to determine if leakage is occurring.</p> <p>1501:9-9-05 Producing operations.</p> <p>(A) Surface Equipment:</p> <ol style="list-style-type: none"> (5) Mechanical separators shall be set a minimum of fifty (50) feet from the well, a minimum of ten (10) feet from oil production tanks and a minimum of one hundred (100) feet from existing inhabited structures. (6) Under tank oil and internal tank heating are prohibited while oil is being produced into the same tank. (7) All oil production tanks must be located in a position so that any escaping oil cannot drain onto public roads or towards existing inhabited structures or other areas which could cause a safety hazard. (9) In order to protect life, health, and property the Chief may require where a clear and present hazard exists that any producing equipment at the well-head and related storage tanks be protected by an earthen dike or earthen pit which shall have a capacity sufficient to contain any substances resulting, obtained, or produced in connection with the operation of the related oil or gas well. The dike or pit shall be maintained for the purpose for which it was constructed, and the reservoir within shall be kept reasonably free of water and oil.
Pits		<p>Ohio Revised Code 1509.22. Contamination of water prohibited; storage and disposal of brine, duty to water user.</p> <p>(C) The chief of the division of mineral resources management shall adopt rules and issue orders regarding storage and disposal of brine and other waste substances; however, the storage and disposal of brine and the chief's rules relating to storage and disposal are subject to all of the following standards:</p> <ol style="list-style-type: none"> (3) Pits may be used for containing brine and other waste substances resulting from, obtained from, or produced in connection with drilling, fracturing, reworking, reconditioning, plugging back, or plugging operations, but the pits shall be constructed and maintained to prevent the escape of brine and other waste substances. A dike or pit may be used for spill prevention and control. A dike or pit so used shall be constructed and maintained to prevent the escape of brine, and the reservoir within such a dike or pit shall be kept reasonably free of brine and other waste substances. (4) Earthen impoundments constructed pursuant to the division's specifications may be used for the temporary storage of brine and other waste

	<p>substances in association with a saltwater injection well, an enhanced recovery project, or a solution mining project; (5) No pit, earthen impoundment, or dike shall be used for the temporary storage of brine except in accordance with divisions (C)(3) and (4) of this section; (6) No pit or dike shall be used for the ultimate disposal of brine.</p> <p>Ohio Administrative Code 1501:9-3-08 Temporary storage of saltwater and oil field waste.</p> <p>(A) All pits used for the temporary storage of saltwater and oil field wastes shall be liquid tight and constructed and maintained so as to prevent escape of saltwater and oil field wastes. The level of saltwater in excavated pits shall at no time be permitted to rise above the lowest point of the ground surface level. All pits shall have a continuous embankment surrounding them sufficiently above the level of the surface to prevent surface water from entering. Such pits shall not be used in an area which is subject to flooding by streams, rivers, lakes or drainage ditches, unless so constructed that the pits would not normally be affected by flooding. No pit may be used for the ultimate disposal of saltwater. Saltwater and oil field wastes shall be drained or removed and properly disposed of periodically, at intervals not to exceed one hundred eighty days. (C) Pits may be used for the temporary storage of frac-water and other liquid substances produced from the fracturing process, but upon termination of the fracturing process, pits not otherwise permitted by this rule shall be emptied, the contents disposed of in accordance with law and the pits filled in, unless this requirement is waived or extended as provided in section 1509.072 of the Revised Code. (D) In addition to all other remedies provided by law, the chief may prohibit the use or require the repair of any pit or tank which fails to conform to any of the requirements of this rule.</p>
<p>Exempt Waste Handling</p>	<p>Ohio Revised Code 1509.22. Contamination of water prohibited; storage and disposal of brine, duty to water user.</p> <p>(A) Except when acting in accordance with section 1509.226 [1509.22.6] of the Revised Code, no person shall place or cause to be placed brine in surface or ground water or in or on the land in such quantities or in such manner as actually causes or could reasonably be anticipated to cause either of the following: (1) Water used for consumption by humans or domestic animals to exceed the standards of the Safe Drinking Water Act; (2) Damage or injury to public health or safety or the environment. (C) The chief of the division of mineral resources management shall adopt rules and issue orders regarding storage and disposal of brine and other waste substances; however, the storage and disposal of brine and the chief's rules relating to storage and disposal are subject to all of the following standards: (1) Brine from any well except an exempt Mississippian well shall be disposed of only by injection into an underground formation, including annular disposal if approved by rule of the chief, which injection shall be subject to division (D) of this section; by surface application in accordance with section 1509.226 [1509.22.6] of the Revised Code; in association with a method of enhanced recovery as provided in section 1509.21 of the Revised Code; or by other methods approved by the chief for testing or implementing a new technology or method of disposal. Brine from exempt Mississippian wells shall not be discharged directly into the waters of the state. (2) Muds, cuttings, and other waste substances shall not be disposed of in violation of any rule;</p> <p>[1509.22.6] 1509.226. Surface application of brine to roadway and similar surfaces.</p> <p>(A) If a board of county commissioners, a board of township trustees, or the legislative authority of a municipal corporation wishes to permit the surface application of brine to roads, streets, highways, and other similar land surfaces it owns or has the right to control for control of dust or ice, it may adopt a resolution permitting such application as provided in this section.....</p> <p>All resolutions and guidelines shall be subject to the following standards: (1) Brine shall not be applied: (a) To a water-saturated surface; (b) Directly to vegetation near or adjacent to surfaces being treated; (c) Within twelve feet of structures crossing bodies of water or crossing drainage ditches; (d) Between sundown and sunrise, except for ice control. (2) The discharge of brine through the spreader bar shall stop when the application stops. (3) The applicator vehicle shall be moving at least five miles per hour at all times while the brine is being applied. (4) The maximum spreader bar nozzle opening shall be three-quarters of an inch in diameter. (5) The maximum uniform application rate of brine shall be three thousand gallons per mile on a twelve-foot wide road or three gallons per sixty square feet on unpaved lots. (6) The applicator vehicle discharge valve shall be closed between the brine collection point and the specific surfaces that have been approved for brine application. (7) Any valves that provide for tank draining other than through the spreader bar shall be closed during the brine application and transport. (8) The angle of discharge from the applicator vehicle spreader bar shall not be greater than sixty degrees from the perpendicular to the unpaved surface. (9) Only the last twenty-five per cent of an applicator vehicle's contents shall be allowed to have a pressure greater than atmospheric pressure; therefore, the first seventy-five per cent of the applicator vehicle's contents shall be discharged under atmospheric pressure..... (E) No person shall: (1) Apply brine to a water-saturated surface; (2) Apply brine directly to vegetation adjacent to the surface of roads, streets, highways, and other surfaces to which brine may be applied.</p>
<p>Spills</p>	<p>No specific regulation located</p>

Oklahoma		
Topic	Associated Forms	Regulations: http://www.okc.state.ok.us/Divisions/GC/OCCRULES/permrules/CH%2010%20O&G%20RM%207-4.pdf
Permitting	Notice of Intention to Drill Application, Form 1000	<p>Chapter 10 Oil and Gas Conservation 165:10-3-1. Required approval of notice of intent to drill, deepen, re-enter, or recomplete; Permit to Drill</p> <p>(a) Permit to Drill. (1) Except as provided in (1) of this Section, on temporary authorization to commence, the operator shall obtain for the well a Permit to Drill approved by the Conservation Division before: (A) Spudding a well for the exploration for and production of oil or gas. (B) Spudding a well for use as an injection, disposal, or service well. (C) Re-entry into a plugged well. (D) Recompletion of a well. (E) Deepening an existing well. (2) A Permit to Drill shall be valid only for each common source of supply listed on the permit. (3) Any operator who drills, deepens or reenters a well without a permit to drill shall be subject to a fine of \$1,000.00.</p> <p>(c) Expired or revoked Permit to Drill. If a Permit to Drill for a well expires or is revoked, the operator shall be subject to the requirements of (a) of this Section.</p> <p>(d) Casing and cementing requirements. Each Permit to Drill shall list the minimum amount of surface casing to be used or an approved alternative casing and cementing program under 165:10-3-4.</p> <p>(f) Disposal of drilling fluids. (1) The operator shall indicate on Form 1000 the proposed method(s) for disposal of drilling fluids. These methods shall include, but not be limited to: (A) Evaporation/dewatering and leveling of the reserve pit. (B) Soil farming. (C) Recycling. (D) Commercial off-site earthen pit disposal. (E) Annular injection. (F) Hauling to a facility or location other than a commercial earthen pit. (2) If the method in (1)(F) in this subsection is used, the operator shall provide the location to which the drilling fluids are to be hauled. (3) Issuance of the Permit to Drill shall not be construed as constituting approval of the disposal method(s) indicated. An operator who desires to dispose of drilling fluids through either evaporation/dewatering and leveling of the reserve pit, soil farming, commercial earthen pit disposal, or annular injection must comply with 165:10-7-16, 165:10-7-19 or 165:10-9-2, 165:10-9-1, or 165:10-5-13 respectively. (4) If the proposed method for drilling fluid disposal is changed, the operator shall notify the appropriate District Office of the Conservation Division, either by telephone or in writing, within a reasonable time after the change. An amended Form 1000 for the well shall not be required for a change in disposal method.</p> <p>(j) Expiration. (1) Six-month period. Except as provided in (2) of this subsection for expiration after submission of a completion report, a permit to drill shall expire six months from the date of issuance, unless drilling operations are commenced and thereafter continued with due diligence to completion. (2) Six-month extension. A six month extension may be granted without fee providing the Conservation Division staff determines that no material change of condition has occurred, if written request for such extension is received from the operator prior to the expiration of the original permit. Only one extension may be granted.</p>
Well Treatment, Stimulation and Fracturing		<p>165:10-1-6. Duties and authority of the Conservation Division</p> <p>(g) Upon request of the Conservation Division, service companies or other persons shall furnish and file reports and records showing gun perforating, hydraulic fracturing, cementing, shooting, chemical treatment, and all other service operations on any well.</p> <p>165:10-3-10. Fracture and acidizing</p> <p>In the completion of an oil, gas, injection, disposal, or service well, where acidizing or fracture processes are used, no oil, gas, or deleterious substances shall be permitted to pollute any surface and subsurface fresh water.</p>
Well Construction	Well Completion Report, Form 1002A Cementing	<p>165:10-3-3. Surface and production casing</p> <p>(a) Owners, operators, and drilling contractors shall comply with 165:10-3-4 and 165:10-5-2. (b) In the event a rupture, break, or opening occurs in the surface or production casing, the owner, operator, or drilling contractor shall take immediate action to repair it and shall report the occurrence to the appropriate District Office or the Manager of Pollution Abatement. (c) Any operator who fails to timely report a rupture, break, or opening in the surface casing shall be fined \$1,000.00, and the well shall be shut down until it is repaired or plugged.</p>

165:10-3-4. Casing, cementing, wellhead equipment, and cementing reports

(a) Scope.

(1) This Section governs the following:

- (A) Surface casing and cementing requirements.
- (B) Alternate casing and cementing procedure used instead of adequate surface casing and cement.
- (C) Minimum cementing and testing requirements for intermediate and production casing.
- (D) Minimum valve and blowout preventer requirements.
- (E) Cementing reports.

(2) This Section shall apply to the following:

- (A) Wells drilled or reentered for the production of oil, gas or brine.
- (B) Wells drilled or reentered for disposal of oilfield wastes.
- (C) Wells drilled for enhanced recovery injection.
- (D) Wells drilled in subsurface gas storage units created by order of the Commission.
- (E) Other oilfield related service wells.

(b) Effect on area rules.

(1) If any area rules promulgated by order of the Commission require less casing and cement than required by this Section, then this Section shall supersede the area rules.

(2) If an applicable area rule promulgated by order of the Commission has more stringent casing and cementing requirements than what are required by this Section, the Conservation Division shall enforce the area rules.

(c) Surface casing and cementing requirements for wells listed in (a)(2) of this Section:

(1) Minimum surface casing requirements. Unless an alternate casing program is authorized by the Conservation Division or by an order of the Commission, suitable and sufficient surface casing shall be run and cemented from bottom to top with a minimum setting depth which is the greater of:

- (A) Ninety feet below the surface, or
- (B) Fifty feet below the base of treatable water.

(2) Penalty for noncompliance. An operator setting less than the required amount of surface casing or failing to remediate uncirculated cement before resuming operations shall be fined \$5,000.00.

(3) Exceptions to (c)(1). Operators having wells producing hydrocarbons which were in compliance with the surface casing requirements at the time of completion shall not be required to comply with (1) of this subsection.

(4) Well to be used for annular injection under 165:10-5-13. If the operator intends to dispose of drilling or stimulation fluids by annular injection, then the operator shall comply with 165:10-5-13 which requires a surface casing string to be set not less than 200 feet below the base of treatable water, unless a Commission order provides otherwise.

(5) Depth limitation on setting surface casing. The well operator shall run and cement the surface casing string required by this subsection before drilling the well more than 250 feet below the base of treatable water, unless otherwise approved on the Permit to Drill.

(6) Penalties. Operators failing to obtain permission to drill a well more than 250 feet below the treatable water, or to obtain permission for an alternate casing and cementing procedure may be fined \$2,500.00.

(7) Cementing procedures.

(A) Approved methods. Except as provided in (B) of this paragraph for bradenhead cementing, cement shall be run by either the tubing and pump method, the pump and plug method, or the displacement method.

(B) Bradenhead cementing prohibited. Bradenhead cementing is prohibited without written permission from the District Office of the Conservation Division.

(C) Restrictions on stage cementing.

- (i) Above 200 feet. Running cement through small tubulars is permitted above 200 feet in depth without special permission.
- (ii) Below 200 feet. Below 200 feet in depth, the operator shall obtain permission from the District Office of the Conservation

Division before using small tubulars to run cement.

(D) Steel casing required. For purposes of the surface casing requirements of this Section, surface casing shall be oil field grade steel casing.

(E) Witnessing of setting of surface casing. The operator shall give at least 24 hours notice by telephone to the appropriate District Office or Field Inspector as to the time when surface casing will be run.

(F) Minimum cement setup time. The cement behind the surface casing shall set at least eight hours before further drilling.

(G) Down-hole testing of surface casing and cement. Before drilling the shoe of the surface casing, the operator shall test the surface casing using the procedure prescribed by (f) of this Section.

(H) Failure to circulate cement or fall back of cement behind surface casing.

(i) Verifying the top of cement. If no conductor string is set and the cement did not circulate to the surface or falls back more than five feet, the operator shall determine the top of the cement using a method approved by the District Manager or Field Inspector.

(ii) Top of cement less than 200 feet from the surface. If the top of the cement is found less than 200 feet from the surface, the operator may circulate cement to surface using small tubulars.

(iii) Top of cement greater than 200 feet from the surface. If a conductor string has been set and the cement has been found to be ten feet or more above the base of the conductor string, no corrective action is required. If no conductor string has been set and the top of the cement is greater than 200 feet from the surface, the operator shall perform a corrective cementing operation by circulating cement to the surface from a point 50 feet below the base of the treatable water or from the determined top of the cement, whichever is shallower. The District Manager or Field Inspector may grant permission to circulate cement through small tubulars.

(I) Insufficient surface casing or mechanical failure. Within 24 hours after discovery of a problem with the surface casing or cement, the

		<p>operator shall notify the appropriate District Office of the Conservation Division by telephone of:</p> <ul style="list-style-type: none"> (i) Any mechanical failure of the surface casing or cement. (ii) Discovery of a treatable water formation below the shoe of the surface casing. <p>(J) Penalty. An operator, failing to report a rupture, break, or opening in the surface casing, shall be fined \$1,000.00 and the well shut down.</p> <p>(K) Notice. The District Manager or Field Inspector shall be given at least 24 hours notice prior to any cementing operation in order that they may have the opportunity to witness.</p> <p>(d) Alternate casing and cementing procedures.</p> <ul style="list-style-type: none"> (1) Requirement of approval on the Permit to Drill. Use of an alternative casing and cementing procedure instead of surface casing and cement required by (c) of this Section is prohibited without authorization on the Permit to Drill for the well. (2) Disapproval. The Manager of Technical Department may not issue a permit for an alternate casing string and cementing procedure if one or more of the following conditions exist: <ul style="list-style-type: none"> (A) The well will penetrate a known lost circulation zone. (B) The treatable water bearing formation(s) will be endangered. (C) The projected depth of the well is less than 100 feet from the top of any authorized secondary project or gas storage facility. (3) Applicability of other casing and cementing standards. Alternate casing and cementing procedures under this subsection are subject to the provisions of (c)(7) of this Section. (4) Alternate casing and cementing procedure. <ul style="list-style-type: none"> (A) An operator having permission to run an alternate casing string may, for protection of the treatable water, drill the well to casing point and circulate cement to the surface, or circulate cement from a depth of 100 feet below the base of treatable water to the surface after following the procedures set out in (f) of this Section. (B) Oil based drilling mud shall be prohibited. (C) If a well is completed using an alternate casing and cementing procedure, a bond log covering the interval from 100 feet below the base of the treatable water to the surface shall be required. The District Manager may waive this requirement. A completion attempt, in cases where the protection of treatable water is questionable, is strictly prohibited. (D) Unless extended by the District Manager, the operator shall have 72 hours after drilling and testing is completed to run production casing or plug the well. A minimum of 24 hours prior notice must be given to the appropriate District Office prior to cementing operations so that a Field Inspector may have the opportunity to witness the cementing or plugging procedures. If the well is plugged and abandoned, procedures set out in (e) of this Section shall be followed. (E) In the event that casing is run and cement does not circulate to the surface, or falls back, the operator shall determine the top of the cement using a method approved by the District Manager. (5) Remedial actions. <ul style="list-style-type: none"> (A) If the top of the cement is less than 200 feet from the surface, the operator may circulate cement from that point to the surface using small tubulars or by perforating the casing at that point and circulating cement to the surface. (B) If the top of the cement is greater in depth than 200 feet, the operator shall perforate the casing at the top of the cement and circulate cement to the surface, or with the written permission of the Field Inspector, use small tubulars. (C) In the event that a conductor string had been set and the top of the cement is at least ten feet above the base of the conductor casing no remedial action is needed. (D) Unless waived by the District Office, all corrective cementing operations shall be approved and witnessed by the Field Inspector. (E) In wells where corrective actions were needed for casing or cementing problems, a completion attempt shall not be made without approval by the District Manager. <p>(g) Pressure testing of casing strings.</p> <ul style="list-style-type: none"> (1) Before drilling the cement plug in a casing string, the operator shall pressure test the installed casing for 30 minutes at a minimum pressure which is the lesser of the surface gauge pressure equal in pounds per square inch to 0.2 of the length of the casing in feet or 1500 psig. (2) During the 30 minute test, if the surface pressure drops ten percent or more, the operator shall: <ul style="list-style-type: none"> (A) Repair and retest the casing until the requirements of this subsection are met; or (B) Plug the well according to the rules of this Chapter.
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Notice of Temporary Exemption from Well Plugging, Form 1003A</p>	<p>165:10-11-3. Duty to plug and abandon</p> <p>(g) Wells exempted from plugging.</p> <p>The following wells which have production casing in place shall be exempt from (e) of this Section:</p> <ul style="list-style-type: none"> (1) Shut-in gas wells, for the purpose of this Section, shall be considered producing wells in operation. (2) Any well for which a written order of the Commission granting a specific exception to plugging is in full force and effect. (3) Supply wells or wells authorized by order of the Commission for injection or disposal purposes and are in compliance with the rules of the Commission. (4) Any well for which a temporary exemption from the plugging rules has been approved. <p>165:10-11-9. Temporary exemption from plugging requirements</p> <p>(a) Scope.</p> <p>The Commission may permit any well which is required to be properly abandoned pursuant to OAC 165:10-11-3 and OAC 165:10-11-5, at the request of an operator, to be temporarily abandoned.</p> <p>(b) Application.</p>

		<p>An application for a permit to temporarily exempt a well from the plugging requirement shall be made on Form 1003A completed in its entirety, and submitted to the appropriate Conservation Division's District Office.</p> <p>(c) Permit.</p> <p>(1) Any operator seeking approval for temporary abandonment shall submit a notice of intent to temporarily abandon the well, Form 1003A, to the appropriate District Office describing the temporary abandonment procedure used.</p> <p>(2) The permit will be valid for a period of five (5) years. At least 30 days prior to the expiration of any approved temporary abandonment permit, the operator shall return the well to beneficial use in accordance with Commission rules, permanently plug and abandon said well, or apply for a new permit to temporarily abandon the well.</p> <p>(3) No temporary abandonment will be approved that does not prevent the contamination of treatable water and/or other natural resources and the leakage of any substance at the surface.</p> <p>(4) If the well fails the tests required herein the problem shall be found, corrected and a new test successfully conducted within 30 days or the well shall be plugged and abandoned in accordance with Commission rules.</p> <p>(5) Upon successful completion of the work on the temporarily abandoned well, the operator will submit a new request for temporary abandonment to the appropriate District Office.</p> <p>(d) Protection of treatable water. The treatable water shall be protected by one or more of the following:</p> <p>(1) A drillable, retrievable or temporary bridging plug set above the producing interval and below the top of the cement. The surface shall be capped with a valve in operational condition. A pressure test may be required by the appropriate District Office.</p> <p>(2) A packer run on tubing and set above the producing interval and below the top of the cement. The well shall be equipped with suitable wellhead packoff equipment and be closed to the atmosphere.</p> <p>(3) A fluid level test determined by use of equipment approved by the Conservation Division's Field Operations Department. The fluid level must be no higher than 150 feet below the base of the treatable water. The Field Inspector shall be notified at least 48 hours beforehand to be afforded the opportunity of witnessing the procedure. Fluid level tests must be conducted annually each of the five (5) years during the anniversary month of the permit. Additional tests may be required at any time at the request of the Conservation Division's Field Operations Department. The wellhead shall be closed to the atmosphere.</p> <p>(4) A casing inspection log confirming the mechanical integrity of the production casing submitted to the appropriate Conservation Division's District Office.</p> <p>(5) Alternate methods of testing may be approved by the Conservation Division's Field Operations Department by written application and upon showing that such a test will provide information sufficient to determine that the well does not pose a threat to natural resources.</p> <p>(f) Termination of permit.</p> <p>The permit for a temporary exemption from plugging shall terminate and plugging operations shall commence within 30 days after:</p> <p>(1) The time interval set has lapsed and a renewal has not been granted.</p> <p>(2) The lease or unit on which the exempted well was located has become nonproductive.</p> <p>(3) The fluid level has risen to a point less than 150 feet below the base of the treatable water.</p> <p>(4) The Conservation Division's Field Operations Department has determined that the surface area or wellhead equipment requirement does not meet the standards required by the Commission.</p> <p>(g) Exception to termination of permit.</p> <p>An exception to the termination of an exemption from the plugging requirements shall be allowed if:</p> <p>(1) An application to convert the well to a disposal, injection, or supply well has been filed with the Commission, and proper notice, according to OAC 165:5, has been met.</p> <p>(2) An application requesting an exception to the plugging rules has been filed with the Commission and an exception has been granted by an order of the Commission.</p>
<p>Well Plugging</p>	<p>Notification of Intention to Plug, Form 1001</p> <p>Plugging Record, Form 1003</p> <p>Cementing Report, Form 1002C</p>	<p>165:10-11-3. Duty to plug and abandon</p> <p>(a) Scope.</p> <p>This Section applies to:</p> <p>(1) Joint and several liability of the owners and operator of a well for plugging.</p> <p>(2) Time periods for plugging wells:</p> <p>(A) Without casing.</p> <p>(B) With only surface casing and cement.</p> <p>(C) With production casing.</p> <p>(3) Wells exempted from plugging.</p> <p>(4) Notice of Temporary Exemption from Plugging granting permission to postpone plugging of a well.</p> <p>(b) Joint and several liability of owners and operators.</p> <p>Any working interest owner and operator of any oil, gas, disposal, injection, or other service well or any seismic, core, or other exploratory hole, whether cased or uncased, shall be jointly and severally liable and responsible for the plugging thereof in accordance with this Subchapter.</p> <p>(c) Time period for plugging well without casing.</p> <p>Each well in which neither production casing nor surface casing has been run shall be properly plugged within 72 hours after drilling or testing is completed. However, should the lack of production and surface casing create a fire hazard or a risk of contaminating the environment or formations containing oil, gas, or known treatable water, said well shall be properly plugged within 24 hours after drilling and testing is completed. The well marker requirement described in 165:10-3-4 (e) shall be followed.</p> <p>(d) Time period for plugging well with only surface casing and cement.</p> <p>Each well in which only surface casing has been run and cemented in conformance with 165:10-3-4 shall be properly plugged within 90 days after drilling or testing is completed unless the lack of production or intermediate casing creates a fire hazard or risk of contaminating the environment or formations containing oil, gas, or known treatable water, in which case the well shall be plugged within 24 hours.</p> <p>(e) Time period for plugging well with production casing.</p>

Unless exempted under provisions contained elsewhere in this Section, any well which has production casing in place shall be plugged within one year after the latter of:

- (1) Cessation of drilling if the well was not completed or tested; or
- (2) Cessation of the latter of completion or testing if the well has not produced; or
- (3) Cessation of production.
- (4) From April 1, 1998, to March 31, 1999, the time period for plugging of any producing well with production casing in place that has ceased

production shall be two years. The Commission shall review the need for the continued effectiveness of this provision during the time period set forth above on a quarterly basis. This provision shall not apply to any well that poses a public health, safety or pollution threat to the environment and surface or subsurface waters of the state.

(f) Operators failing to commence timely plugging operations.

An operator who fails to commence plugging operations as required in (c), (d), and (e) of this Section after due notice from the District Office or the appropriate field inspector may be fined up to \$1,000.00.

165:10-11-4. Notification and witnessing of plugging

(a) Wells without production casing.

The Conservation Division shall be notified at least 12 hours prior to commencement of plugging operations and a plugging procedure agreed upon for any well without production casing. Each plugging operation may be witnessed by an authorized representative of the Conservation Division.

(b) Wells with production casing.

A separate Notification of Intention to Plug (Form 1001) for each well with production casing shall be filed, in duplicate, with the Conservation Division at least five days prior to the commencement of plugging operations. The five day notice requirement may be reduced or waived:

- (1) If a qualified representative of the Conservation Division is available to witness the plugging operation.
- (2) At the discretion of the District Manager of the District in which the well is located or his supervisor.

165:10-11-6. Plugging and plugging back procedures

(a) Scope.

This Section establishes minimum standards for plugging and plugging back wells. The standards apply to:

- (1) Wells drilled for the production of oil or gas.
- (2) Wells drilled or used for disposal or enhanced recovery injection.
- (3) Wells used in subsurface gas storage units.
- (4) Monitoring wells in enhanced recovery projects or subsurface gas storage units.
- (5) Wells plugged back for:
 - (A) Oil or gas production.
 - (B) Disposal or injection.
 - (C) Conversion to a water well.
- (6) "Rat hole" or "mouse holes" used in rotary drilling of wells.
- (7) Wells used for geophysical or geological exploration.
- (8) Wells used for other service operations.

(b) Alternate plugging materials and procedures

(1) The Manager of Field Operations, or other designated Conservation Division staff member, may approve the use of an alternate material other than cement or in combination with cement for wells listed in subsection (a), provided alternate plugging materials shall not be used to plug or plug back wells listed in subsection (a)(2), wells drilled or used for disposal or enhanced recovery injection, subsection (a)(3), wells used in subsurface gas storage units, subsection (a)(5)(B), wells plugged back for disposal or injection, and underground injection wells authorized under the Oklahoma Brine Development Act, 17 O.S. Section 500 et seq.

(2) The Director of Oil and Gas Conservation, in consultation with the Conservation Division's Field Operations staff and the public, shall develop specific plugging criteria for any type of alternate plugging material authorized for use instead of cement or in combination with cement. The plugging criteria for approved alternate material shall be available to the public for review and copying at the Conservation Division's offices and on the Commission's Internet website.

(3) A District Manager may approve alternate plugging procedures for the use of alternate plugging materials.

(4) A detailed description of the alternate plugging operation shall be included with the Plugging Report (Form 1003).

(5) The District Manager shall note his approval of the alternate plugging procedure on the well's Plugging Report (Form 1003).

(6) Any alternate plugging material or procedure shall conform to the minimum plugging standards relating to formations or depths set forth in the Sections below. Provided, based upon the type of alternate plugging material being utilized, the District Manager approving the alternate procedure may authorize variances to the plugging standards delineated in this Section otherwise applicable to the use of cement, where such variances are necessary to ensure an effective well plugging.

(c) Application and cross references:

(1) Subsection (n) of this Section provides for administrative approval of alternative plugging procedures if downhole problems in a wellbore prevent an operator from complying with the minimum standards established by this Section.

(2) Subsection (o) of this Section applies to plugging of "rat holes" and "mouse holes" used at the surface during rotary drilling.

(3) OAC 165:10-11-8 establishes additional procedures for identification and control of wellbores in which certain logging tools have been abandoned.

(4) OAC 165:10-7-31 establishes the minimum standards for plugging wellbores used in seismic exploration.

(5) Subsections (d) through (p) of this Section establish plugging and plug back standards for all other wellbores subject to this Section.

(d) Formations to be plugged.

(1) Except as provided in (2) of this subsection, for cased formations, if the operator plugs or plugs back a well, the operator shall plug any formation or formations in communication with a formation that:

- (A) Bears H₂S;
- (B) Bears oil or gas;
- (C) Bears treatable water;
- (D) Was used in the wellbore for injection as part of a saltwater disposal well or enhanced recovery injection well; or
- (E) Is open in the wellbore below either the shoe of the casing or the base of the liner to be left in the well after plugging.

(2) Paragraph (1) of this subsection shall not apply to any formation behind the pipe left in the hole, unless a formation endangers a treatable water formation or any oil and gas bearing formation.

(e) Mud requirements.
Before running a plug, the operator shall remove or displace all oil and saltwater in the wellbore, and the operator shall fill the wellbore with drilling mud. The minimum mud weight shall be nine pounds per gallon. The minimum viscosity for the drilling mud shall be 36 (API Full Funnel Method). If the operator removes casing from the wellbore, the operator shall keep the wellbore filled with drilling mud meeting or exceeding the weight and viscosity requirements of this subsection.

(f) Approved cementing methods.

(1) Cement plugs.

- (A) To plug or plug back a well, either the tubing and pump method or the pump and plug method shall be used.
- (B) Surface pumping and shut in pressures shall be of sufficient pressure to:
 - (i) Squeeze off perforations in the casing.
 - (ii) Prevent the plug from floating upward in the wellbore.

(2) Bridge plugs. The operator may run by the bailer method cement required in the casing above a bridge plug as provided by (g) of this Section.

(g) Use of bridge plugs.

(1) Permitted use. Except as provided in (2) of this subsection for top plugs, a bridge plug may be used to permanently plug off a formation if:

- (A) The only openings from the formation into the wellbore are perforations in the casing.
- (B) The annulus between the casing and the formation is filled with cement from a depth 50 feet below the base of the formation to a depth 50 feet above the top of the formation.
- (C) The bridge plug is set above the top of the perforations in the cemented interval described in (B) of this paragraph.
- (D) Sufficient cement is placed on top of the bridge plug to fill the casing from the top of the bridge plug to a depth ten feet above the top of the bridge plug.

(2) Prohibited use for top plug. A bridge plug may not be used for a top plug described in (j) of this Section.

(h) Cement plug for uncased hole below the casing or liner.
If any production casing or liner is to be left in the wellbore, then any uncased hole below the casing or liner shall:

- (1) Be filled with cement:
 - (A) From a depth which is the lesser of total depth of the well or 50 feet below the lower of shoe of the casing or base of the liner.
 - (B) To a depth of 50 feet above the lower of the casing shoe or the base of the liner; or
- (2) Have a cast iron bridge plug set above the top of the liner with cement.

(i) Intermediate cement plugs.
If a bridge plug and cement are not used, a cement plug shall be run over any other formation required to be plugged off by this Section. To plug off a formation, the wellbore shall be filled with cement from a depth at least 50 feet below the base of the formation to a depth at least 50 feet above the top of the formation.

(j) Cement top plug.

- (1) No treatable water exists. If no treatable water exists, the wellbore shall be filled with cement from a depth of at least 30 feet to a depth of three feet from the surface.
- (2) Treatable water exists. Except as provided in (p) of this Section for converting a well to a water well, the wellbore shall be filled with cement as follows:
 - (A) If there is no surface casing or the base of the surface casing is 25 feet or further above the base of the treatable water, the wellbore shall be filled with cement from a depth of at least 50 feet below the base of the treatable water to a depth the lesser of:
 - (i) Fifty feet above the base of treatable water; or
 - (ii) Three feet below surface.
 - (B) If the surface casing is set at or below the base of the treatable water, the wellbore shall be filled with cement from a depth of at least 50 feet below the base of the surface casing to a depth the lesser of:
 - (i) Fifty feet above the base of the surface casing; or
 - (ii) Three feet below surface.
 - (C) If the cement plug prescribed by (2) of this subsection is not sufficient to bring the level of cement to within three feet from the surface, then the wellbore shall be filled with cement from a depth of at least 30 feet to a depth of three feet from the surface.

(k) Cutting off surface pipe and identification of the abandoned wellbore.

- (1) This subsection applies to a wellbore plugged for abandonment. It does not apply to a wellbore plugged back for conversion to a water well under (p) of this Section.
- (2) After setting the top plugs in a well, the operator shall cut off the casing left in the wellbore three feet below surface, and the operator shall cap the casing in the wellbore with a steel plate.
- (3) The operator shall inscribe or embed the well number and date of plugging on the steel plate.

(l) Tagging the top of the plug.
The Field Inspector for the Conservation Division may require the operator to determine the depth of the top of a plug by running a wireline or tubing string.

		<p>(m) Fall back of cement. If the cement for a plug falls back during setting below the top depth required by this Section, the operator shall run additional cement until the plug meets the minimum requirements of this Section.</p> <p>(n) Alternative plugging procedure for down-hole problems.</p> <p>(1) In plugging a well, if the operator encounters a downhole problem which prevents the operator from complying with the standards of this Section, the District Manager may prescribe an alternative plugging procedure provided that the alternative plugging procedure prevents the vertical migration in the wellbore of oil, gas, saltwater, H₂S, and other deleterious substances into a formation bearing oil, gas, or treatable water.</p> <p>(2) The District Manager shall note his approval of the alternative plugging Procedure on the well's Plugging Report (Form 1003).</p>
<p>Tanks</p>		<p>165:10-3-12. Leakage prevention in producing oil and gas wells</p> <p>All wellhead connections, surface equipment, and tank batteries shall be maintained at all times so as to prevent leakage of oil, gas, saltwater, or other deleterious substances.</p> <p>165:10-3-13. Water pollution prevention in tanks; protection of migratory Birds</p> <p>(a) Tanks for drilling mud or deleterious substances used in the drilling, completion, or recompletion of wells shall be constructed and maintained so as to prevent pollution of surface and subsurface fresh water.</p> <p>165:10-3-29. Oil storage</p> <p>Oil storage tanks shall be constructed so as to prevent leakage. Dikes or walls, where necessary, shall be constructed so as to prevent oil or deleterious substances from polluting surface and subsurface water.</p>
<p>Pits</p>	<p>Request for Reserve Pit Requirements, Form 1000A</p> <p>Application for Permit to Use Earthen Pit, Form 1014</p>	<p>165:10-7-16. Use of noncommercial pits</p> <p>(a) Scope. This Section shall cover the permitting, construction, operation, and closure requirements for any noncommercial pit. A noncommercial pit is an earthen pit which is located either on-site or off-site and is used for the handling, storage, or disposal of drilling fluids and/or other deleterious substances produced, obtained, or used in connection with the drilling and/or operation of a well or wells, and is operated by the generator of the waste. This does not cover disposal well pits. (See 165:10-7-20 and 165:10-9-3.)</p> <p>(b) Liner requirements.</p> <p>(1) Reserve/circulation and/or completion/fracture/workover pits.</p> <p>(A) To assist in determining the construction requirements for a particular proposed reserve/circulation pit, either on-site or an off-site, the operator of the pit shall indicate on Form 1000 the type of mud system(s) to be used, the maximum and average anticipated chloride concentration of the mud (based on drilling records in the area), whether or not pit fluids will be segregated, and shall furnish other information required by this Section or requested by the Commission's Technical Department.</p> <p>(B) The Commission's Technical Department shall evaluate the site based upon Oklahoma Geological Survey maps and other pertinent information and shall assign one of the following categories to any proposed reserve/circulation pit, designating same on Form 1000 and indicating whether or not a liner is required:</p> <p>(i) Category 1A – Geomembrane liner.</p> <p>(I) Water based drilling fluid containment and/or water-based completion/fracture/workover fluid containment located over a alluvial deposit or in a near surface static water level environment. Any pit used to contain water-based drilling fluids, cuttings and/or completion/ fracture/ workover fluids located in alluvial deposit area or an area where the static water table is within 10 feet of the surface shall utilize a geomembrane liner for all drilling fluids and cuttings and/or completion/ fracture/ workover fluids.</p> <p>(II) Water-based drilling fluid containment and/or water-based completion/fracture/workover fluid containment located within a wellhead protection area. Any pit used to contain water-based drilling fluids, cuttings and/or completion/fracture/workover fluids located within a wellhead protection area (WPA) as identified by the Wellhead Protection Program (42 U.S.C. Section 300h-7, Safe Drinking Water Act), or within one mile of an active municipal water well for which the WPA has not been delineated, shall be required to have a geomembrane liner.</p> <p>(ii) Category 1B – Soil liner or geomembrane liner.</p> <p>(I) Water-based drilling fluid containment and/or water-based completion/fracture/workover fluid containment located over a terrace deposit. Any pit used to contain water-based drilling fluids, cuttings and/or completion/ fracture/ workover fluids located over a terrace deposit shall be required to have either a soil liner or a geomembrane liner.</p> <p>(II) Water-based drilling fluid containment and/or water-based completion/fracture/workover fluid containment located over a bedrock aquifer or Hydrologically Sensitive Area(HSA). Any pit used to contain water-based drilling fluids, cuttings and/or completion/ fracture/workover fluids located over any bedrock aquifer or HSA and is used to contain water-based drilling fluids and/or cuttings and/or completion/fracture/workover fluids with chlorides in excess 5,000 mg/l shall be required to have a soil liner or a geomembrane liner. A separate unlined pit may be used to contain fluids and/or cuttings with a chloride content of less than of 5,000 mg/l.</p> <p>(iii) Category 2 - Water-based/other situations. Any pit which is used to contain water-based drilling fluids, cuttings and/or completion/fracture/ workover fluids with a set of conditions different from Categories 1A and 1B shall not be required to be lined.</p> <p>(iv) Category 3 - Oil-based. Any pit used to contain oil-based drilling fluids, cuttings and/or completion/fracture/workover fluids shall be required to have a geomembrane liner.</p> <p>(v) Category 4 – Air-based. Any pit used to contain the cuttings from an air-based system shall not be required to be lined. The discharge of produced water into a category 4 pit is prohibited.</p> <p>(2) Other type pits.</p> <p>(A) Any basic sediment pit shall be required to have a geomembrane liner.</p> <p>(B) Any emergency pit shall not be required to be lined.</p>

(C) Any flare pit shall not be required to be lined.

(D) Any recycling/reuse pit, spill containment pit, or remediation pit shall conform to the same criteria for determining liner requirements for reserve/circulation and/or completion/fracture/workover pits, pursuant to (b)(1) of this Section.

(3) Converted pits. Any pit that is to be converted from one use to another, e.g., reserve pit to completion or fracture pit, shall have the more stringent liner requirements, pursuant to (c)(6) and (c)(7) of this Section.

(4) Offsite pits. Any offsite pit shall conform to the liner requirements in this Section and will require a permit. The operator of the proposed pit shall submit Form 1014 in duplicate to the appropriate District Office for review and approval. No offsite reserve pit may be permitted or constructed at a spacing closer than one pit per governmental quarter quarter section and a distance less than 600 feet from any other pit. Any offsite reserve pit may be reclassified or considered as a commercial pit, pursuant to 165:10-9-1, if it is constructed or used at a spacing closer than one reserve pit per governmental quarter quarter section. Closure of any offsite reserve pit shall not warrant the permitting of another offsite reserve pit within the same governmental quarter quarter section. For use of a pit without a permit, the pit operator may be fined up to \$1,000.00.

(5) Variances. Any variance from the liner requirements of this Section may be granted by the Manager of the Technical Department after receipt of a written request and supporting documentation required by the Department.

(c) Construction requirements.

(1) Field or area rules. Any noncommercial pit which is to be constructed or used in an area covered by a field or area rule shall be subject to the more stringent requirements of either this Section or the field or area rule.

(2) Stockpiling of topsoil. Prior to constructing any noncommercial pit, except an emergency pit, all top soil within the top twelve inches shall be stripped and stockpiled for use as the final cover of fill at the time of closure. The top soil may be stockpiled in the berms, provided it is not mixed with other materials and can be readily distinguishable from other materials at the time of closure.

(3) Exclusion of runoff water. Any noncommercial pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter it.

(4) Flood protection. Any noncommercial pit which is constructed in any area subject to frequent flooding according to the Soil Conservation Service County Soil Survey shall have berms substantial enough to prevent overtopping or washing out.

(5) Constructing on fill. Any noncommercial pit which requires a liner and is constructed on fill shall be constructed so that the maximum level of the solid contents will be maintained at least three feet below the natural ground level.

(6) Soil liners.

(A) Soil materials used or to be used in a soil liner shall undergo permeability testing either before or after construction, unless exempt pursuant to (B) of this paragraph.

(i) Pre-construction permeability testing shall consist of laboratory permeability tests on at least two specimens of representative soil liner materials compacted in the laboratory to approximately 90 percent of the material's Standard Proctor Density (ASTM D-698).

(ii) Post-construction permeability testing shall consist of at least two laboratory permeability tests on undisturbed samples of the completed soil liner or one field permeability test on the completed soil liner. Particular emphasis shall be placed on selecting the location(s) for permeability tests or test samples where nonuniformity in soil texture or color can be observed.

(iii) Laboratory permeability test procedures must conform to one of the methods described for fine-grained soils in the Corps of Engineers Manual EM-1110-2-1906 Appendix VII. In no case shall the pressure differential across the specimen exceed five feet of water per inch of specimen length. Field permeability tests shall be conducted only by the double ring infiltrometer method as described in ASTM D-3385. Permeability tests may be discontinued prior to flow stabilization upon satisfactory evidence that the permeability rate is less than 1.0×10^{-6} cm/sec.

(iv) If permeability testing shows that addition of bentonite or other approved material is needed to assist the native soils in meeting the permeability standard, it shall be applied at a minimum rate specified by the testing or engineering firm. Any bentonite used for liner material shall not have been previously used in drilling muds.

(B) Permeability testing requirements for soil materials may be exempt if laboratory testing of a minimum of two representative samples of the soil materials found throughout the entire depth of the proposed excavation indicates that the plasticity index is greater than 16 (ASTM D-4318) and that the amount passing the No. 200 U.S. standards sieve is greater than 60 percent (ASTM D-1140).

(C) Any soil liner shall be constructed by disturbing the soil to the depth of the bottom of the liner, applying fresh water as necessary to the soil materials to achieve a moisture content wet of optimum, then recompacting it with heavy construction equipment, such as a footed roller, until the required density is achieved, pursuant to (H) of this paragraph.

(D) Any soil liner shall cover the bottom and interior sides of the pit entirely.

(E) Any soil liner shall be installed on a slope no steeper than 3:1 (horizontal to vertical).

(F) Any soil liner shall have a minimum thickness of six inches (after compaction), and shall have a maximum coefficient of permeability of 1.0×10^{-6} cm/sec, unless it conforms to (G) of this paragraph.

(G) A soil liner may have a coefficient of permeability greater than 1.0×10^{-6} cm/sec if it is greater in thickness and constructed in accordance with the following:

(i) A minimum twelve inch compacted soil liner shall have a maximum coefficient of permeability of 2.0×10^{-6} cm/sec.

(ii) A minimum 18 inch compacted soil liner shall have a maximum coefficient of permeability of 3.0×10^{-6} cm/sec.

(iii) A compacted soil liner may not be constructed thicker than 18 inches for the purpose of meeting a coefficient of permeability greater than 3.0×10^{-6} cm/sec.

(iv) Any soil liner with a minimum twelve inch or 18 inch thickness shall be constructed in maximum lifts of six inches (after compaction). Each lift shall be scarified before placement of the next lift and shall conform to (H) of this paragraph.

(H) Any soil liner shall be field tested for compaction, unless a post construction permeability test is performed, pursuant to (A)(ii) of this paragraph.

(i) A minimum of six compaction tests shall be performed on any soil liner; a minimum of four widely spaced tests in the bottom of the pit and two tests on different slopes of the pit are required, unless otherwise directed by a Field Operations representative. Particular emphasis shall be placed on selecting locations for compaction tests where nonuniformity in soil texture or color can be observed.

(ii) Compaction tests shall be conducted in accordance with ASTM methods D-2922 or D-1556.

		<p>(iii) The soil materials of any liner shall be compacted to at least 90 percent of the Standard Proctor Density (ASTM D-698).</p> <p>(7) Geomembrane liners.</p> <p>(A) Any geomembrane liner that is installed in a reserve/circulation pit, spill prevention pit, or remediation pit, completion/fracture/workover pit, basic sediment pit, or recycling/reuse pit shall have a minimum thickness of 20-mil.</p> <p>(B) Any geomembrane liner used in a noncommercial pit shall be chemically compatible with the type of substances to be contained and shall have ultraviolet light protection.</p> <p>(C) Any geomembrane liner shall be placed over a specially prepared, smooth, compacted surface void of sharp changes in elevation, rocks, clods, organic debris, or other objects.</p> <p>(D) Any geomembrane liner shall be continuous, although it may include seams, and shall cover the bottom and interior sides of the pit entirely. The edges shall be securely placed in a minimum twelve inch deep anchor trench around the perimeter of the pit.</p> <p>(8) Certification of liner. The operator of any noncommercial pit that is constructed with a soil or geomembrane liner shall secure an affidavit signed by the installer, certifying that the liner meets minimum requirements and was installed in accordance with Commission rules. It shall be the operator's responsibility to maintain the affidavit and all supporting documentation pertaining to the liner (e.g., permeability and compaction test results, bentonite receipts, and geomembrane liner specifications from the manufacturer), and shall make them available at all times for review by any representative of the Conservation Division.</p> <p>(d) Operation and maintenance requirements.</p> <p>(1) Freeboard. The fluid level of any noncommercial pit shall be maintained at all times at least 24 inches below the lowest elevation on the top of the berm.</p> <p>(2) Reserve/circulation pits. The operator of any reserve/ circulation pit shall limit its contents to the fluids and cuttings from a single well unless authorized by the District Manager.</p> <p>(3) Off-site reserve pits. A waterproof sign shall be posted within 25 feet of any off-site reserve pit and shall bear the name of the operator, legal description to the quarter quarter quarter section, permit number, and emergency telephone number.</p> <p>(4) Recycling/reuse pits.</p> <p>(A) Any pit permitted for drilling mud recycling or reuse may contain the fluids and cuttings from multiple wells, provided that those wells are operated by the pit operator.</p> <p>(B) A waterproof sign shall be posted within 25 feet of any recycling/reuse pit and shall bear the name of the operator, legal description to the quarter quarter quarter section, permit number, and emergency telephone number.</p> <p>(5) Prevention of pollution.</p> <p>(A) All noncommercial pits shall be constructed, used, operated, and maintained at all times so as to prevent pollution. In the event of a nonpermitted discharge from a noncommercial pit, sufficient measures shall be taken by the operator to stop or control the loss of contents, and reporting procedures pursuant to 165:10-7-5(c) shall be followed.</p> <p>Any materials lost from a pit shall be cleaned up as directed by any Field Operations representative. For a willful non-permitted discharge from a noncommercial pit, the operator may be fined up to \$2,000.00.</p> <p>(B) The protection of migratory birds shall be the responsibility of the operator. Therefore, the Conservation Division recommends that to prevent the loss of birds, oil be removed or the surface area covered by the oil be protected from access to birds. [See Advisory Notice 165:10- 7-3(c)].</p> <p>(e) Closure requirements.</p> <p>(1) Designation of disposal method. The operator of any reserve/ circulation pit shall indicate the proposed method of disposal of drilling fluids and/or cuttings on Form 1000 as required by 165:10-3-1(f). Options shall be limited to the following, unless written approval is granted by a Field Operations Representative:</p> <p>(A) Evaporation/dewatering and backfilling.</p> <p>(B) Chemical solidification of pit contents.</p> <p>(C) Annular injection (requires permit).</p> <p>(D) Land application (requires permit).</p> <p>(E) Disposal in permitted commercial pit.</p> <p>(F) Disposal at permitted commercial soil farming facility.</p> <p>(G) Disposal at permitted recycling/reuse facility.</p> <p>(2) Trenching.</p> <p>(A) Before trenching, stirring or otherwise disturbing the bottom of any noncommercial pit, the pit shall be completely dewatered.</p> <p>(B) Trenching, stirring, or other similar practice shall be prohibited for any lined pit.</p> <p>(3) Lined pits.</p> <p>(A) When closing any noncommercial pit with a soil or geomembrane liner, extreme care shall be taken to preserve the integrity of the liner.</p> <p>(B) For any lined reserve/circulation pit, completion/fracture/workover pit, recycling/reuse pit, or basic sediment pit, all free liquids shall be removed or chemically solidified with nonhazardous material.</p> <p>(C) For any lined oil-based reserve/circulation pit, all cuttings remaining in the pit shall be chemically solidified with nonhazardous material.</p> <p>(D) Soil cover, pursuant to (5) of this subsection, shall follow.</p> <p>(4) Soil cover. Closure procedures for any noncommercial pit shall include a minimum of three feet of soil cover over any remaining pit contents, with all stockpiled topsoil being applied last. The materials shall be mounded or sloped to encourage runoff. A variance from this provision may be granted by a Field Operations District Office for justifiable cause. A written request and supporting documentation is required. The Field Operations office shall respond in writing within five working days either approving or disapproving the request.</p> <p>(5) Erosion control. Any noncommercial pit shall be closed in such a manner that any future erosion will not cause the discharge of the pit contents. This may require vegetative cover and/or a diversion terrace(s).</p> <p>(6) Notification to District Office. The operator of any noncommercial pit shall notify the appropriate Field Inspector or District Office at least 48 hours</p>
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prior to commencing closure, and for reserve/circulation pits shall advise if the disposal method is different from that indicated on Form 1000. The operator shall also notify the Field Inspector or District Office within 48 hours after reclamation of the site has been completed.

(7) Time limits. Any noncommercial pit shall be closed within the time limits set forth in this paragraph. Any extension of time for pit closure must be requested by the operator, who shall file an application pursuant to OAC 165:5-7-33. A legal change of operator of any noncommercial pit shall not extend the time limit for closure. If a noncommercial pit is converted from one type of use to another, the last use shall determine the time limit for closure.

(A) Any Category 1A, 1B or 3 2 reserve/circulation pit, either on-site or off-site, shall be closed within twelve months after drilling operations cease.

(B) Any Category 3 reserve/circulation pit, either on-site or off-site shall be closed within six months after drilling operations cease.

(C) Any Category 4 pit shall have closure procedures commenced within 30 days and completed within 90 days after drilling operations cease.

(D) Completion/fracture/workover pits.

(i) Any reserve/circulation pit converted to a completion/fracture/ workover pit shall be closed within six (6) months after drilling operations cease. Upon request by the operator, a six (6) month extension shall be granted by the Conservation Division, after review by a field inspector to confirm the pit is in compliance with 165:10- 7-16 (c) and (d) requirements.

(ii) Any completion/fracture/workover pit not converted from a reserve/circulation pit shall be closed within 60 days after completion, fracture, or workover operations cease.

(E) Any emergency pit shall be emptied of its contents as soon as possible and closed within 60 days after the emergency situation ceases to exist.

(F) Any flare pit shall be closed within 30 days of abandonment of a lease.

(G) Any spill containment pit shall be closed within 30 days of abandonment of a lease.

(H) Any basic sediment pit shall be closed within 60 days after use of the pit ceases.

(I) Any recycling/reuse pit shall be closed within twelve months after operations cease.

(J) Any remediation pit shall be closed immediately after receipt of all contaminated materials.

(8) For failure to comply with any closure requirement, the operator may be fined up to \$1,000.00.

(9) Waiver of closure requirements. Exemption from closure and transfer of responsibility for any noncommercial pit to the surface owner or other party shall be requested by filing an application pursuant to OAC 165:5-7- 34. No approval shall be granted unless the analyses of the fluids show that the following ranges or concentrations are not exceeded:

(A) pH - 6.0-9.5 s.u.

(B) Chlorides - 3500 mg/l

(C) Total Dissolved Solids (TDS) or Total Soluble Salts (TSS)- 7000 mg/l

(D) Chromium (Total) - 10 mg/l

(E) Arsenic - 20 mg/l

165:10-7-20. Noncommercial disposal or enhanced recovery well pits used for temporary storage of saltwater

(a) Scope.
This Section shall apply to any production operation where a pit is used for temporary storage of saltwater, except (c)(7) of this Section, which shall apply to any noncommercial well, regardless of whether or not a pit is used.

(b) Construction requirements.

(1) Splash pad/apron. A splash pad/apron shall be constructed at the unloading area of any noncommercial disposal well or enhanced recovery pit to the design and dimensions necessary to contain and direct all materials unloaded into the pit, unless the pit is of such design that discharge directly into it presents no spill potential.

(2) Pit specifications. Except as provided by (4)(A) of this subsection, any noncommercial disposal or enhanced recovery well pit shall be constructed of concrete or steel or be lined with a geomembrane liner according to the following:

(A) Concrete pits must be steel reinforced and have a minimum wall thickness of six inches.

(B) Steel pits must have a minimum wall thickness of three-sixteenths (3/16) inch. A previously used steel pit may be installed, provided it is free of corrosion or other damage.

(C) Geomembrane liners must:

(i) Have a minimum thickness of 30 mils, be chemically compatible with the type of wastes to be contained, and have ultraviolet light protection.

(ii) Be placed over a specially prepared, smooth, compacted surface void of sharp changes in elevation, rocks, clods, organic debris, or other objects.

(iii) Be continuous (may include seams) and cover the bottom and interior sides of the pit entirely. The edges must be securely placed in a minimum twelve inch deep anchor trench around the perimeter of the pit.

(3) Certification of liner. The operator of any saltwater storage pit that is constructed with a geomembrane liner shall secure an affidavit signed by the installer, certifying that the liner meets minimum requirements and was installed in accordance with Commission rules. It shall be the operator's responsibility to maintain the affidavit and all supporting documentation pertaining to the liner, such as geomembrane liner specifications from the manufacturer, etc., and shall make them available to a representative of the Conservation Division upon request.

(c) Operation and maintenance requirements.

(1) Fencing. All noncommercial disposal or enhanced recovery well surface facilities that have a pit shall be completely enclosed by a minimum four strand barbed wire fence or equivalent protection as approved by the District Manager. Said fence shall be constructed in such a manner as to prevent livestock from entering the pit area.

(2) Site maintenance. The normal access surface of any well site that has a pit, including the access road(s), shall be maintained in a condition that will safely and easily allow access.

		<p>(3) Exclusion of runoff water. No pit shall be allowed to receive runoff water.</p> <p>(4) Freeboard. The fluid level in any concrete or steel noncommercial disposal or enhanced recovery well pit shall be maintained at all times at least six inches below the top of the pit wall. Any geomembrane lined pit shall have a minimum of 18 inches of freeboard at all times.</p> <p>(5) Temporary storage only. No pit shall be used as permanent storage for salt water.</p> <p>(d) Closure requirements.</p> <p>(1) Time limit. Within 180 days of the cessation of operations, all associated pits shall be emptied of all contents, and either removed or filled with soil. All monitor wells shall be plugged with bentonite or cement, unless exempt in writing by the District Manager or Manager of Field Operations. The site shall be revegetated within one (1) year.</p> <p>(2) Burial. If any concrete, steel, geomembrane, or other materials associated with the site are to be left on-site, they shall be buried under a minimum soil cover of three feet, pursuant to 165:10-3-17.</p> <p><i>Editors Note: The Oklahoma regulations contain similar language to that shown above governing commercial pits. For the purposes of brevity this language was omitted from this section of the report, but can be viewed at the regulations link shown at the beginning of the Oklahoma pages.</i></p>
<p>Exempt Waste Handling</p>	<p>Application for Disposal of Hydrostatic Test Water, Form 1014HD</p> <p>Application for Land Application, Form 1014S</p> <p>Application for Waste Oil or Drill Cuttings use by County Commissioners, Form 1014W</p> <p>Application for Waste Oil or Drill Cuttings use by Operators, Form 1014X</p>	<p>165:10-7-17. Surface discharge of fluids</p> <p>(a) Scope. This Section shall cover the surface discharge of hydrostatic test water, storm water from diked areas, and produced water from tanks or other containment vessels.</p> <p>(b) Discharge of hydrostatic test water.</p> <p>(1) Hydrostatic test water used in the testing of new pipeline segments, new casing, new tubing, new tanks and new vessels, may be discharged as necessary without a permit, notification to the Commission, or adherence to any other provisions of this Section, provided the following conditions are met:</p> <p>(A) Low chlorides. Chloride concentration does not exceed 1000 mg/l.</p> <p>(B) Sheen. There shall be no visible sheen or discoloration as a result of testing; however, certain dyes used to establish mechanical integrity may be approved.</p> <p>(C) Notice to District Office. Any discharges exceeding 1,000 barrels shall require notification to the appropriate District Office.</p> <p>(2) Hydrostatic test water used in the testing of existing tanks, vessel lines and transmission pipelines may be discharged upon notification to the Oklahoma Corporation Commission appropriate District Office on Form 1014HD provided that the following conditions are met:</p> <p>(A) Oil and grease. The oil and grease content of the discharge water shall not exceed 15 mg/l.</p> <p>(B) Sheen. There shall be no visible sheen or discoloration as a result of testing; however, certain dyes used to establish mechanical integrity may be approved.</p> <p>(C) Total Suspended Solids. The Total Suspended Solids shall not exceed 45 mg/l.</p> <p>(D) pH. The pH shall not be less than 6.5 nor exceed 9 s.u.</p> <p>(E) Foreign material. The discharge must be free from foreign material such as welding scrap tank sediments or sand blasting waste material.</p> <p>(F) Soil erosion. Standard soil erosion prevention procedures shall be required.</p> <p>(3) Hydrostatic test water that meets the requirements listed in (b) (2) of this Section may be discharged in volumes less than 15 bbls without filing Form 1014HD.</p> <p>(4) Hydrostatic test water that will be discharged to land and not directly into waters of the state and which may exceed the discharge parameters specified in (b) (2), shall be discharged only upon submission and approval by the Pollution Abatement Department of a plan for one-time discharge.</p> <p>(5) Hydrostatic test water not covered under (b)(1) from transmission lines and tanks that contain waste products that are listed as hazardous waste under the Resource Conservation and Recovery Act and have not been cleaned or pigged must meet the following discharge requirements in addition to (b)(2) of this Section:</p> <p>(A) The following parameters may not be exceeded: Benzene, .028 MG/L; toluene, .3 MG/L; phenol, .250 MG/L.</p> <p>(B) EPA analytical method 8020 shall be used unless approved by the Manager of Pollution Abatement.</p> <p>(c) Discharge of storm water. Storm water accumulations in any diked area built for the containment of tank battery spills may be discharged as necessary without a permit, notification to the Commission, or adherence to any other provisions of this Section, provided the following conditions are met:</p> <p>(1) No hydrocarbons. A visual inspection of the storm water is made and there is no sheen or other visible evidence of hydrocarbons being present.</p> <p>(2) Low chlorides. Chloride concentration does not exceed 1000 mg/l.</p> <p>(3) Conditions recorded. The operator records the conditions required by (1) and (2) in this subsection for each discharge, maintains those records for a period of three (3) years, and makes them available upon request to any representative of the Field Operations Department.</p> <p>(d) Discharge of produced water.</p> <p>(1) Site restrictions. Discharge of produced water shall only occur on land having an Exchangeable Sodium Percentage (ESP) no greater than 15, pursuant to (f)(3) of this Section, and all of the following characteristics as determined by the appropriate Soil Conservation District or by a qualified soils expert:</p> <p>(A) A maximum slope of five percent.</p> <p>(B) Depth to bedrock at least 20 inches.</p> <p>(C) Slight salinity (defined as electrical conductivity less than 4,000 micromhos/cm) in the topsoil or upper six inches of the soil.</p> <p>(D) A water table deeper than six feet from the soil surface, except a perched water table.</p> <p>(E) A minimum distance of 100 feet from any stream designated by Oklahoma Water Quality Standards (available for viewing at the Commission's Oklahoma City Office and District Offices) or any fresh water pond, lake, or wetland (designated by the National Wetlands Inventory Map Series, prepared by the U.S. Fish and Wildlife Service and available for viewing at the Commission's Oklahoma City Office).</p> <p>(2) Water quality limitations. A surface discharge permit shall not be issued if the produced water to be discharged exceeds either of the following concentrations:</p> <p>(A) Total Dissolved Solids (TDS) or Total Soluble Salts (TSS) - 5000 mg/l.</p> <p>(B) Oil and Grease - 1000 mg/l.</p>

(g) Application for permit.
 (1) Permit required.
 No person shall discharge produced water from a tank or other containment vessel without applying for and obtaining a permit issued under this subsection. An operator discharging produced water without a permit shall be fined \$1,000.00.

(j) Discharge from reserve pits.
 Water accumulation in any reserve pit used for the containment of air drilling cuttings or water-based drilling fluids may be discharged to land provided a permit is obtained from the Commission. Any operator discharging without a permit may be fined \$5,000.00.

165:10-7-18. Discharge to surface waters

Discharge of deleterious substances to streams or other surface waters is prohibited except by order of the Commission; unless permitted by a valid National Pollutant Discharge Elimination System (NPDES) Permit issued by U.S. EPA.

165:10-7-19. One-time land application of water-based fluids from earthen pits and tanks

(a) Authority for land application.
 No person shall land apply fluids except as provided by 165:10-9-2, 165:10-7-17, or this Section. Any operator failing to obtain a permit shall be fined \$2,000.

(b) Scope.
 This Section shall cover the land application of water-based drilling fluids and cuttings from earthen pits, tanks, or other containment structures; however, this Section shall not be exclusive of other authorities for land application listed in (a) of this Section. Any land application made under this Section shall be done from a single well to land that has not been previously permitted and used for this practice or similar practices for at least three (3) years.

(c) Site suitability restrictions.
 Land application shall only occur on land having all of the following characteristics below, as field verified by a soil scientist or other qualified person pre-approved by the Commission. Any variance from site suitability restrictions must be approved by the Oil and Gas Conservation Division (see (f)(2)(C) of this Section).

- (1) Maximum slope.
 - (A) Five percent for all application methods except spray irrigation;
 - (B) Eight percent for the spray irrigation method.
- (2) Depth to bedrock. Depth to bedrock must be at least 20 inches.
- (3) Soil texture. A soil profile (as defined by USDA soil surveys) containing at least twelve inches (may be cumulative) of one of the following soil textures between the surface and the water table, unless a documented impeding layer of shale is present: loam, silt loam, silt, sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, or clay.
- (4) Salinity. Slight salinity [defined as Electrical Conductivity (EC) less than 4,000 micromhos/cm] in the topsoil, or upper six inches of the soil, and a calculated Exchangeable Sodium Percentage (ESP) less than 10.0.
- (5) Depth to water table. No evidence of a seasonal water table within six(6) feet of the soil surface as verified by field observation and published data.
- (6) Distance from water bodies. A minimum distance of 100 feet from the land application site boundary to any perennial stream and 50 feet to any intermittent stream shown on the appropriate United States Geological Survey (U.S.G.S.) topographic map (available for viewing at the Commission's Oklahoma City Office and District Offices) and a minimum of 100 feet to any freshwater pond, lake, or wetland. [Designated by the National Wetlands Inventory Map Series, prepared by the U.S. Fish and Wildlife Service, available for viewing at the Commission's Oklahoma City Office (also, see (h)(6) of this Section)].
- (7) Site specific concerns. Void of slick spots within or adjacent to the land application area, where subsurface lateral movement of water is unlikely, or areas void of concentrated surface flow such as gullies or waterways.
- (8) Stockpiling of cuttings. Stockpiling of cuttings may be used during the handling and transportation of the cuttings both at the well location and the receiving site. At the well site the cuttings must be placed in a steel pit or the areas used for this practice must be lined and bermed if required by the District Office. A stockpile of cuttings at the receiving site must be located on the permitted area. The stockpile of cuttings, whether at the well location or the receiving site, must be closed within 30 days of cessation of drilling operations.

165:10-7-22. Permits for County Commissioners to apply waste oil, waste oil residue, or crude oil contaminated soil to roads

(a) Prohibition against application of waste oil, waste oil residue, or crude oil contaminated soil without permit.
 This Section prohibits any Board of County Commissioners from applying waste oil, waste oil residue, or crude oil contaminated soil to a street or road without a permit.

(b) Permit by District Office.
 A District Manager for the Conservation Division may issue to a Board of County Commissioners for a county within the district a permit to apply waste oil, waste oil residue, or crude oil contaminated soil to a street or road within the county.

165:10-7-23. Disposal of waste oil

(a) All waste oil and waste oil residue shall be disposed of in one of the following ways:

- (1) Transfer or sale to a reclaimer or transporter.
- (2) Transfer or sale to County Commissioners.
- (3) Administrative approval from the Conservation Division.

(b) All operators or owners of pits, tanks, commercial disposal operations, or reclaimers shall maintain books and records describing the disposition of all waste oil or waste oil residue. A copy of the run or load ticket will satisfy this requirement if the information required in (c) of this Section is contained therein.

	<p>(c) The following information shall be contained in said books and records and subject to audit and inspection by representatives of the Commission for a minimum period of three years:</p> <ol style="list-style-type: none"> (1) The amount of waste oil or waste oil residue removed. (2) The location of the waste oil or waste oil residue prior to disposal. (3) The destination of waste oil or waste oil residue as reported by transporter. (4) The name of the transporter of waste oil or waste oil residue. <p>165:10-7-26. One-time land application of contaminated soils and petroleum hydrocarbon based drill cuttings</p> <p>(a) Authority for land application. No person shall land apply soils or drill cuttings contaminated by salt or petroleum hydrocarbons except as provided by this Section. Any operator failing to obtain a permit shall be fined \$2,000.00.</p> <p>(b) Scope. This Section shall cover the land application of soils and drill cuttings contaminated by salt and/or petroleum hydrocarbons. Petroleum hydrocarbon-contaminated soils land applied under this Section shall meet the RCRA criteria for exempt or non-exempt/nonhazardous waste. [Reference 40 CFR Subtitle C and EPA publication EPA530-K-95-003 "Crude Oil and Natural Gas Exploration and Production Wastes: Exemption from RCRA Subtitle C Regulation"]. Hazardous waste as defined at 40 CFR 261.3 is regulated by the Oklahoma Department of Environmental Quality. Any land application made under this Section shall be done on a one-time basis to land that has not been previously used for this practice or similar practices.</p> <p>(c) Receiving site suitability restrictions. Land application shall only occur on land having all of the characteristics below, as field verified by a soil scientist or other qualified person pre-approved by the Commission: . Any variance from site suitability restrictions must be approved by the Oil and Gas Conservation Division (see (g)(2)(C) of this Section).</p> <ol style="list-style-type: none"> (1) Maximum slope. A maximum slope of five percent for all application methods. (2) Depth to bedrock. Depth to bedrock will be at least 40 inches if crude oil contaminated soils or petroleum hydrocarbon-based drill cuttings are to be applied; 20 inches if salt contaminated soils are to be applied. (3) Soil texture. A soil profile (as defined by USDA soil surveys) containing at least twelve inches (may be cumulative) of one of the following soil textures between the surface and the water table, unless a documented impeding layer of shale is present: loam, silt loam, silt, sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, or clay. (4) Salinity. Slight salinity [defined as Electrical Conductivity (EC) less than 4,000 micromhos/cm] in the topsoil, or upper six inches of the soil, and a calculated Exchangeable Sodium Percentage (ESP) less than 10.0. (5) Depth to water table. No evidence of a seasonal water table within six (6) feet of the soil surface as verified by field observation and published data. (6) Distance from water bodies. A minimum distance of 100 feet from the land application site boundary to any perennial stream and 50 feet to any intermittent stream found on the appropriate United States Geological Survey (U.S.G.S.) topographic map (available for viewing at the Commission's Oklahoma City Office and District Offices); and a minimum of 100 feet to any freshwater pond, lake, or wetland designated by the National Wetlands Inventory Map Series, prepared by the U.S. Fish and Wildlife Service (available for viewing at the Commission's Oklahoma City Office). Also, see (h)(6) of this Section. (7) Site specific concerns. Void of slick spots within or adjacent to the land application area, where subsurface lateral movement of water is unlikely, or areas void of concentrated surface flow such as gullies or waterways. <p><i>Editors Note: The Oklahoma regulations contain substantially more language governing Exempt Waste Handling than that shown above. For the purposes of brevity this language was omitted from this section of the report, but can be viewed at the regulations link shown at the beginning of the Oklahoma pages.</i></p>
Spills	<p>65:10-7-5. Prohibition of pollution</p> <p>(c) Reporting nonpermitted discharges (spills, etc.).</p> <ol style="list-style-type: none"> (1) All operators, contractors, drillers, service companies, pit operators, transporters, pipeline companies, or other persons conducting operations regulated by the Commission shall: <ol style="list-style-type: none"> (A) Report verbally, with respect to their operations, to the Commission District Office or Field Inspector within 24 hours of discovery: <ol style="list-style-type: none"> (i) Any non-permitted discharge of deleterious substances of ten bbls. or more (single event) to the surface. (ii) Any discharge of a deleterious substance, regardless of quantity, to the waters of the State. (B) File a written or oral report with the District Office within ten working days specifying the following: <ol style="list-style-type: none"> (i) Name of party reporting, firm name, and telephone number. (ii) Legal location. (iii) Lease or facility name. (iv) Operator. (v) Circumstances surrounding discharge and whether discharge was to water or soil. (vi) Date of occurrence. (vii) Volumes discharged. (viii) Type of materials discharged. (ix) Method of cleanup (if any) undertaken and completed. (x) Volumes recovered. (C) Maintain adequate records of each non-permitted discharge reflecting the information, time, and manner of reporting pursuant to this Section for a minimum of three (3) years. Such documents shall be produced upon demand by an authorized representative of the Commission. (D) Report hazardous substances that meet reportable quantities under Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 C.F.R. Part 302) in the format as required under this subsection.

Pennsylvania		
Topic	Associated Forms	Regulations: http://www.dep.state.pa.us/dep/deputate/minres/oilgas/Laws%20&%20Regulations.htm
Permitting	Permit Application for Drilling or Altering a Well, Form 5500-PM-OG0001	<p>Excerpted Text by Topic</p> <p>Pennsylvania Act 223 Oil and Gas Sec. 601.201. Well permits</p> <p>(a) No person shall drill a well or alter any existing well, except for alterations which satisfy the requirements of subsection (j), without having first obtained a well permit pursuant to subsections (b), (c), (d) and (e). A copy of the permit shall be kept at the well site during drilling or alteration of the well. However, no person shall be required to obtain a permit to redrill a nonproducing well, if:</p> <p>(1) the redrilling has been evaluated and approved as part of an order from the department authorizing the cleaning out and plugging or replugging of a nonproducing well, pursuant to section 13(c) of the act of December 18, 1984 (P.L. 1069, No. 214), known as the Coal and Gas Resource Coordination Act; and</p> <p>(2) the redrilling is incidental to the plugging or replugging operation and the well subsequently is plugged within 15 days of redrilling.</p> <p>(i) Well permits issued for drilling of wells covered by this act shall expire one year after issuance unless operations for drilling of the well are commenced within such period and pursued with due diligence or unless the permit is renewed in accordance with regulations of the department. If drilling is commenced during the one-year period, the well permit shall remain in force until the well is plugged in accordance with section 210 or the permit is revoked. Any drilling permit issued prior to the effective date of this act for a well which is an operating well on said date shall remain in force as a well permit until the well is plugged in accordance with section 210.</p> <p>Sec. 601.205. Well location restrictions</p> <p>(a) Wells may not be drilled within 200 feet measured horizontally from any existing building or existing water well without the written consent of the owner thereof. Where the distance restriction would deprive the owner of the oil and gas rights of the right to produce or share in the oil or gas underlying said surface tract, the well operator may be granted a variance from said distance restriction upon submission of a plan which shall identify the additional measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include such additional terms and conditions as the department shall require to insure the safety and protection of affected persons and property. The provisions may include insurance, bonding and indemnification, as well as technical requirements.</p> <p>(b) No well site may be prepared or well drilled within 100 feet measured horizontally from any stream, spring or body of water as identified on the most current 7 1/2 minute topographic quadrangle map of the United States Geological Survey or within 100 feet of any wetlands greater than one acre in size. The department may waive such distance restrictions upon submission of a plan which shall identify the additional measures, facilities or practices to be employed during well site construction, drilling and operations. Such waiver, if granted, shall impose such permit conditions as are necessary to protect the waters of the Commonwealth.</p> <p>25 Pennsylvania Code- Oil and Gas Regulations § 78.11. Permit requirements.</p> <p>(a) No person may drill or alter a well unless that person has first obtained a permit from the Department.</p> <p style="text-align: center;"><u>§ 78.15. Application requirements.</u></p> <p>An application for a well permit shall be submitted on forms furnished by the Department and contain the information required by the Department to evaluate the application.</p>
Well Treatment, Stimulation and Fracturing	Well Record and Completion Report, Form 5500-FM-OG0004	No specific regulation located
Well Construction	Well Record and Completion Report, Form 5500-FM-OG0004 Proposed Alternate method of Casing, Plugging,	<p style="text-align: right;"><u>§ 79.12. Waste prevention.</u></p> <p>(a) Suitable and safe surface casing shall be used in wells to prevent waste.</p> <p>(b) Blowout equipment shall be in good working condition at all times and sufficient to prevent waste.</p> <p>(c) The operator shall run and cement sufficient intermediate or production casing, or both, to prevent waste prior to closing or "shutting in" the well at the surface.</p> <p>(d) The production casing shall be cemented in place with a sufficient amount of cement to fill the calculated annular space to a point at least 500 feet above the casing shoe and at least 200 feet above the uppermost perforations.</p> <p>(e) The cement shall be allowed to set to a minimum compression strength of 500 pounds per square inch, using generally recognized industry engineering data for the type of cement used, prior to resumption of drilling. The waiting time on cement shall in no case be less than 8 hours.</p> <p style="text-align: right;"><u>§ 78.73. General provision for well construction and operation.</u></p>

**Venting or
Equipping,
Form 5500-
PM-OG0024**

- (a) The operator shall prevent gas and other fluids from lower formations from entering fresh groundwater.
- (b) After a well has been completed, recompleted, reconditioned or altered the operator shall prevent shut-in pressure or producing back pressure at the surface casing seat or coal protective casing seat from exceeding the hydrostatic pressure of the surrounding fresh groundwater system in accordance with the following formula. The maximum allowable shut-in pressure or producing back pressure to be exerted at the surface casing seat or coal protective casing seat may not exceed the hydrostatic pressure calculated as follows: Maximum pressure = (0.433 psi) multiplied by (casing length in feet).
- (c) After a well has been completed, recompleted, reconditioned or altered, if the shut-in pressure or producing back pressure exceeds the hydrostatic pressure at the surface casing seat or coal protective casing seat as calculated in subsection (b), the operator shall take action to prevent the migration of gas and other fluids from lower formations into fresh groundwater. To meet this standard the operator may cement or install on a packer sufficient intermediate or production casing or take other actions approved by the Department. This section does not apply during testing for mechanical integrity in accordance with State or Federal requirements.

§ 78.83. Surface and coal protective casing and cementing procedures.

- (a) If the well is to be equipped with threaded and coupled casing, the operator shall drill a hole so that the diameter is at least 1 inch greater than the outside diameter of the casing collar to be installed. If the well is to be equipped with plain-end welded casing, the operator shall drill a hole so that the diameter is at least 1 inch greater than the outside diameter of the casing tube.
- (b) Except as provided in subsection (c), the operator shall drill to approximately 50 feet below the deepest fresh groundwater or at least 50 feet into consolidated rock, whichever is deeper, and immediately set and permanently cement a string of surface casing to that depth.
- (c) If no fresh groundwater is being utilized as a source of drinking water within a 1,000-foot radius of the well, the operator may set and permanently cement a single string of surface casing through all water zones, including fresh, brackish and salt water zones. Prior to penetrating zones known to contain, or likely containing, oil or gas, the operator shall install and permanently cement the string of casing in a manner that segregates the various waters.
- (d) The operator shall permanently cement the surface casing by placing the cement in the casing and displacing it into the annular space between the wall of the hole and the outside of the casing.
- (e) Where potential oil or gas zones are anticipated to be found at depths within 50 feet below the deepest fresh groundwater, the operator shall set and permanently cement surface casing prior to drilling into a stratum known to contain, or likely containing, oil or gas.
- (f) If additional fresh groundwater is encountered in drilling below the permanently cemented surface casing, the operator shall protect the additional fresh groundwater by installing and cementing a subsequent string of casing or other procedures approved by the Department to completely isolate and protect fresh groundwater. The string of casing may also penetrate zones bearing salty or brackish water with cement in the annular space being used to segregate the various zones. Sufficient cement shall be used to cement the casing at least 20 feet into the permanently cemented casing.
- (g) The operator shall set and cement a coal protective string of casing through workable coal seams. The base of the coal protective casing shall be at least 30 feet below the lowest workable coal seam.
- (h) When a well is drilled through a coal seam at a location where the coal has been removed, the operator shall drill to a depth of at least 30 feet but no more than 50 feet deeper than the bottom of the coal seam. The operator shall set and cement a coal protection string of casing to this depth. The operator shall equip the casing with a cement basket or other similar device above and as close to the top of the coal seam as practical. The bottom of the casing shall be equipped with an appropriate device designed to prevent deformation of the bottom of the casing. The interval from the bottom of the casing to the bottom of the coal seam shall be filled with cement either by the balance method or by the displacement method. Cement shall be placed on top of the basket between the wall of the hole and the outside of the casing by pumping from the surface. If the operator penetrates more than one coal seam from which the coal has been removed, the operator shall protect each seam with a separate string of casing that is set and cemented or with a single string of casing which is stage cemented so that each coal seam is protected as described in this subsection. The operator shall cement the well to isolate workable coal seams from each other.
- (i) If the operator sets and cements casing under subsection (g) or (h) and subsequently encounters additional fresh groundwater zones below the deepest cemented casing string installed, the operator shall protect the fresh groundwater by installing and cementing another string of casing or other method approved by the Department. Sufficient cement shall be used to cement the casing at least 20 feet into the surface or coal protective casing. The additional casing string may also penetrate zones bearing brackish or salt water, but shall be run and cemented prior to penetrating a zone known to or likely to contain oil or gas.
- (j) If it is anticipated that cement used to permanently cement the surface casing can not be circulated to the surface a cement basket may be installed immediately above the depth of the last circulation zone. The casing shall be permanently cemented by the displacement method. Additional cement may be added above the cement basket, if necessary, by pumping through a pour string from the surface to fill the annular space.

§ 78.84. Casing standards.

- (a) The operator shall install casing that can withstand the effects of tension, and prevent burst and collapse during its installation, cementing and subsequent drilling and producing operations.
- (b) The operator shall equip the casing string with appropriate equipment to center the casing through the hole in fresh groundwater zones. This equipment is not required when existing hole conditions such as caving or crookedness might cause loss of the well or result in a defective cement job.

§ 78.85. Cement standards.

- (a) The operator shall use cement that will resist degradation by chemical and physical conditions in the well.
- (b) The operator shall permit the cement to set to a minimum compressive strength of 350 pounds per square inch (psi) in accordance with the American Petroleum Institute's API Specification 10. The operator shall permit the cement to set for a minimum period of 8 hours prior to the resumption of actual drilling.
- (c) Where special cement or additives are used, the operator may request approval from the Department to reduce the cement setting time specified in subsection (b).

**Pennsylvania Act 223 Oil and Gas
Sec. 601.207. Protection of fresh groundwater; casing requirements**

		<p>(a) To aid in the protection of fresh groundwater, the well operator shall control and dispose of brines produced from the drilling, alteration or operation of an oil or gas well in a manner consistent with the act of June 22, 1937 (P.L. 1987, No. 394), known as The Clean Streams Law, or any rule or regulation promulgated thereunder.</p> <p>(b) To prevent the migration of gas or fluids into sources of fresh groundwater and to prevent pollution or diminution of fresh groundwaters, there shall be run and permanently cemented a string or strings of casing in each well drilled through the fresh water bearing strata to a depth and in a manner prescribed by regulation by the department.</p> <p>(c) When a well is drilled at a location where the coal has been removed from one or more coal seams, the well shall be drilled and cased to prevent the migration of gas or fluids into the seam from which the coal has been removed, in a manner prescribed by regulation of the department. The department and the coal operator, owner or lessee shall be given at least 72 hours' notice prior to commencement of the work protecting the mine.</p> <p>(d) When a well is drilled at a location where the coal seam has not been removed, the well shall be drilled to such a depth and of size as will permit the placing of casing, packers in, and vents on, the hole at such points and in such a manner prescribed by the department by regulation as will exclude all gas or fluids from the coal seam, except such as may be found naturally in the coal seam itself and will enable the monitoring of the integrity of the production casing.</p>
<p>Temporary Abandonment/ Shut- in Status</p>		<p>Sec. 601.204. Inactive status</p> <p>(a) Upon application, the department shall grant inactive status for a period of five years for any permitted or registered well provided the following requirements are met:</p> <p>(1) the condition of the well is sufficient to prevent damage to the producing zone or contamination of fresh water or other natural resources or surface leakage of any substance;</p> <p>(2) the condition of the well is sufficient to stop the vertical flow of fluids or gas within the well bore and is adequate to protect freshwater aquifers, unless the department determines the well poses a threat to the health and safety of persons or property or to the environment;</p> <p>(3) the operator anticipates future use of the well for primary or enhanced recovery, future gas storage, or the operator anticipates the construction of a pipeline, for approved disposal or other appropriate uses related to oil and gas well production; and</p> <p>(4) the applicant satisfies the bonding requirements of sections 203 and 215, except that the department may require additional financial security for any well on which an alternative fee is being paid in lieu of bonding under section 215(d).</p> <p>(b) The owner or operator of any well granted inactive status shall be responsible for monitoring the mechanical integrity of such well to insure that the requirements of subsection (a)(1) and (2) are met and shall report the same on an annual basis to the department in a manner and form as the department shall prescribe by regulation.</p> <p>(d) Any well granted inactive status pursuant to subsection (a) shall be plugged in accordance with section 210 or returned to active status within five years of the date inactive status was granted, unless the owner or operator applies for an extension of inactive status which may be granted on a year-to-year basis if the department determines that the owner or operator has demonstrated his ability to continue to meet the requirements of this section and the owner or operator certifies that the well will be of future use within a reasonable period of time. An owner or operator who has been granted inactive status for a well which is returned to active status prior to expiration of the five-year period set forth in subsection (a) shall notify the department that the well has been returned to active status and shall not be permitted to apply for another automatic five-year period of inactive status for such well. The owner or operator may make application to return the well to inactive status, and such application may be approved on a year-to-year basis if the department determines that the owner or operator has demonstrated an ability to continue to meet the requirements of this section and the owner or operator certifies that the well will be of future use within a reasonable period of time. The department shall approve or deny an application to extend a period of inactive status or to return a well to inactive status within 60 days of receipt of such application, and such application shall not be unreasonably denied. If the department has not completed its review of the application within 60 days, the inactive status shall continue until the department has made a determination on the request. If the department denies an application to extend the period of inactive status or to return a well to inactive status, a well owner or operator aggrieved thereby shall have the right to appeal such denial to the Environmental Hearing Board within 30 days of receipt of such denial. Upon cause shown by a well owner or operator, the board may grant a supersedeas pursuant to section 4 of the act of July 13, 1988 (P.L. 530, No. 94), known as the Environmental Hearing Board Act, in order that the well in question may retain inactive status during the period of appeal.</p> <p>(e) The department shall have the right to revoke inactive status and order the immediate plugging of a well if it is in violation of this act or rules or regulations promulgated thereunder or if the owner or operator demonstrates inability to perform his obligations under this act or becomes financially insolvent or upon receipt by the department of notice of bankruptcy proceedings by the permittee.</p>
<p>Well Plugging</p>	<p>Notice of Intention by Operator to Plug Wells, Form 5500-FM-OG0005</p> <p>Certificate of Well Plugging, Form 5500-FM-OG0006</p> <p>Proposed</p>	<p>25 Pennsylvania Code- Oil and Gas Regulations</p> <p style="text-align: center;"><u>§ 78.91. General provisions.</u></p> <p>(a) Upon abandoning a well, the owner or operator shall plug the well under § § 78.92—78.98 or an approved alternate method under section 211 of the act (58 P. S. § 601.211) to stop the vertical flow of fluids or gas within the well bore unless one of the following applies:</p> <p>(1) The Department has granted inactive status under § § 78.101—78.105 (relating to inactive status).</p> <p>(2) The well is part of a plugging schedule that has been approved by the Department and the operator is complying with that schedule, and the schedule takes into account potential harm that the well poses to the environment or public health and safety.</p> <p>(3) The Department has approved the identification of the well as an orphan well under section 203 of the act (58 P. S. § 601.203), and the Department has not determined a prior owner or operator received economic benefit after April 18, 1979, from this well other than economic benefit derived only as a landowner or from a royalty interest.</p> <p>(b) The operator shall plug a well where a radioactive logging source has been lost under § § 78.92—78.98 and 78.111.</p> <p>(c) When a well is being plugged from the attainable bottom, the operator shall install a 50-foot plug of cement at the attainable bottom and plug the remainder of the well under § § 78.92—78.98.</p> <p>(d) If the production casing cannot be retrieved, the operator shall plug strata bearing or having borne oil, gas or water by perforating the casing and squeezing</p>

Alternate method of Casing, Plugging, Venting or Equipping, Form 5500-PM-OG0024

cement into the annulus or other method approved by the Department. The maximum distance the stub of the uncemented production casing may extend is 100 feet below the surface casing seat or coal protective casing seat, whichever is deeper. The uncemented portion of the casing left in the well above the total depth or attainable bottom may not extend through a formation bearing or having borne oil, gas or water or extend to a point where it interferes with subsequent plugging requirements of § 78.92(a)(2) and 78.93(a)(2) and (b)(4) (relating to wells in coal areas—surface or coal protective casing is cemented; and wells in coal areas—surface or coal protective casing anchored with a packer or cement). The remainder of the well shall be plugged under § 78.92—78.98.

(e) When plugging a well, an operator shall insure that no gases are present in the well in an amount that could interfere with cementing the well.

(f) When plugging a well with a casing string cemented through a gas storage reservoir or reservoir protective area, an operator shall use bridge plugs immediately above and below the gas storage reservoir unless an alternate plugging plan has been approved by the Department.

§ 78.94. Wells in noncoal areas—surface casing is not cemented or not present.

- (a) The owner or operator shall plug a noncoal well, where the surface casing and production casing are not cemented, or is not present as follows:
- (1) The retrievable production casing shall be removed. The well shall be filled with nonporous material from the total depth or attainable bottom of the well to a point 20 feet above the top of the lowest stratum bearing or having borne oil, gas or water. At that point there shall be placed a plug of cement, which shall extend at least 50 feet above that point. Between this sealing plug and a point 20 feet above the next higher stratum bearing or having borne oil, gas or water, the hole shall be filled with nonporous material and at that point there shall be placed another 50-foot plug of cement. The hole shall be filled and plugged, with reference to each of the strata bearing or having borne oil, gas or water. The operator may treat multiple strata as one stratum and plug as described in this paragraph with a single column of cement or other materials as approved by the Department. When the production casing is not retrievable, the operator shall plug this portion of the well under § 78.91(d) (relating to general provisions).
 - (2) After plugging strata bearing or having borne oil, gas or water, the well shall be filled with nonporous material to approximately 100 feet below the surface casing seat and there shall be placed another plug of cement or other equally nonporous material approved by the Department extending at least 50 feet above that point.
 - (3) After setting the uppermost 50-foot plug, the retrievable surface casing shall be removed and the hole shall be filled from the top of the 50-foot plug to the surface with nonporous material other than gel. If the surface casing is not retrievable, the hole shall be filled from the top of the 50-foot plug to the surface with a noncementing material.
- (b) The owner or operator shall plug a well, where the surface casing is not cemented or not present, and the production casing is cemented as follows:
- (1) If the total depth or attainable bottom is deeper than the cemented production casing seat, the operator shall plug that portion of the well under subsection (a)(1).
 - (2) Cement plugs shall be set in the cemented portion of the production casing so that each plug extends from at least 50 feet below each stratum bearing or having borne oil, gas or water, to a point at least 100 feet above each stratum. A Department approved mechanical plug may be used as a substitute for the plug of cement. The mechanical plug shall be set 20 feet above each stratum having borne oil, gas or water. The operator may treat multiple strata as one stratum and plug as described in this subsection with a single column of cement or other material approved by the Department.
 - (3) Following the plugging of the cemented portion of the production casing, the uncemented portion of the production string shall be separated from the cemented portion and retrieved. The maximum distance the stub of the uncemented portion of the production casing may extend is 100 feet below the surface casing. In no case may the uncemented portion of the production casing left in the hole extend through stratum bearing or having borne oil, gas or water. Other stratum bearing or having borne oil, gas or water shall be plugged by filling the hole with nonporous material to 20 feet above the stratum and setting a 50-foot plug of cement. When the uncemented portion of the production casing is not retrievable, the operator shall plug that portion of the well under § 78.91(d).
 - (4) The remainder of the well shall be plugged under subsection (a)(2) and (3).

§ 78.95. Wells in noncoal areas—surface casing is cemented.

- (a) The owner or operator shall plug a well, where the surface casing is cemented and the production casing is not cemented or not present, as follows:
- 1) The retrievable production casing shall be removed and the well shall be filled with nonporous material from the total depth or attainable bottom of the well to a point 20 feet above the top of the lowest stratum bearing or having borne oil, gas or water. At this point there shall be placed a plug of cement, which shall extend at least 50 feet above that point. Between this sealing plug and a point 20 feet above the next higher stratum bearing or having borne oil, gas or water, the hole shall be filled with nonporous material and at that point there shall be placed another 50-foot plug of cement. The hole shall be filled and plugged, with reference to each of the strata bearing or having borne oil, gas or water. The operator may treat multiple strata as one stratum and plug as described in this subsection with a single column of cement or other materials as approved by the Department. When the production casing is not retrievable, the operator shall plug this portion of the well under § 78.91(d) (relating to general provisions).
 - (2) After plugging all strata bearing or having borne oil, gas or water, the well shall be filled with nonporous material to approximately 100 feet below the surface casing seat. Another plug of cement, or other equally nonporous material approved by the Department, shall be placed extending at least 50 feet above that point.
 - (3) After setting the 50-foot plug, the hole shall be filled from the top of the 50-foot plug to the surface with a noncementing material or the operator shall set a 100-foot cement plug which extends 50-feet into the surface casing and fill the hole to the surface with noncementing material.
- (b) The owner or operator shall plug a noncoal well, where the surface casing and production casing are cemented, as follows:
- (1) If the total depth or attainable bottom is deeper than the cemented production casing seat, the operator shall plug that portion of the well under subsection (a)(1).
 - (2) Cement plugs shall be set in the cemented portion of the production casing so that each plug extends from at least 50 feet below each stratum bearing or having borne oil, gas or water, to a point at least 100 feet above the stratum. A Department approved mechanical plug may be used as a substitute for the plug of cement. The mechanical plug shall be set 20 feet above each stratum having borne oil, gas or water. The operator may treat multiple strata as one stratum and plug as described in this subsection with a single column of cement or other materials approved by the Department.
 - (3) Following the plugging of the cemented portion of the production casing, the uncemented portion of the production string shall be separated from the cemented portion and retrieved. The maximum distance the stub of the uncemented portion of the production casing may extend is 100 feet below the

		<p>surface casing. In no case may the uncemented portion of the production casing left in the hole extend through stratum bearing or having borne oil, gas or water. Other stratum bearing or having borne oil, gas or water shall be plugged by filling the hole with nonporous material to 20 feet above the stratum and setting a 50-foot plug of cement. When the uncemented portion of the production casing is not retrievable, the operator shall plug that portion of the well under § 78.91(d).</p> <p>(4) The remainder of the well shall be plugged under subsection (a)(2) and (3).</p>
<p>Tanks</p>		<p style="text-align: center;"><u>25 Pennsylvania Code- Oil and Gas Regulations</u> <u>§ 79.15. Fire prevention.</u></p> <p>(b) When it is deemed necessary by the Department to protect life, health or property, the Department may require any oil storage tank to have a method of secondary containment which meets the requirements of § 78.64 (relating to containment around oil tanks).</p> <p style="text-align: center;"><u>§ 78.64. Containment around oil tanks.</u></p> <p>(a) If an owner or operator uses a tank with a capacity of at least 660 gallons or tanks with a combined capacity of at least 1,320 gallons to contain oil produced from a well, the owner or operator shall construct and maintain a dike or other method of secondary containment which satisfies the requirements under 40 CFR 112 (relating to oil pollution prevention) around the tank or tanks which will prevent the tank contents from entering waters of this Commonwealth.</p> <p>(b) The containment area provided by the dikes or other method of secondary containment shall have containment capacity sufficient to hold the volume of the largest single tank, plus a reasonable allowance for precipitation based on local weather conditions and facility operation.</p> <p>(c) Prior to drainage of accumulated precipitation from containment structures, the containment area shall be inspected and accumulations of oil picked up and returned to the tank or disposed of in accordance with approved methods.</p> <p>(d) After complying with subsection (c), drainage of containment facilities is acceptable if:</p> <p>(1) The accumulation in the containment facility consists of only precipitation directly to the containment facility and drainage will not cause a harmful discharge or result in a sheen.</p> <p>(2) The containment drain valve is opened and resealed, or other drainage procedure, as applicable, is conducted under responsible supervision.</p> <p><i>Editors Note: See Pits section below for additional tank regulations.</i></p>
<p>Pits</p>		<p style="text-align: center;"><u>§ 78.56. Pits and tanks for temporary containment.</u></p> <p>(a) Except as provided in §§ 78.60(b) and 78.61(b) (relating to discharge requirements; and disposal of drill cuttings), the operator shall contain polluttional substances and wastes from the drilling, altering, completing, recompleting, servicing and plugging the well, including brines, drill cuttings, drilling muds, oils, stimulation fluids, well treatment and servicing fluids, plugging and drilling fluids other than gases in a pit, tank or series of pits and tanks. The operator shall install or construct and maintain the pit, tank or series of pits and tanks in accordance with the following requirements:</p> <p>(1) The pit, tank or series of pits and tanks shall be constructed and maintained with sufficient capacity to contain all polluttional substances and wastes which are used or produced during drilling, altering, completing and plugging the well.</p> <p>(2) A pit shall be designed, constructed and maintained so that at least 2 feet of freeboard remain at all times. If open tanks are used, the tanks shall be maintained so that at least 2 feet of freeboard remain at all times unless the tank is provided with an overflow system to a standby tank or pit with sufficient volume to contain all excess fluid or waste. If an open standby tank is used, it shall be maintained with 2 feet of freeboard. If this subsection is violated, the operator immediately shall take the necessary measures to ensure the structural stability of the pit or tank, prevent spills and restore the 2 feet of freeboard.</p> <p>(3) Pits and tanks shall be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties.</p> <p>(4) A pit or tank that contains drill cuttings from below the casing seat, polluttional substances, wastes or fluids other than tophole water, fresh water and uncontaminated drill cuttings shall be impermeable and comply with the following:</p> <p>(i) The pits shall be constructed with a synthetic flexible liner with a coefficient of permeability of no greater than 1 x 10⁻⁷ cm/sec and with sufficient strength and thickness to maintain the integrity of the liner. The liner shall be designed, constructed and maintained so that the physical and chemical characteristics of the liner are not adversely affected by the waste and the liner is resistant to physical, chemical and other failure during transportation, handling, installation and use. Adjoining sections of liners shall be sealed together to prevent leakage in accordance with the manufacturer's directions. If the operator seeks to use a liner material other than a synthetic flexible liner, the operator shall submit a plan identifying the type and thickness of the material and the installation procedures to be used, and shall obtain approval of the plan by the Department before proceeding.</p> <p>(ii) The pit shall be constructed so that the liner subbase is smooth, uniform and free from debris, rock and other material that may puncture, tear, cut or otherwise cause the liner to fail. The liner subbase and subgrade shall be capable of bearing the weight of the material above the liner without settling that may affect the integrity of the liner. If the pit bottom or sides consist of rock, shale or other materials that may cause the liner to fail, a subbase of at least 6 inches of soil, sand or smooth gravel, or sufficient amount of an equivalent material, shall be installed over the area as the subbase for the liner.</p> <p>(iii) The bottom of the pit shall be at least 20 inches above the seasonal high groundwater table, unless the operator obtains approval under subsection (b) for a pit that exists only during dry times of the year and is located above groundwater.</p> <p>(iv) If a liner becomes torn or otherwise loses its integrity, the pit shall be managed to prevent the pit contents from leaking from the pit. If repair of the liner or construction of another temporary pit is not practical or possible, the pit contents shall be removed and disposed at an approved waste disposal facility or disposed on the well site in accordance with § 78.61, § 78.62 or § 78.63 (relating to disposal of residual waste—pits; and disposal of residual waste—land application).</p> <p>(v) If the liner drops below the 2 feet of freeboard, the pit shall be managed to prevent the pit contents from leaking from the pit and the 2 feet of lined freeboard shall be restored.</p> <p>(b) The operator may request to use practices other than those specified in subsection (a) which provide equivalent or superior protection by submitting a request to the Department for approval. The request shall be made on forms provided by the Department.</p> <p>(c) Disposal of uncontaminated drill cuttings in a pit or by land application shall comply with § 78.61. A pit used for the disposal of residual waste, including</p>

		<p>contaminated drill cuttings, shall comply with § 78.62. Disposal of residual waste, including contaminated drill cuttings, by land application shall comply with § 78.63.</p> <p>(d) Unless a permit under The Clean Streams Law (35 P. S. § § 691.1—691.1001) or approval under § 78.57 or § 78.58 (relating to control, storage and disposal of production fluids; and existing pits used for the control, storage and disposal of production fluids) has been obtained for the pit, the owner or operator shall remove or fill the pit within 9 months after completion of drilling, or in accordance with the extension granted by the Department under section 206(g) of the act (58 P. S. § 601.206(g)). Pits used during servicing, plugging and recompleting the well shall be removed or filled within 90 days of construction.</p> <p style="text-align: center;"><u>§ 91.35. Wastewater impoundments.</u></p> <p>(a) Except as otherwise provided under subsections (c) and (d), a person may not operate, maintain or use or permit the operation, maintenance or use of a wastewater impoundment for the production, processing, storage, treatment or disposal of pollutants unless the wastewater impoundment is structurally sound, impermeable, protected from unauthorized acts of third parties, and is maintained so that a freeboard of at least 2 feet remains at all times. The person owning, operating or possessing a wastewater impoundment has the burden of satisfying the Department that the wastewater impoundment complies with these requirements.</p> <p>(b) A person owning, operating or in possession of an existing wastewater impoundment containing pollutants, or intending to construct or use a wastewater impoundment, shall promptly submit to the Department a report or plan setting forth the location, size, construction and contents of the wastewater impoundment and other information as the Department may require.</p> <p>(c) Except when a wastewater impoundment is already approved under an existing permit from the Department, a permit from the Department is required approving the location, construction, use, operation and maintenance of a wastewater impoundment subject to subsection (a) in the following cases:</p> <ol style="list-style-type: none"> (1) If a variance is requested from the requirements in subsection (a). (2) If the capacity of one wastewater impoundment or of two or more interconnected wastewater impoundments exceeds 250,000 gallons. (3) If the total capacity of polluting substances contained in wastewater impoundments on one tract or related tracts of land exceeds 500,000 gallons. (4) If the Department determines that a permit is necessary for effective regulation to insure that pollution will not result from the use, operation or maintenance of the wastewater impoundment.
<p>Exempt Waste Handling</p>	<p>Annual Well and Waste Production Report, Form 5500-FM-OG0049</p>	<p style="text-align: center;"><u>§ 78.55. Control and disposal plan.</u></p> <p>(a) Prior to generation of waste, the well operator shall prepare and implement a plan under § 91.34 (relating to activities utilizing pollutants) for the control and disposal of fluids, residual waste and drill cuttings, including tophole water, brines, drilling fluids, additives, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids and drill cuttings from the drilling, alteration, production, plugging or other activity associated with oil and gas wells.</p> <p>(b) The plan shall identify the control and disposal methods and practices utilized by the well operator and be consistent with the act, The Clean Streams Law (35 P. S. § § 691.1—691.1001), the Solid Waste Management Act (35 P. S. § § 6018.101—6018.1003) and § § 78.54, 78.56—78.58 and 78.60—78.63.</p> <p style="text-align: center;"><u>§ 78.57. Control, storage and disposal of production fluids.</u></p> <p>(a) Unless a permit has been obtained under § 78.60(a) (relating to discharge requirements), the operator shall collect the brine and other fluids produced during operation, service and plugging of the well in a tank, pit or a series of pits or tanks, or other device approved by the Department for subsequent disposal or reuse. Except as allowed in this subchapter or otherwise approved by the Department, the operator may not discharge the brine and other fluids on or into the ground or into the waters of this Commonwealth.</p> <p>(b) Except as provided in § 78.56 (relating to pits and tanks for temporary containment), the operator may not use a pit for the control, handling or storage of brine and other fluids produced during operation, service or plugging of a well unless the pit is authorized by a permit under The Clean Streams Law (35 P. S. § § 691.1—691.1001) or approval to operate the pit as an impoundment under The Clean Streams Law is obtained from the Department under subsection (c).</p> <p>(c) The operator may apply for approval from the Department to operate a pit as an impoundment under The Clean Streams Law, as indicated by the Department's issuance of a pit approval number in accordance with this section. No pit will be eligible for approval under this subsection unless the capacity of any one pit or of any two or more interconnected pits is less than 250,000 gallons, or the total capacity contained in pits on one tract or related tracts of land is less than 500,000 gallons. Compliance with this subsection does not relieve the operator from the obligation to comply with section 308 of The Clean Streams Law (35 P. S. § 691.308) and the requirements for obtaining a permit for the erection, construction and operation of treatment works promulgated under that section.</p> <p style="text-align: center;"><u>§ 78.60. Discharge requirements.</u></p> <p>(a) The owner and operator may not cause or allow a discharge of a substance to the waters of this Commonwealth unless the discharge complies with this subchapter and Chapters 91—93, 95 and 102, The Clean Streams Law (35 P. S. § § 691.1—691.1001) and the act.</p> <p>(b) The owner and operator may not discharge tophole water or water in a pit as a result of precipitation by land application unless the discharge is in accordance with the following requirements:</p> <ol style="list-style-type: none"> (1) No additives, drilling muds, pollutional materials or drilling fluids other than gases or fresh water have been added to or are contained in the water, unless otherwise approved by the Department. (2) The pH is not less than 6 nor greater than 9 standard units, or is characteristic of the natural background quality of the groundwater. (3) The specific conductance of the discharge is less than 1,000 µmHos/cm. (4) There is no sheen from oil and grease. (5) The discharge water shall be spread over an undisturbed, vegetated area capable of absorbing the tophole water and filtering solids in the discharge, and spread in a manner that prevents a direct discharge to surface waters and complies with § 78.53 (relating to erosion and sedimentation control). (6) Upon completion, the area complies with § 78.53.

		<p>(7) The area of land application is not within 200 feet of a water supply or within 100 feet of a stream, body of water or a wetland unless approved as part of a waiver granted by the Department under section 205(b) of the act (58 P. S. § 601.205(b)).</p> <p>(8) If the water does not meet the requirements of paragraph (2) or (4), the Department may approve treatment prior to discharge to the land surface.</p> <p style="text-align: center;"><u>§ 78.63. Disposal of residual waste—land application.</u></p> <p>(a) The owner or operator may dispose of residual waste, including contaminated drill cuttings, at the well site by land application of the waste if the owner or operator satisfies the following requirements:</p> <ol style="list-style-type: none"> (1) The waste is generated by the drilling or production of an oil or gas well that is located on the well side. (2) The well is permitted under section 201 of the act (58 P. S. § 601.201) or registered under section 203 of the act (58 P. S. § 601.215). (3) The requirements of section 215 of the act (58 P. S. § 601.215) are satisfied by filing a surety or collateral bond for wells drilled on or after April 18, 1985. (4) Compliance with the act and this title is maintained. (5) The owner or operator shall notify the Department at least 3 working days before the land application activity is to occur. (6) The waste application area is not within 200 feet measured horizontally from an existing building, unless the current owner thereof has provided a written waiver consenting to the application closer than 200 feet. The waiver shall be knowingly made and separate from a lease or deed, unless the lease or deed contains an explicit waiver from the current owner. (7) The waste application area is not within 100 feet of a stream, body of water or wetland. (8) The waste application area is not within 200 feet of a water supply and is not within 1,000 feet upgradient from an uncased well or spring being used as a water supply. (9) At a minimum, the seasonal high groundwater table is 20 inches from the surface. (10) The soils located within and immediately adjacent to the application area shall fall within the United States Department of Agriculture textural classes of sandy loam, loam, sandy clay loam, silty clay loam or silt loam. (11) The soils have a minimum depth from surface to bedrock of 20 inches. (12) Ground slopes to be utilized for waste applications do not exceed 25%. (13) The waste is not spread when the ground is saturated, or when snow or frozen ground would interfere with incorporation of the waste into the soil. (14) Prior to land application of the waste, the free liquid fraction of the waste is removed and disposed under § 78.60(a) (relating to discharge requirements). (15) The waste is not applied in quantities which will result in surface or groundwater pollution. (16) The waste is not applied in quantities that will adversely affect the intended use of the vegetation. (17) The waste is spread and incorporated into the top layer of the soil to a depth of at least 6 inches. (18) The loading and application rate of waste is consistent with the Departmental guidelines for the proposed operation and may not exceed a maximum waste to soil ratio of 1:1. (19) To determine compliance with this section, the Department may require the owner or operator to conduct soil surveys, monitoring or chemical analysis. (20) The land application area shall be revegetated to stabilize the soil surface and comply with § 78.53 (relating to erosion and sedimentation control). The revegetation shall establish a diverse, effective permanent vegetative cover which is capable of self-regeneration and plant succession. Where vegetation would interfere with the intended use of the surface by the landowner, the surface shall be stabilized against erosion. (21) If a chemical analysis fails to show compliance with paragraph (18), the owner or operator shall remediate the land application area until compliance is demonstrated. <p>(b) A person may not dispose of residual waste, including contaminated drill cuttings, at the well site unless the concentration of contaminants in the leachate from the waste does not exceed the maximum concentration stated in § 261.24 Table I (relating to characteristic of toxicity).</p> <p>(c) The owner or operator may request to dispose of residual waste, including contaminated drill cuttings, in an alternate manner from that required in subsection (a) by submitting a request to the Department for approval. The request shall be made on forms provided by the Department and shall demonstrate that the practice provides equivalent or superior protection to the requirements of this section.</p>
Spills		<p style="text-align: center;"><u>§ 79.15. Fire prevention.</u></p> <p>(c) A person controlling or operating oil and gas wells or pipelines, or receiving tanks, storage tanks or receiving and storage receptacles into which crude oil is produced, received or stored, or through which oil or gas is piped or transported, shall immediately notify the Department and confirm by letter giving full details concerning fires which occur at the oil or gas wells or tanks or receptacles on their property, and that person shall immediately report and confirm in the same manner, tanks or receptacles struck by lightning and any other fire which destroys oil or gas, and also breaks in or from tanks or receptacles and pipelines from which oil or gas is escaping or has escaped. In the reports of fires, breaks or other accidents of this nature, the location of the well, tank, receptacle or line break shall be given by latitude and longitude, and property, so that the exact location thereof can be readily located on the ground. The reports shall likewise specify what steps have been taken or are in progress to remedy the situation reported and shall detail the quantity of oil or gas estimated to have been lost, destroyed or permitted to escape. In case a tank or receptacle is permitted to run over, the escape thus occurring shall be reported. The report hereby required as to oil losses shall be necessary only in case the estimated oil loss exceeds 100 barrels in the aggregate, or when the estimated gas loss exceeds 3 million cubic feet in the aggregate. The provisions of this section apply to the oil or gas losses on the lease or spacing unit and not to oil or gas losses from pipelines, or transmission lines, or transmission systems.</p>

South Dakota		
Topic	Associated Forms	Regulations: http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:10
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Form 2	<p>Administrative Rules of South Dakota 74:10:03:01. Requirements to drill, deepen, or reenter for oil or gas.</p> <p>A person drilling for oil and gas must obtain a permit to drill, deepen, or reenter a well before initiating drilling activities.</p> <p>74:10:03:05. Failure to commence drilling cancels permit -- Extensions.</p> <p>Failure to commence drilling, deepening, or reentering a well within one year after issuance of a permit cancels the permit unless a further extension is granted in writing by the secretary.</p>
Well Treatment, Stimulation and Fracturing	Sundry Notice and Report on Wells, Form 6	No specific regulations located
Well Construction	Well Completion or Recompletion Report, Form 4	<p>74:10:03:14. Oil, gas, and water strata required to be sealed.</p> <p>During the drilling of any oil, gas, injection, or disposal well, all oil, gas, or water strata above the producing or injection formation, or both, or the disposal horizon must be sealed or separated in order to prevent its content from passing into other strata. Freshwater or freshwater muds must be used from the surface to no less than 50 feet below the base of all locally utilized freshwater resources when drilling.</p> <p>74:10:03:16. Procedures for setting surface casing and production casing.</p> <p>The procedure for setting surface and production casing must meet the following conditions:</p> <p>(1) The surface hole must be drilled with fresh water. Surface casing must be set to protect freshwater resources as determined by the secretary. Cement must be used in the annulus to circulate to the surface. No less than 100 feet of surface casing may be set under any circumstances; and</p> <p>(2) Freshwater resources not presently utilized must be protected by production casing and cement. Cementing in stages, if necessary, must be done for the purpose of sealing or separating aquifers with cement that circulates in the annulus.</p> <p>The secretary shall prescribe variations in the casing and cementing procedures from area to area. The operator shall file a cement bond log within 60 days after completion of a well.</p>
Temporary Abandonment/ Shut- in Status	Sundry Notice and Report on Wells, Form 6	<p>74:10:04:03. Temporary abandonment of a well.</p> <p>Written approval must be obtained from the secretary for the temporary abandonment of a well. A well that is not completed with production casing may not be temporarily abandoned and must be plugged immediately. A well with production casing may not be temporarily abandoned for more than six months, unless the operator is granted an extension by the secretary.</p> <p>Before approving a request for extension, the secretary may require mechanical integrity testing of the temporarily abandoned or shut-in well. A temporarily abandoned or shut-in well which successfully passes a mechanical integrity test may not be required to undergo another test for five years unless the secretary finds that circumstances have substantially changed to alter the condition of the well.</p>
Well Plugging	Sundry Notice and Report on Wells, Form 6 Plugging Record, Form 7	<p>74:10:04:01. Notification of plugging and abandoning of well.</p> <p>The operator must notify the secretary by phone prior to the plugging and abandonment of a well. This notification must include the proposed plugging method. The operator must file a complete plugging record within 30 days after plugging and abandonment operations are complete on a form provided by the secretary.</p> <p>74:10:04:02. Secretary to approve method of plugging.</p> <p>Before a well is abandoned, it must be plugged in a manner that will permanently confine all oil, gas, water, and other fluids to the strata in which they originally occurred. The minimum procedures required may vary from area to area depending on geological characteristics. Variations in procedure may be used only after approval of the secretary. The following procedures are minimum requirements:</p> <p>(1) The method of placing cement in the hole must be approved by the secretary;</p> <p>(2) No substance other than that normally used in drilling or plugging operations may be placed in any well at any time before or during plugging operations;</p> <p>(3) The interval between all cement plugs must be filled with a heavy mud-laden fluid approved by the secretary;</p> <p>(4) The following procedure for the placement of cement plugs applies to all oil, gas, and injection wells unless the secretary authorizes an alternative procedure:</p> <p>(a) Wells without production casing:</p> <p>(i) All aquifers, salt zones, and fluid-bearing formations must be sealed or separated with individual cement plugs, circulated to fill at least 100 feet of hole. Each individual cement plug must be at least 50 feet above the top of these formations, as specified by the secretary;</p> <p>(ii) Cement must be circulated to fill at least a 100-foot interval, of which at least 50 feet must be above the shoe of the surface casing; and</p> <p>(iii) A cement plug must be set at the surface as prescribed by the secretary;</p>

		<p>(b) Wells with production casing:</p> <p>(i) All perforations must be isolated, either by squeeze cementing or placing a cast iron bridge plug, with a minimum of 10 sacks of cement, above the perforations. The secretary shall determine which method and the volume of cement that shall be used;</p> <p>(ii) The operator may leave the production casing in place, but must demonstrate that the casing exhibits mechanical integrity in a manner prescribed by the secretary. If the casing fails a mechanical integrity test, the secretary may require additional perforating and squeeze cementing or the placing of balanced cement plugs inside the casing. If it is determined that any formations identified in subsection 74:10:04:02(4)(a) were not sealed or separated when the production casing was cemented, the secretary may also require additional perforating and squeeze cementing. The secretary may also require the production casing to be perforated at the depth of the shoe of the surface casing and that cement be squeezed or circulated through the perforations; and</p> <p>(iii) The operator may attempt to pull the production casing. After the retrievable part of the production casing has been removed, cement must be circulated to fill at least a 100-foot interval, of which at least 50 feet must be inside the casing stub. If reentry into the casing stub is not possible, the secretary shall determine the placement of the cement plug. The remainder of the hole must be plugged in the manner prescribed in subsection 74:10:04:02(4)(a);</p>
Tanks		<p>74:10:05:11. Oil storage in open receptacles prohibited –</p> <p>Fire walls required on oil tanks. Oil may not be stored or retained in earthen reservoirs or in open receptacles. Dikes or fire walls must be erected and kept around all oil tanks or battery of tanks. The dikes or fire walls must be constructed so they can contain at least one and one-half times the volume of the largest tank in the battery.</p> <p>74:10:05:15. Approval required for construction of produced water handling facilities.</p> <p>Surface tanks may be used as a storage facility for produced water if they are constructed of materials resistant to the corrosive effects of the contained liquids. The tanks must be protected by a dike that is capable of containing one and one-half times the volume of the largest tank.</p>
Pits	Application for Pit Liner Variance, Form 11	<p>74:10:03:13. Pit construction and reclamation.</p> <p>All pits used for storage of exploration and production wastes must be constructed, maintained, and reclaimed so as to prevent contamination of soil and all waters of the state. Under no circumstances may these pits be used for disposal, dumping, or storage of solid or hazardous wastes, and other debris not commonly used in these operations. The following construction and reclamation procedures for earthen pits are minimum requirements:</p> <p>(1) Pit construction procedures:</p> <p>(a) Pits may not be located in stream beds or within other defined or established drainages;</p> <p>(b) Synthetic membrane liners, which are compatible with the materials to be contained, are required in all pits, unless a variance is granted by the secretary for good cause shown. Good cause shown includes permeability characteristics, lack of shallow groundwater, and the water quality of the contained fluids. The synthetic membrane liner must have a minimum thickness of 12 mils. The synthetic membrane liner seams must be sealed according to the manufacturer's instructions. The synthetic liner must be installed undamaged on a properly prepared subgrade, free from angular rocks, roots, grass and other vegetation, and other foreign matter that may damage the integrity of the synthetic membrane liner. Any liner which incurs damage must be repaired or replaced immediately according to the manufacturer's instructions;</p> <p>(c) All pits must be constructed so that the bottom of the pit is above the seasonal high-water table; and</p> <p>(d) All pits must be constructed so that no surface water enters the pit;</p> <p>74:10:05:15. Approval required for construction of produced water handling facilities.</p> <p>Operators must obtain written approval from the secretary before constructing or converting an earthen pit for produced water disposal by evaporation. All pits shall be kept reasonably free of surface accumulations of oil and other liquid hydrocarbon substances. The construction and reclamation requirements of the pit shall be in accordance with Å§ 74:10:03:13.</p>
Exempt Waste Handling	Monthly Report of Production for Oil & Gas Wells, Form 5	<p>74:10:05:11.03. Remediation and disposal of soils contaminated by crude oil.</p> <p>All visibly contaminated soil resulting from crude oil releases at operating oil wells, tank batteries, and Class II injection wells must be remediated or removed and disposed of in accordance with article 74:27.</p> <p>74:10:05:13. Disposal of produced water.</p> <p>All water produced with oil and gas shall be disposed of by injection in a permitted disposal or enhanced recovery well, by evaporation in an approved pit, or by discharge into a surface water source through an outfall permitted under chapter 74:03:17. Produced water must be disposed of without pollution of freshwater resources. Dumping of produced water on roads is prohibited, unless permitted by the secretary for dust suppression. Produced water blown from a gas well must be contained in lined pits or surface tanks and may not be allowed to freely blow into the atmosphere or surrounding environment, unless the secretary determines that the discharge will cause no environmental degradation and approves the discharge.</p>
Spills	Sundry Notice and Report on Wells, Form 6	<p>74:10:05:11.01 Immediate notice by telephone or facsimile required of fire, releases, breaks, leaks, or blowouts.</p> <p>If any of the following exists, a person controlling or operating an oil well, gas well, pipeline, receiving tank, or other storage receptacle into which crude oil or gas is produced, received, or stored, or through which crude oil or gas is piped or transported must notify the secretary by telephone or facsimile of all fires, breaks, leaks, releases, and blowouts as soon as they are discovered:</p> <p>(1) The fire or release threatens or is in a position to threaten the waters of the state, causes an immediate danger to human health or safety, or harms or threatens to harm wildlife or aquatic life;</p>

		(2) A release of crude oil exceeds the reportable quantities of 49 CFR 171.15, causes a sheen on surface water, or exceeds any groundwater standards of chapter 74:03:15, or surface water quality standards of chapter 74:03:02; or
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Tennessee		
Topic	Associated Forms	Regulations: http://www.state.tn.us/sos/rules/1040/1040.htm
Excerpted Text by Topic		
Permitting	Application for Permit to Drill, Form CN-0211 (P-AD-1)	<p>Rules of the Tennessee State Oil and Gas Board 1040-2-2-.01 PERMIT REQUIRED.</p> <p>(1) A permit is required from the Supervisor before any person shall conduct operations described in chapter 1040-2-1 through Chapter 1040-2-12. Each permit, when granted, shall expire ninety (90) days after issuance unless the applicant has commenced operations and reasonably continues said operations pursuant to the permitted objective. Any permit now in force shall expire ninety (90) days from the date of this order unless permittee complies with this requirement. If a permitted location is to be abandoned without the commencement of any drilling activity, then the operator must notify the Supervisor in writing within thirty (30) days after expiration of the permit.</p>
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Well History, Work Summary, And Completion or Recompletion Report, Form R-WH-1	<p>1040-2-7-.02 SURFACE CASING.</p> <p>The operator's proposed surface program must be submitted, for approval by the Supervisor, on Application for Permit to Drill (Form P-AD-1). If the Supervisor deems the casing program inadequate to protect fresh water zones and potential minable coal and other minerals, etc., he shall prescribe the casing program with which the operator will comply. Unless an exception is granted by the Supervisor, suitable and sufficient surface casing shall be run and cemented to a depth not less than fifty (50) feet below all fresh water strata encountered in the well and in a manner that will protect such fresh water from contamination resulting from drilling operations. The cement must fill the annular space behind the surface casing from the base thereof to the surface of the ground. If cement returns are not received to the surface, then the annulus must be cemented from the top. The Supervisor or his representative shall be given notice of cementing of surface casing at least 12 hours prior to conducting such operation. The Supervisor or his representative may witness the cementing operation. Form R-WH- 1 must be accompanied by a copy of the drilling contractor's or service company's ticket for the work performed. A cement basket and centralizer are to be run on the surface casing between the first and second joints of surface casing or as directed by the supervisor.</p> <p>1040-2-7-.03 PRODUCTION CASING.</p> <p>The production, oil, or flow string, is that casing used for the purpose of segregating the zone from which production is obtained and affording a means of communication between such zone and the surface. A description of the work done under this section must be reported to the Supervisor on Well History, Work Summary, and Completion or Recompletion Report (Form R-WH-1) within sixty (60) days after completion.</p> <p>1040-2-7-.04 ISOLATION OF OIL, GAS AND FRESH-WATER-BEARING STRATA, AND POTENTIAL MINABLE COAL AND OTHER MINERAL DEPOSITS.</p> <p>Notwithstanding compliance with the foregoing requirements, all potential minable coal and other minerals must be isolated from any possible communication through the annulus with oil-, gas- or water-bearing strata or deposits of other potential minable coal or other minable minerals. In order to ascertain whether or not such work has been reasonably performed, the operator may elect to either run a cement bond log, or block squeezed each stratum or zone which is required to be isolated. If the cement bond log indicates a minimum of twenty-five (25) feet of cement bond above the top and twenty-five (25) feet of bond below the base of each stratum or zone to be isolated, then the provision of this rule shall have been complied with. If such bonding is not shown by the bond log, the Supervisor may require the operator to perform the necessary work to assure the isolation of such above described strata zones.</p>
Temporary Abandonment/ Shut- in Status		<p>1040-2-9-.04 TIME LIMIT FOR PLUGGING WELLS.</p> <p>All wells drilled for oil and gas and found to be dry shall be plugged within six (6) months from cessation of drilling. Upon written request to the Supervisor showing good cause, an extension of up to ninety (90) days additional may be granted. No operator or owner shall permit any well drilled for oil, gas, salt water disposal or any other purpose in connection with the production of oil and gas, to remain unplugged after such well is no longer used for the purpose for which it was drilled or converted.</p> <p>Nothing herein shall prevent utilizing a well for the purpose of introducing air, gas, fresh water or other liquid pressure into or upon the producing strata for the purpose of recovering oil and gas. All wells which are neither producing nor plugged shall be cased and capped in such a manner so as to protect all potential oil and/or gas zones, and fresh water.</p>
Well Plugging	Plug and Abandon Report, Form R-P&A-1	<p>1040-2-2-.04 NOTIFICATION TO PLUG AND ABANDON.</p> <p>Prior to plugging, notice shall be given the Supervisor in order that the Supervisor or his representative may witness the work. Work performed must be reported to the Supervisor on the Plug and Abandon Report (Form R-P&A-1) within thirty (30) days after completing the work. Form R-P&A-1 must be accompanied by a copy of the drilling contractor's or the service company's ticket for work done unless the work was observed by the Supervisor or his representative.</p> <p>1040-2-9-.01 PLUGGING WELLS.</p> <p>(1) All wells which are to be abandoned may be filled with a mud fluid of sufficient weight to offset the hydrostatic pressure of any formation penetrated. Sufficient cement plugs must be efficiently placed in number and properly located as to prevent the commingling of oil, gas, salt water, and fresh water from one zone to another, and to isolate potentially minable coal beds and seams and other potentially extractable minerals. All downhole plugs may be "felt for" to insure</p>

	<p>that they have been properly placed.</p> <p>(2) The specific method and procedure for plugging a well shall be as follows:</p> <p>(a) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than twentyfive (25) feet in length shall be placed between each producing formation, whenever possible.</p> <p>(b) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than twentyfive (25) feet in length shall be placed at the base of the surface casing. The plug shall be placed so that at least ten (10) feet of cement extends up into the casing.</p> <p>(c) A mechanical plug, or a brush and stone plug, and a neat cement plug of not less than twentyfive (25) feet shall be placed at the surface of the well. The surface casing shall be cut off below plow depth at the request of the landowner or when determined appropriate by the supervisor or his representative.</p> <p>(d) In a well with casing that does not seal off the ground water, a mechanical plug, or a brush and stone plug, and a neat cement plug must be set fifty (50) feet below the deepest known ground water strata. The cement plug must be adequate in length to reach at least ten (10) feet in to the casing.</p> <p>(e) In an uncased well, a mechanical plug, or a brush and stone plug, and a neat cement plug must be set at least fifty (50) feet below the deepest ground water strata and extend up to the surface or just below plow depth if appropriate.</p> <p>(f) The mechanical or brush and stone plug method maybe replaced by filling the well from total depth to the surface with cement, provided, however, that such method must be either prescribed or approved by the Supervisor.</p> <p>(g) If there is fluid in the well, a dump bailer or tubing may be used to place the cement in the well.</p> <p>(h) If drilling mud or water are present in the well, they may be used as a filler between cement plugs.</p> <p>(3) Any other methods not defined above, but approved by the Supervisor, may be used.</p> <p>1040-2-9-.02 INSPECTION.</p> <p>The Supervisor or his representative must be given notice of intent to plug a well at least 12 hours prior to conducting such operation. The Supervisor or his representative may inspect the work of abandonment as it progresses, check the location and quality of plugs, check the amount of casing pulled, and check the demonstration of movement, if any, of oil, gas, or water. The operator must submit a Plug and Abandon Report (Form R-P & A-1) covering the work performed to the Supervisor within thirty (30) days after plugging and abandoning the well. This work must be observed by the Supervisor or his representative and that observance verified by his signature on the Plug and Abandon Report (Form R-P & A-1).</p>
Tanks	<p>1040-4-1-.07 CONTAINMENT PIT AT TANK BATTERIES</p> <p>A containment pit is required at each permanent oil tank or battery of tanks located within corporate limits or where such tanks are less than six hundred (600) feet from any highway or inhabited dwelling, or less than one thousand (1,000) feet from any school or church or within one hundred (100) feet of a stream or where such tanks are so located as to be deemed hazardous by the Supervisor.</p> <p>Tanks not falling in the aforementioned categories must be surrounded by a retaining wall or suitably ditched to a collecting sump, each of sufficient capacity and construction to contain potential spillage.</p>
Pits	<p>1040-3-3-.01 SAFETY.</p> <p>(7) All wells shall have the equipment and containers or lined pits necessary to prevent the spillage of oil, condensate, water, or any other fluids or substances produced or used during any production test. The equipment shall be in place prior to the start of the production test, and shall be large enough to contain any plausible spill.</p> <p>(8) All wells shall be cleaned into a pit or tank, located at a distance of at least one hundred (100) feet from any fire hazard or dwellings.</p> <p>(a) If pits are to be used, the sides and bottoms of the pits must be lined with heavy gauge seamless plastic sheets, or other artificial liner approved by the Supervisor.</p> <p>(b) If it seems likely that a pit will overflow, additional pits must be constructed, or else tanks must be brought in to contain the surplus fluids.</p>
Exempt Waste Handling	<p>1040-4-1-.03 PROPER DISPOSAL OF WASTE</p> <p>No waste oil, oil field waste, or any other fluid substance shall be discharged to or disposed of in any way into any stream, lake, or other body of water, or into any ditch or surface drainage depression leading to any stream, lake, or other body of water, except in accordance with a discharge permit obtained from the Department of Environment and Conservation.</p> <p>1040-4-1-.05 POLLUTION AVOIDANCE</p> <p>All waste shall be burned or disposed of in such a manner as to avoid creating a fire hazard or polluting streams and ground water.</p> <p>1040-4-1-.12 DISPOSAL OF SALT WATER</p> <p>(1) Underground injection is the preferred form of disposal of salt water, provided, however, that such injection is permitted by appropriate State and Federal agencies.</p> <p>(2) Produced salt water may either be injected into a subsurface formation(s) productive of hydrocarbons, if part of an approved secondary recovery project, into a subsurface formation(s) not productive of hydrocarbons, if through an approved salt water disposal well, or else may be transported off-lease to an authorized salt water disposal facility if prior approval has been granted by the State Oil and Gas Board.</p> <p>(3) Produced salt water shall not be put in any unlined pit, pond, lake or depression, or in any other place in a manner that will constitute a pollution hazard to the waters of the State including ground water.</p> <p>(4) No salt water shall be discharged to or disposed of at the land surface where it can enter surface water or ground water. Salt water discharged to and temporarily stored in lined pits shall be removed before it can leak into underground water.</p> <p>(5) All pits or ditches used for temporary storage or transport of salt water shall be lined with an impermeable man-made liner.</p>

	<p><i>Editors Note: See Spills section below for additional information on Exempt Waste Handling</i></p>
<p>Spills</p>	<p>1040-3-3-.02 POLLUTION AND SAFETY CONTROLS.</p> <p>(1) All personnel, including operators and service personnel shall be trained in the prevention of spills and made aware of the consequences of spillage. There shall be a Site Coordinator designated for each well site who will be the principle contact for all activities on the location and the responsible party for submitting an action and safety plan for each well site.</p> <p>(2) Implement necessary procedures and safeguards during drilling and completion operations to prevent the uncontrolled flow of oil from wells, including, but not limited to:</p> <ul style="list-style-type: none"> (c) At truck loading terminals, provide containers to catch unrecoverable oil at the hose connections, and provide proper maintenance of valves and other equipment. Train personnel to take necessary procedures to prevent spillage. (d) During completion operations, produce and clean wells into tanks instead of pits if at all possible. (e) At the same time that any pits or other diversion, transport, or storage facilities are constructed at ground level, dikes, diversion ditches, or other structures shall also be constructed to prevent any surface water from entering the pits or other facilities. (f) Remove oil, salt water, or other fluids from pits as soon as practical after it has accumulated in them, and dispose of it in such a way that none can enter surface water or ground water, or otherwise adversely affect the environment or threaten public health and safety. (g) All pits or other diversion, transport, or storage facilities shall be constructed so that waste fluids can drain only into pits, and none can escape into the waters of the State, including ground water. There shall be no discharge pipe, overflow weir, trickle tube, or any other device allowing any discharge, unless the operator holds a valid NPDES permit from the Department of Environment and Conservation. No pit shall be located so that any part of it, including a dike or diversion structure, is within a horizontal distance of twenty-five (25) feet of the normal highwater line of any stream or lake.

Texas		
Topic	Associated Forms	Regulations: http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=4&ti=16&pt=1&ch=3&rl=Y Excerpted Text by Topic
Permitting	Application for Permit to Drill, Recomplete or Reenter, Form W-1	<p>Texas Administrative Code, Title 16, Part 1, Chapter 3: Oil and Gas Rule 3.5 Application to Drill, Deepen, Reenter or Plug Back</p> <p>(c) Commencement of operations. Operations of drilling, deepening, plugging back, or reentering shall not be commenced until the permit has been granted by the commission and the waiting period, if any, has terminated, or authorization has been granted pursuant to subsection (d) of this section.</p>
Well Treatment, Stimulation and Fracturing	Oil Well Potential Test, Completion or Recompletion Report, Form W-2	No specific regulation located
Well Construction	<p>Oil Well Potential Test, Completion or Recompletion Report, Form W-2</p> <p>Cementing Report, Form W-15</p>	<p>Rule §3.7 Strata To Be Sealed Off</p> <p>Whenever hydrocarbon or geothermal resource fluids are encountered in any well drilled for oil, gas, or geothermal resources in this state, such fluid shall be confined in its original stratum until it can be produced and utilized without waste. Each such stratum shall be adequately protected from infiltrating waters. Wells may be drilled deeper after encountering a stratum bearing such fluids if such drilling shall be prosecuted with diligence and any such fluids be confined in its stratum and protected as aforesaid upon completion of the well. The commission will require each such stratum to be cased off and protected, if in its discretion it shall be reasonably necessary and proper to do so.</p> <p>Rule 3.13 Casing, Cementing, Drilling and Completion Requirements</p> <p>(b) Onshore and inland waters.</p> <p>(1) General.</p> <p>(A) All casing cemented in any well shall be steel casing that has been hydrostatically pressure tested with an applied pressure at least equal to the maximum pressure to which the pipe will be subjected in the well. For new pipe, the mill test pressure may be used to fulfill this requirement. As an alternative to hydrostatic testing, a full length electromagnet, ultrasonic, radiation thickness gauging, or magnetic particle inspection may be employed.</p> <p>(B) Wellhead assemblies shall be used on wells to maintain surface control of the well. Each component of the wellhead shall have a pressure rating equal to or greater than the anticipated pressure to which that particular component might be exposed during the course of drilling, testing, or producing the well.</p> <p>(C) A blowout preventer or control head and other connections to keep the well under control at all times shall be installed as soon as surface casing is set. This equipment shall be of such construction and capable of such operation as to satisfy any reasonable test which may be required by the commission or its duly accredited agent.</p> <p>(D) When cementing any string of casing more than 200 feet long, before drilling the cement plug the operator shall test the casing at a pump pressure in pounds per square inch (psi) calculated by multiplying the length of the casing string by 0.2. The maximum test pressure required, however, unless otherwise ordered by the commission, need not exceed 1,500 psi. If, at the end of 30 minutes, the pressure shows a drop of 10% or more from the original test pressure, the casing shall be condemned until the leak is corrected. A pressure test demonstrating less than a 10% pressure drop after 30 minutes is proof that the condition has been corrected.</p> <p>(E) Wells drilling to formations where the expected reservoir pressure exceeds the weight of the drilling fluid column shall be equipped to divert any wellbore fluids away from the rig floor. All diverter systems shall be maintained in an effective working condition. No well shall continue drilling operations if a test or other information indicates the diverter system is unable to function or operate as designed.</p> <p>(2) Surface casing.</p> <p>(A) Amount required.</p> <p>(i) An operator shall set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the TCEQ. Before drilling any well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable field rules, an operator shall obtain a letter from the TCEQ stating the protection depth. In no case, however, is surface casing to be set deeper than 200 feet below the specified depth without prior approval from the commission.</p> <p>(ii) Any well drilled to a total depth of 1,000 feet or less below the ground surface may be drilled without setting surface casing provided no shallow gas sands or abnormally high pressures are known to exist at depths shallower than 1,000 feet below the ground surface; and further, provided that production casing is cemented from the shoe to the ground surface by the pump and plug method.</p> <p>(B) Cementing. Cementing shall be by the pump and plug method. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. If cement does not circulate to ground surface or the bottom of the cellar, the operator or his representative shall obtain the approval of the district director for the procedures to be used to perform additional cementing operations, if needed, to cement surface casing from the top of the cement to the ground surface.</p> <p>(C) Cement quality.</p> <p>(i) Surface casing strings must be allowed to stand under pressure until the cement has reached a compressive strength of at least 500 psi in the zone of critical cement before drilling plug or initiating a test. The cement mixture in the zone of critical cement shall have a 72-hour compressive</p>

strength of at least 1,200 psi.

(ii) An operator may use cement with volume extenders above the zone of critical cement to cement the casing from that point to the ground surface, but in no case shall the cement have a compressive strength of less than 100 psi at the time of drill out nor less than 250 psi 24 hours after being placed.

(iii) In addition to the minimum compressive strength of the cement, the API free water separation shall average no more than six milliliters per 250 milliliters of cement tested in accordance with the current API RP 10B.

(iv) The commission may require a better quality of cement mixture to be used in any well or any area if evidence of local conditions indicates a better quality of cement is necessary to prevent pollution or to provide safer conditions in the well or area.

(D) Compressive strength tests. Cement mixtures for which published performance data are not available must be tested by the operator or service company. Tests shall be made on representative samples of the basic mixture of cement and additives used, using distilled water or potable tap water for preparing the slurry. The tests must be conducted using the equipment and procedures adopted by the American Petroleum Institute, as published in the current API RP 10B. Test data showing competency of a proposed cement mixture to meet the above requirements must be furnished the commission prior to the cementing operation. To determine that the minimum compressive strength has been obtained, operators shall use the typical performance data for the particular cement used in the well (containing all the additives, including any accelerators used in the slurry) at the following temperatures and at atmospheric pressure.

(i) For the cement in the zone of critical cement, the test temperature shall be within 10 degrees Fahrenheit of the formation equilibrium temperature at the top of the zone of critical cement.

(ii) For the filler cement, the test temperature shall be the temperature found 100 feet below the ground surface level, or 60 degrees Fahrenheit, whichever is greater.

(E) Cementing report. Upon completion of the well, a cementing report must be filed with the commission furnishing complete data concerning the cementing of surface casing in the well as specified on a form furnished by the commission. The operator of the well or his duly authorized agent having personal knowledge of the facts, and representatives of the cementing company performing the cementing job, must sign the form attesting to compliance with the cementing requirements of the commission.

(F) Centralizers. Surface casing shall be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, pipe centralization as follows is required: a centralizer shall be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers shall meet API spec 10D specifications. In deviated holes, the operator shall provide additional centralization.

(G) Alternative surface casing programs.

(i) An alternative method of fresh water protection may be approved upon written application to the appropriate district director. The operator shall state the reason (economics, well control, etc.) for the alternative fresh water protection method and outline the alternate program for casing and cementing through the protection depth for strata containing usable-quality water. Alternative programs for setting more than specified amounts of surface casing for well control purposes may be requested on a field or area basis. Alternative programs for setting less than specified amounts of surface casing will be authorized on an individual well basis only. The district director may approve, modify, or reject the proposed program. If the proposal is modified or rejected, the operator may request a review by the director of field operations. If the proposal is not approved administratively, the operator may request a public hearing. An operator shall obtain approval of any alternative program before commencing operations.

(ii) Any alternate casing program shall require the first string of casing set through the protection depth to be cemented in a manner that will effectively prevent the migration of any fluid to or from any stratum exposed to the wellbore outside this string of casing. The casing shall be cemented from the shoe to ground surface in a single stage, if feasible, or by a multi-stage process with the stage tool set at least 50 feet below the protection depth.

(iii) Any alternate casing program shall include pumping sufficient cement to fill the annular space from the shoe or multi-stage tool to the ground surface. If cement is not circulated to the ground surface or the bottom of the cellar, the operator shall run a temperature survey or cement bond log. The appropriate district office shall be notified prior to running the required temperature survey or bond log. After the top of cement outside the casing is determined, the operator or his representative shall contact the appropriate district director and obtain approval for the procedures to be used to perform any required additional cementing operations. Upon completion of the well, a cementing report shall be filed with the commission on the prescribed form.

(iv) Before parallel (nonconcentric) strings of pipe are cemented in a well, surface or intermediate casing must be set and cemented through the protection depth.

(3) Intermediate casing.

(A) Cementing method. Each intermediate string of casing shall be cemented from the shoe to a point at least 600 feet above the shoe. If any productive horizon is open to the wellbore above the casing shoe, the casing shall be cemented from the shoe up to a point at least 600 feet above the top of the shallowest productive horizon or to a point at least 200 feet above the shoe of the next shallower casing string that was set and cemented in the well.

(B) Alternate method. In the event the distance from the casing shoe to the top of the shallowest productive horizon make cementing, as specified above, impossible or impractical, the multi-stage process may be used to cement the casing in a manner that will effectively seal off all such possible productive horizons and prevent fluid migration to or from such strata within the wellbore.

(4) Production casing.

(A) Cementing method. The producing string of casing shall be cemented by the pump and plug method, or another method approved by the commission, with sufficient cement to fill the annular space back of the casing to the surface or to a point at least 600 feet above the shoe. If any productive horizon is open to the wellbore above the casing shoe, the casing shall be cemented in a manner that effectively seals off all such possibly productive horizons by one of the methods specified for intermediate casing in paragraph (3) of this subsection.

(B) Isolation of associated gas zones. The position of the gas-oil contact shall be determined by coring, electric log, or testing. The producing string shall be landed and cemented below the gas-oil contact, or set completely through and perforated in the oil-saturated portion of the reservoir below the gas-oil contact.

(5) Tubing and storm choke requirements.

(A) Tubing requirements for oil wells. All flowing oil wells shall be equipped with and produced through tubing. When tubing is run inside casing in any flowing oil well, the bottom of the tubing shall be at a point not higher than 100 feet above the top of the producing interval nor more than 50 feet above the top of a line, if one is used. In a multiple zone structure, however, when an operator elects to equip a well in such a manner that small through-the-

		<p>tubing type tools may be used to perforate, complete, plug back, or recompleat without the necessity of removing the installed tubing, the bottom of the tubing may be set at a distance up to, but not exceeding, 1,000 feet above the top of the perforated or open-hole interval actually open for production into the wellbore. In no case shall tubing be set at a depth of less than 70% of the distance from the surface of the ground to the top of the interval actually open to production.</p>
<p>Temporary Abandonment/ Shut- in Status</p>	<p>Oil Well Status Report, Form W-10</p>	<p>Rule §3.14 Plugging</p> <p>(b) Commencement of plugging operations, extensions, and testing.</p> <p>(2) Plugging operations on each dry or inactive well shall be commenced within a period of one year after drilling or operations cease and shall proceed with due diligence until completed. Plugging operations on delinquent inactive wells shall be commenced immediately unless the well is restored to active operation. For good cause, a reasonable extension of time in which to start the plugging operations may be granted pursuant to the following procedures.</p> <p>(A) Plugging of inactive wells operated by unbonded operators. During the interim period between September 1, 2004, and the first date for annual renewal of an unbonded operator's organization report after September 1, 2004, the Commission or its delegate may administratively grant an extension of up to one year of the deadline for plugging an inactive well that is operated by an unbonded operator if the following criteria are met:</p> <ul style="list-style-type: none"> (i) The well and associated facilities are in compliance with all other laws and Commission rules; (ii) The operator's organization report is current and active; (iii) The operator has, and upon request provides evidence of, a good faith claim to a continuing right to operate the well; and (iv) The operator has tested the well in accordance with the provisions of paragraph (3) of this subsection and files with its application proof of either: <ul style="list-style-type: none"> (I) a fluid level test conducted within 90 days prior to the application for a plugging extension demonstrating that any fluid in the wellbore is at least 250 feet below the base of the deepest usable quality water stratum; or, (II) a hydraulic pressure test conducted during the period the well has been inactive and not more than four years prior to the date of application demonstrating the mechanical integrity of the well. <p>(B) Plugging of inactive wells operated by bonded operators. An operator that maintains valid, Commission-approved financial security in the form of an individual performance bond, blanket performance bond, letter of credit, or cash deposit as provided in §3.78 of this title (relating to Fees and Financial Security Requirements) (Statewide Rule 78) will be granted a one-year plugging extension for each well it operates that has been inactive for 12 months or more at the time its annual organizational report is approved by the Commission if the following criteria are met:</p> <ul style="list-style-type: none"> (i) The well and associated facilities are in compliance with all laws and Commission rules; and, (ii) The operator has, and upon request provides evidence of, a good faith claim to a continuing right to operate the well. <p>(C) Revocation or denial of plugging extension.</p> <ul style="list-style-type: none"> (i) The Commission or its delegate may revoke a plugging extension if the operator of the well that is the subject of the extension fails to maintain the well and all associated facilities in compliance with Commission rules; fails to maintain a current and accurate organizational report on file with the Commission; fails to provide the Commission, upon request, with evidence of a continuing good faith claim to operate the well; or fails to obtain or maintain financial security as required by §3.78 of this title (relating to Fees and Financial Security Requirements) (Statewide Rule 78). (ii) If the Commission or its delegate declines to grant or continue a plugging extension or revokes a previously granted extension, the operator shall either return the well to active operation or, within 30 days, plug the well or request a hearing on the matter. <p>(3) The operator of any well more than 25 years old that becomes inactive and subject to the provisions of this subsection or the operator of any well for which a plugging extension is sought under the terms of subparagraph (A) of paragraph (2) of this subsection shall plug the well or successfully conduct a fluid level or hydraulic pressure test establishing that the well does not pose a potential threat of harm to natural resources, including surface and subsurface water, oil and gas.</p> <p>(A) In general, a fluid level test is a sufficient test for purposes of this paragraph. The operator shall give the district office written notice specifying the date and approximate time it intends to conduct the fluid level test at least 48 hours prior to conducting the test; however, upon a showing of undue hardship, the district director or the director's delegate may grant a written waiver or reduction of the notice requirement for a specific well test. The director or the director's delegate may require alternate methods of testing if necessary to ensure the well does not pose a potential threat of harm to natural resources. Alternate methods of testing may be approved by the director or the director's delegate by written application and upon a showing that such a test will provide information sufficient to determine that the well does not pose a threat to natural resources.</p> <p>(B) No test other than a fluid level test shall be acceptable without prior approval from the district director or the director's delegate. The district director or the director's delegate shall be notified at least 48 hours before any test other than a fluid level test is conducted. Mechanical integrity test results shall be filed with the district office and fluid level test results shall be filed with the Commission in Austin. Test results shall be filed on a Commission-approved form, within 30 days of the completion of the test. Upon request, the operator shall file the actual test data for any mechanical integrity or fluid level test that it has conducted.</p>
<p>Well Plugging</p>	<p>Notice of Intention to Plug and Abandon, Form W-3A</p> <p>Plugging Record, Form W-3</p>	<p>Rule §3.14 Plugging</p> <p>(2) The operator shall give the Commission notice of its intention to plug any well or wells drilled for oil, gas, or geothermal resources or for any other purpose over which the Commission has jurisdiction, except those specifically addressed in §3.100(e)(1) of this title (relating to Seismic Holes and Core Holes) (Statewide Rule 100), prior to plugging. The operator shall deliver or transmit the written notice to the district office on the appropriate form.</p> <p>(3) The operator shall cause the notice of its intention to plug to be delivered to the district office at least five days prior to the beginning of plugging operations. The notice shall set out the proposed plugging procedure as well as the complete casing record. The operator shall not commence the work of plugging the well or wells until the proposed procedure has been approved by the district director or the director's delegate. The operator shall not initiate approved plugging operations before the date set out in the notification for the beginning of plugging operations unless authorized by the district director or the director's delegate. The operator shall notify the district office at least four hours before commencing plugging operations and proceed with the work as approved. The district director or the director's delegate may grant exceptions to the requirements of this paragraph concerning the timing of notices when a workover or drilling rig is already at work on location, and ready to commence plugging operations. Operations shall not be suspended prior to plugging the well unless the hole is cased and casing is cemented in place in compliance with Commission rules. The Commission's approval of a notice of intent to plug and abandon a well shall not relieve an operator of the requirement to comply with subsection (b)(2) of this section, nor does such approval constitute an extension of time to comply with subsection (b)(2) of this section.</p>

(d) General plugging requirements.

(1) Wells shall be plugged to insure that all formations bearing usable quality water, oil, gas, or geothermal resources are protected. All cementing operations during plugging shall be performed under the direct supervision of the operator or his authorized representative, who shall not be an employee of the service or cementing company hired to plug the well. Direct supervision means supervision at the well site during the plugging operations. The operator and the cementer are both responsible for complying with the general plugging requirements of this subsection and for plugging the well in conformity with the procedure set forth in the approved notice of intention to plug and abandon for the well being plugged. The operator and cementer may each be assessed administrative penalties for failure to comply with the general plugging requirements of this subsection or for failure to plug the well in conformity with the approved notice of intention to plug and abandon the well.

(2) Cement plugs shall be set to isolate each productive horizon and usable quality water strata. Plugs shall be set as necessary to separate multiple usable quality water strata by placing the required plug at each depth as determined by the Texas Commission on Environmental Quality or its successor agencies. The operator shall verify the placement of the plug required at the base of the deepest usable quality water stratum by tagging with tubing or drill pipe or by an alternate method approved by the district director or the district director's delegate.

(3) Cement plugs shall be placed by the circulation or squeeze method through tubing or drill pipe. Cement plugs shall be placed by other methods only upon written request with the written approval of the district director or the director's delegate.

(4) All cement for plugging shall be an approved API oil well cement without volume extenders and shall be mixed in accordance with API standards. Slurry weights shall be reported on the cementing report. The district director or the director's delegate may require that specific cement compositions be used in special situations; for example, when high temperature, salt section, or highly corrosive sections are present. An operator shall request approval to use alternate materials, other than API oil well cement without volume extenders, to plug a well by filing with the director or the director's delegate a written request providing all pertinent information to support the use of the proposed alternate material and plugging method. The director or the director's delegate shall determine whether such a request warrants approval, after considering factors which include but are not limited to whether or not the well to be plugged was used as an injection or disposal well; the well's history; the well's current bottom hole pressure; the presence of highly pressurized formations intersected by the wellbore; the method by which the alternative material will be placed in the wellbore; and the compressive strength and other performance specifications of the alternative material to be used. The director or the director's delegate shall approve such a request only if the proposed alternate material and plugging method will ensure that the well does not pose a potential threat of harm to natural resources.

(5) Operators shall use only cementers approved by the director or the director's delegate, except when plugging is conducted in accordance with subparagraph (B)(ii) of this paragraph or paragraph (6) of this subsection. Cementing companies, service companies, or operators may apply for designation as approved cementers. Approval will be granted on a showing by the applicant of the ability to mix and pump cement or other alternate materials as approved by the director or the director's delegate in compliance with this rule. An approved cementer is authorized to conduct plugging operations in accordance with Commission rules in each Commission district.

(e) Plugging requirements for wells with surface casing.

(1) When insufficient surface casing is set to protect all usable quality water strata and such usable quality water strata are exposed to the wellbore when production or intermediate casing is pulled from the well or as a result of such casing not being run, a cement plug shall be a minimum of 100 feet in length and shall extend at least 50 feet above and 50 feet below the base of the deepest usable quality water stratum. This plug shall be evidenced by tagging with tubing or drill pipe. The plug shall be respotted if it has not been properly placed. In addition, a cement plug shall be set across the shoe of the surface casing. This plug shall be a minimum of 100 feet in length and shall extend at least 50 feet above and below the shoe.

(2) When sufficient surface casing has been set to protect all usable quality water strata, a cement plug shall be placed across the shoe of the surface casing. This plug shall be a minimum of 100 feet in length and shall extend at least 50 feet above the shoe and at least 50 feet below the shoe.

(3) If surface casing has been set deeper than 200 feet below the base of the deepest usable quality water stratum, an additional cement plug shall be placed inside the surface casing across the base of the deepest usable quality water stratum. This plug shall be a minimum of 100 feet in length and shall extend at least 50 feet below and 50 feet above the base of the deepest usable quality water stratum.

(4) Plugs shall be set as necessary to separate multiple usable quality water strata by placing the required plug at each depth as determined by the Texas Commission on Environmental Quality or its successor agencies.

(f) Plugging requirements for wells with intermediate casing.

(1) For wells in which the intermediate casing has been cemented through all usable quality water strata and all productive horizons, a cement plug meeting the requirements of subsection (d)(11) of this section shall be placed inside the casing and centered opposite the base of the deepest usable quality water stratum, but extend no less than 50 feet above and below the base of the deepest usable quality water stratum.

(2) For wells in which intermediate casing is not cemented through all usable quality water strata and all productive horizons, and if the casing will not be pulled, the intermediate casing shall be perforated at the required depths to place cement outside of the casing by squeeze cementing through casing perforations.

(3) Additionally, plugs shall be set as necessary to separate multiple usable quality water strata by placing the required plug at each depth as determined by the Texas Commission on Environmental Quality or its successor agencies.

(g) Plugging requirements for wells with production casing.

(1) For wells in which the production casing has been cemented through all usable quality water strata and all productive horizons, a cement plug meeting the requirements of subsection (d)(11) of this section shall be placed inside the casing and centered opposite the base of the deepest usable quality water stratum and across any multi-stage cementing tool. This plug shall be a minimum of 100 feet in length and shall extend at least 50 feet below and 50 feet above the base of the deepest usable quality water stratum.

(2) For wells in which the production casing has not been cemented through all usable quality water strata and all productive horizons and if the casing will not be pulled, the production casing shall be perforated at the required depths to place cement outside of the casing by squeeze cementing through casing perforations.

(3) The district director or the director's delegate may approve a cast iron bridge plug to be placed immediately above each perforated interval, provided at least 20 feet of cement is placed on top of each bridge plug. A bridge plug shall not be set in any well at a depth where the pressure or temperature exceeds the ratings recommended by the bridge plug manufacturer.

(4) Additionally, plugs shall be set as necessary to separate multiple usable quality water strata by placing the required plug at each depth as determined by the Texas Commission on Environmental Quality or its successor agencies.

Tanks		<p>Rule §3.21 Fire Prevention and Swabbing</p> <p>(j) Dikes or fire walls shall not be required except such fire walls must be erected and kept around all permanent oil tanks, or battery of tanks, that are within the corporate limits of any city, town, or village; or where such tanks are closer than 500 feet to any highway or inhabited dwelling or closer than 1,000 feet to any school or church; or where such tanks are so located as to be deemed by the commission to be an objectionable hazard.</p>
Pits	<p>Application for Permit to Maintain and Use a Pit, Form H-11</p>	<p>Rule §3.8 Water Protection</p> <p>(d) Pollution control</p> <p>(2) Prohibited pits. No person may maintain or use any pit for storage of oil or oil products. Except as authorized by paragraph (4) or (7)(C) or (8) of this subsection, no person may maintain or use any pit for storage of oil field fluids, or for storage or disposal of oil and gas wastes, without obtaining a permit to maintain or use the pit. A person is not required to have a permit to use a pit if a receiver has such a permit, if the person complies with the terms of such permit while using the pit, and if the person has permission of the receiver to use the pit. The pits required by this paragraph to be permitted include, but are not limited to, the following types of pits: saltwater disposal pits; emergency saltwater storage pits; collecting pits; skimming pits; brine pits; brine mining pits; drilling fluid storage pits (other than mud circulation pits); drilling fluid disposal pits (other than reserve pits or slush pits); washout pits; and gas plant evaporation/retention pits. If a person maintains or uses a pit for storage of oil field fluids, or for storage or disposal of oil and gas wastes, and the use or maintenance of the pit is neither authorized by paragraph (4) or (7)(C) or (8) of this subsection nor permitted, then the person maintaining or using the pit shall backfill and compact the pit in the time and manner required by the director. Prior to backfilling the pit, the person maintaining or using the pit shall, in a permitted manner or in a manner authorized by paragraph (3) of this subsection, dispose of all oil and gas wastes which are in the pit.</p> <p>(4) Authorized pits. A person may, without a permit, maintain or use reserve pits, mud circulation pits, completion/workover pits, basic sediment pits, flare pits, fresh makeup water pits, fresh mining water pits, and water condensate pits on the following conditions.</p> <p>(A) Reserve pits and mud circulation pits. A person shall not deposit or cause to be deposited into a reserve pit or mud circulation pit any oil field fluids or oil and gas wastes, other than the following:</p> <ul style="list-style-type: none"> (i) drilling fluids, whether fresh water base, saltwater base, or oil base; (ii) drill cuttings, sands, and silts separated from the circulating drilling fluids; (iii) wash water used for cleaning drill pipe and other equipment at the well site; (iv) drill stem test fluids; and (v) blowout preventer test fluids. <p>(B) Completion/workover pits. A person shall not deposit or cause to be deposited into a completion/workover pit any oil field fluids or oil and gas wastes other than spent completion fluids, workover fluid, and the materials cleaned out of the wellbore of a well being completed or worked over.</p> <p>(C) Basic sediment pits. A person shall not deposit or cause to be deposited into a basic sediment pit any oil field fluids or oil and gas wastes other than basic sediment removed from a production vessel or from the bottom of an oil storage tank. Although a person may store basic sediment in a basic sediment pit, a person may not deposit oil or free saltwater in the pit. The total capacity of a basic sediment pit shall not exceed a capacity of 50 barrels. The area covered by a basic sediment pit shall not exceed 250 square feet.</p> <p>(D) Flare pits. A person shall not deposit or cause to be deposited into a flare pit any oil field fluids or oil and gas wastes other than the hydrocarbons designed to go to the flare during upset conditions at the well, tank battery, or gas plant where the pit is located. A person shall not store liquid hydrocarbons in a flare pit for more than 48 hours at a time.</p> <p>(E) Fresh makeup water pits and fresh mining water pits. A person shall not deposit or cause to be deposited into a fresh makeup water pit any oil and gas wastes or any oil field fluids other than water used to make up drilling fluid. A person shall not deposit or cause to be deposited into a fresh mining water pit any oil and gas wastes or any oil field fluids other than water used for solution mining of brine.</p> <p>(F) Water condensate pits. A person shall not deposit or cause to be deposited into a water condensate pit any oil field fluids or oil and gas wastes other than fresh water condensed from natural gas and collected at gas pipeline drips or gas compressor stations.</p> <p>(G) Backfill requirements.</p> <p>(i) A person who maintains or uses a reserve pit, mud circulation pit, fresh makeup water pit, fresh mining water pit, completion/workover pit, basic sediment pit, flare pit, or water condensate pit shall dewater, backfill, and compact the pit according to the following schedule.</p> <p>(I) Reserve pits and mud circulation pits which contain fluids with a chloride concentration of 6,100 mg/liter or less and fresh makeup water pits shall be dewatered, backfilled, and compacted within one year of cessation of drilling operations.</p> <p>(II) Reserve pits and mud circulation pits which contain fluids with a chloride concentration in excess of 6,100 mg/liter shall be dewatered within 30 days and backfilled and compacted within one year of cessation of drilling operations.</p> <p>(III) All completion/workover pits used when completing a well shall be dewatered within 30 days and backfilled and compacted within 120 days of well completion. All completion/workover pits used when working over a well shall be dewatered within 30 days and backfilled and compacted within 120 days of completion of workover operations.</p> <p>(IV) Basic sediment pits, flare pits, fresh mining water pits, and water condensate pits shall be dewatered, backfilled, and compacted within 120 days of final cessation of use of the pits.</p> <p>(V) If a person constructs a sectioned reserve pit, each section of the pit shall be considered a separate pit for determining when a particular section should be dewatered.</p> <p>(ii) A person who maintains or uses a reserve pit, mud circulation pit, fresh makeup water pit, or completion/workover pit shall remain responsible for dewatering, backfilling, and compacting the pit within the time prescribed by clause (i) of this subparagraph, even if the time allowed for backfilling the pit extends beyond the expiration date or transfer date of the lease covering the land where the pit is located.</p> <p>(iii) The director may require that a person who uses or maintains a reserve pit, mud circulation pit, fresh makeup water pit, fresh mining water pit, completion/workover pit, basic sediment pit, flare pit, or water condensate pit backfill the pit sooner than the time prescribed by clause (i) of this subparagraph if the director determines that oil and gas wastes or oil field fluids are likely to escape from the pit or that the pit is being used for improper storage or disposal of oil and gas wastes or oil field fluids.</p> <p>(iv) Prior to backfilling any reserve pit, mud circulation pit, completion/workover pit, basic sediment pit, flare pit, or water condensate pit whose use or maintenance is authorized by this paragraph, the person maintaining or using the pit shall, in a permitted manner or in a manner</p>

		<p>authorized by paragraph (3) of this subsection, dispose of all oil and gas wastes which are in the pit.</p> <p>(6) Permits.</p> <p>(B) Application. An application for a permit to maintain or use a pit or to dispose of oil and gas wastes shall be filed with the commission in Austin. The applicant shall mail or deliver a copy of the application to the appropriate district office on the same day the original application is mailed or delivered to the commission in Austin. A permit application shall be considered filed with the commission on the date it is received by the commission in Austin. When a commission-prescribed application form exists, an applicant shall make application on the prescribed form according to the instructions on such form. The director may require the applicant to provide the commission with engineering, geological, or other information which the director deems necessary to show that issuance of the permit will not result in the waste of oil, gas, or geothermal resources or the pollution of surface or subsurface water.</p>
<p>Exempt Waste Handling</p>		<p>Rule §3.8 Water Protection</p> <p>(d) Pollution control.</p> <p>(1) Prohibited disposal methods. Except for those disposal methods authorized for certain wastes by paragraph (3) of this subsection, subsection (e) of this section, or §3.98 of this title (relating to Standards for Management of Hazardous Oil and Gas Waste), or disposal methods required to be permitted pursuant to §3.9 of this title (relating to Disposal Wells) (Rule 9) or §3.46 of this title (relating to Fluid Injection into Productive Reservoirs) (Rule 46), no person may dispose of any oil and gas wastes by any method without obtaining a permit to dispose of such wastes. The disposal methods prohibited by this paragraph include, but are not limited to, the unpermitted discharge of oil field brines, geothermal resource waters, or other mineralized waters, or drilling fluids into any watercourse or drainageway, including any drainage</p> <p>(3) Authorized disposal methods.</p> <p>(A) Fresh water condensate. A person may, without a permit, dispose of fresh water which has been condensed from natural gas and collected at gas pipeline drips or gas compressor stations, provided the disposal is by a method other than disposal into surface water of the state.</p> <p>(B) Inert wastes. A person may, without a permit, dispose of inert and essentially insoluble oil and gas wastes including, but not limited to, concrete, glass, wood, and wire, provided the disposal is by a method other than disposal into surface water of the state.</p> <p>(C) Low chloride drilling fluid. A person may, without a permit, dispose of the following oil and gas wastes by landfarming, provided the wastes are disposed of on the same lease where they are generated, and provided the person has the written permission of the surface owner of the tract where landfarming will occur: water base drilling fluids with a chloride concentration of 3,000 milligrams per liter (mg/liter) or less; drill cuttings, sands, and silts obtained while using water base drilling fluids with a chloride concentration of 3,000 mg/liter or less; and wash water used for cleaning drill pipe and other equipment at the well site.</p> <p>(D) Other drilling fluid. A person may, without a permit, dispose of the following oil and gas wastes by burial, provided the wastes are disposed of at the same well site where they are generated: water base drilling fluid which had a chloride concentration in excess of 3,000 mg/liter but which have been dewatered; drill cuttings, sands, and silts obtained while using oil base drilling fluids or water base drilling fluids with a chloride concentration in excess of 3,000 mg/liter; and those drilling fluids and wastes allowed to be landfarmed without a permit.</p> <p>(E) Completion/workover pit wastes. A person may, without a permit, dispose of the following oil and gas wastes by burial in a completion/workover pit, provided the wastes have been dewatered, and provided the wastes are disposed of at the same well site where they are generated: spent completion fluids, workover fluids, and the materials cleaned out of the wellbore of a well being completed or worked over.</p> <p>(F) Effect on backfilling. A person's choice to dispose of a waste by methods authorized by this paragraph shall not extend the time allowed for backfilling any reserve pit, mud circulation pit, or completion/workover pit whose use or maintenance is authorized by paragraph (4) of this subsection.</p> <p>Rule §3.57 Reclaiming Tank Bottoms, Other Hydrocarbon Wastes and Other Waste Materials</p> <p>(c) Permitting process.</p> <p>(1) Removal of tank bottoms or other hydrocarbon wastes from any producing lease tank, pipeline storage tank, or other production facility, for reclaiming by any person, is prohibited unless such person has either obtained a permit to operate a reclamation plant, or is an authorized person. Applicants for a reclamation plant operating permit shall file the appropriate form with the commission in Austin.</p>
<p>Spills</p>	<p>Crude Oil, Gas Well Liquids or Associated Loss Report, Form H-8</p> <p>Interim H-8 Crude Oil Spill Sheet, Form H-8 Interim</p>	<p>Rule §3.20 Notification of Fire Breaks, Leaks or Blow-outs</p> <p>(a) General requirements.</p> <p>(1) Operators shall give immediate notice of a fire, leak, spill, or break to the appropriate commission district office by telephone or telegraph. Such notice shall be followed by a letter giving the full description of the event, and it shall include the volume of crude oil, gas, geothermal resources, other well liquids, or associated products lost.</p> <p>(2) All operators of any oil wells, gas wells, geothermal wells, pipelines receiving tanks, storage tanks, or receiving and storage receptacles into which crude oil, gas, or geothermal resources are produced, received, stored, or through which oil, gas, or geothermal resources are piped or transported, shall immediately notify the commission by letter, giving full details concerning all fires which occur at oil wells, gas wells, geothermal wells, tanks, or receptacles owned, operated, or controlled by them or on their property, and all such persons shall immediately report all tanks or receptacles struck by lightning and any other fire which destroys crude oil, natural gas, or geothermal resources, or any of them, and shall immediately report by letter any breaks or leaks in or from tanks or other receptacles and pipelines from which oil, gas, or geothermal resources are escaping or have escaped. In all such reports of fires, breaks, leaks, or escapes, or other accidents of this nature, the location of the well, tank, receptacle, or line break shall be given by county, survey, and property, so that the exact location thereof can be readily located on the ground. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported and shall detail the quantity (estimated, if no accurate measurement can be obtained, in which case the report shall show that the same is an estimate) of oil, gas, or geothermal resources, lost, destroyed, or permitted to escape. In case any tank or receptacle is permitted to run over, the escape thus occurring shall be reported as in the case of a leak. (Reference Order Number 20-60,399, effective 9-24-70.)</p> <p>Rule §3.91 Cleanup of Soil Contaminated by a Crude Oil Spill</p> <p>(c) Requirements for cleanup.</p>

		<p>(1) Removal of free oil. To minimize the depth of oil penetration, all free oil must be removed immediately for reclamation or disposal.</p> <p>(2) Delineation. Once all free oil has been removed, the area of contamination must be immediately delineated, both vertically and horizontally. For purposes of this paragraph, the area of contamination means the affected area with more than 1.0% by weight total petroleum hydrocarbons.</p> <p>(3) Excavation. At a minimum, all soil containing over 1.0% by weight total petroleum hydrocarbons must be brought to the surface for disposal or remediation.</p> <p>(4) Prevention of stormwater contamination. To prevent stormwater contamination, soil excavated from the spill site containing over 5.0% by weight total petroleum hydrocarbons must immediately be:</p> <ul style="list-style-type: none"> (A) mixed in place to 5.0% by weight or less total petroleum hydrocarbons; or (B) removed to an approved disposal site; or (C) removed to a secure interim storage location for future remediation or disposal. The secure interim storage location may be on site or off site. The storage location must be designed to prevent pollution from contaminated stormwater runoff. Placing oily soil on plastic and covering it with plastic is one acceptable means to prevent stormwater contamination; however, other methods may be used if adequate to prevent pollution from stormwater runoff. <p>(d) Remediation of soil.</p> <p>(1) Final cleanup level. A final cleanup level of 1.0% by weight total petroleum hydrocarbons must be achieved as soon as technically feasible, but not later than one year after the spill incident. The operator may select any technically sound method that achieves the final result.</p> <p>(2) Requirements for bioremediation. If on-site bioremediation or enhanced bioremediation is chosen as the remediation method, the soil to be bioremediated must be mixed with ambient or other soil to achieve a uniform mixture that is no more than 18 inches in depth and that contains no more than 5.0% by weight total petroleum hydrocarbons.</p> <p>(e) Reporting requirements.</p> <p>(1) Crude oil spills over five barrels. For each spill exceeding five barrels of crude oil, the responsible operator must comply with the notification and reporting requirements of §3.20 of this title (relating to Notification of Fire Breaks, Leaks, or Blow-outs) and submit a report on a Form H-8 to the appropriate district office. The following information must be included:</p> <ul style="list-style-type: none"> (A) area (square feet), maximum depth (feet), and volume (cubic yards) of soil contaminated with greater than 1.0% by weight total petroleum hydrocarbons; (B) a signed statement that all soil containing over 1.0% by weight total petroleum hydrocarbons was brought to the surface for remediation or disposal; (C) a signed statement that all soil containing over 5.0% by weight total petroleum hydrocarbons has been mixed in place to 5.0% by weight or less total petroleum hydrocarbons or has been removed to an approved disposal site or to a secure interim storage location; (D) a detailed description of the disposal or remediation method used or planned to be used for cleanup of the site; (E) the estimated date of completion of site cleanup. <p>(2) Crude oil spills over 25 barrels. For each spill exceeding 25 barrels of crude oil, in addition to the report required in paragraph (1) of this subsection, the operator must submit to the appropriate district office a final report upon completion of the cleanup of the site. Analyses of samples representative of the spill site must be submitted to verify that the final cleanup concentration has been achieved.</p> <p>(3) Crude oil spills of five barrels or less. Spills into the soil of five barrels or less of crude oil must be remediated to these standards, but are not required to be reported to the commission. All spills of crude oil into water must be reported to the commission.</p> <p>(f) Alternatives. Alternatives to the standards and procedures of this section may be approved by the commission for good cause, such as new technology, if the operator has demonstrated to the commission's satisfaction that the alternatives provide equal or greater protection of the environment. A proposed alternative must be submitted in writing and approved by the commission.</p>
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Utah		
Topic	Associated Forms	Regulations: http://oilgas.ogm.utah.gov/Rules/Rules.htm
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Form 3	<p>Utah Administrative Code R649-3-4. Permitting of Wells to be Drilled, Deepened or Plugged-Back.</p> <ol style="list-style-type: none"> 1. Prior to the commencement of drilling, deepening or plugging back of any well, exploratory drilling such as core holes and stratigraphic test holes, or any surface disturbance associated with such activity, the operator shall submit Form 3, Application for Permit to Drill, Deepen, or Plug Back and obtain approval. Approval shall be given by the division if it appears that the contemplated location and operations are not in violation of any rule or order of the board for drilling a well. <p>R649-3-6. Drilling Operations.</p> <ol style="list-style-type: none"> 1. Drilling operations shall be conducted according to the drilling program submitted on the original APD and as approved by the division. Any change of plans to the original drilling program shall be submitted to the division by using Form 9, Sundry Notices and Reports on Wells and shall receive division approval prior to implementation. A change of plans necessary because of emergency conditions may be implemented without division approval. The operator shall provide the division with verbal notice of the emergency change within 24 hours and written notice within five days.
Well Treatment, Stimulation and Fracturing	Sundry Notices and Reports on Wells, Form 9	No specific regulation located
Well Construction	Well Completion or Recompletion Report and Log, Form 8	<p>R649-3-8. Casing Program.</p> <ol style="list-style-type: none"> 1. The method of cementing casing in the hole shall be by pump and plug method, displacement method, or other method approved by the division. 2. When drilling in wildcat territory or in any field where high pressures are probable, the conductor and surface strings of casing must be cemented throughout their lengths, unless another procedure is authorized or prescribed by the division, and all subsequent strings of casing must be securely anchored. 3. In areas where the pressures and formations to be encountered during drilling are known, sufficient surface casing shall be run to: <ol style="list-style-type: none"> 3.1. Reach a depth below all known or reasonably estimated, utilizable, domestic, fresh water levels. 3.2. Prevent blowouts or uncontrolled flows. 4. The casing program adopted must be planned to protect any potential oil or gas horizons penetrated during drilling from infiltration of waters from other sources and to prevent the migration of oil, gas, or water from one horizon to another. <p>R649-3-9. Protection of Upper Productive Strata.</p> <ol style="list-style-type: none"> 1. No well shall be deepened for the purpose of producing oil or gas from a lower stratum until all upper productive strata are protected, either permanently by casing and cementing or temporarily through the use of tubing and packer, to the satisfaction of the division. <p>R649-3-13. Casing Tests.</p> <ol style="list-style-type: none"> 1. In order to determine the integrity of the casing string set in the well, the operator shall, unless otherwise requested by the division, perform a pressure test of the casing to the pressures specified under R649-3- 7.4 before drilling out of any casing string, suspending drilling operations, or completing the well.
Temporary Abandonment/ Shut- in Status	Sundry Notices and Reports on Wells, Form 9	<p>R649-3-36. Shut-in and Temporarily Abandoned Wells.</p> <ol style="list-style-type: none"> 1. Wells may be initially shut-in or temporarily abandoned for a period of twelve (12) consecutive months. If a well is to be shut-in or temporarily abandoned for a period exceeding twelve (12) consecutive months, the operator shall file a Sundry Notice providing the following information: <ol style="list-style-type: none"> 1.1. Reasons for shut-in or temporarily abandonment of the well, 1.2. The length of time the well is expected to be shut-in or temporarily abandoned, and 1.3. An explanation and supporting data, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment. 2. After review the Division will either approve the continued shut-in or temporarily abandoned status or require remedial action to be taken to establish and maintain the well's integrity. 3. After five (5) years of nonactivity or nonproductivity, the well shall be plugged in accordance with R649-3-24, unless approval for extended shut-in time is given by the Division upon a showing of good cause by the operator. 4. If after a five (5) year period the well is ordered plugged by the Division, and the operator does not comply, the operator shall forfeit the drilling and reclamation bond and the well shall be properly plugged and abandoned under the direction of the Division.
Well Plugging	Sundry Notices and Reports on Wells, Form 9	<p>R649-3-24. Plugging and Abandonment of Wells.</p> <ol style="list-style-type: none"> 1. Before operations are commenced to plug and abandon any well the owner or operator shall submit a notice of intent to plug and abandon to the division for

		<p>its approval.</p> <ol style="list-style-type: none"> 1.1. The notice shall be submitted on Form DOGM-9, Sundry Notice and Report on Wells. 3.1. Unless a different method and procedure is approved by the division, the method and procedure for plugging the well shall be as follows: <ol style="list-style-type: none"> 3.2. The bottom of the hole shall be filled to, or a bridge shall be placed at, the top of each producing formation open to the well bore, and a cement plug not less than 100 feet in length shall be placed immediately above each producing formation open to the well bore. 3.3. A solid cement plug shall be placed from 50 feet below a fresh water zone to 50 feet above the fresh water zone, or a 100 foot cement plug shall be centered across the base of the fresh water zone and a 100 foot plug shall be centered across the top of the fresh water zone. 3.4. At least ten sacks of cement shall be placed at the surface in a manner completely plugging the entire hole. If more than one string of casing remains at the surface, all annuli shall be so cemented. 3.5. The interval between plugs shall be filled with noncorrosive fluid of adequate density to prevent migration of formation water into or through the well bore. 3.6. The hole shall be plugged up to the base of the surface string with noncorrosive fluid of adequate density to prevent migration of formation water into or through the well bore, at which point a plug of not less than 50 feet of cement shall be placed. 3.7. Any perforated interval shall be plugged with cement and any open hole porosity zone shall be adequately isolated to prevent migration of fluids. 3.8. A cement plug not less than 100 feet in length shall be centered across the casing stub if any casing is cut and pulled, a second plug of the same length shall be centered across the casing shoe of the next larger casing. 4. An alternative method of plugging, required under a federal or Indian lease, will be accepted by the division.
Tanks		<p>R649-3-15. Pollution and Surface Damage Control.</p> <ol style="list-style-type: none"> 1. The operator shall take all reasonable precautions to avoid polluting lands, streams, reservoirs, natural drainage ways, and underground water. <ol style="list-style-type: none"> 1.2.4. Maintain tanks in a workmanlike manner that will preclude leakage and provide for all applicable safety measures, and construct berms of sufficient height and width to contain the quantity of the largest tank at the storage facility. <ol style="list-style-type: none"> 1.2.4.1. The use of crude or produced water storage tanks without tops is strictly prohibited except during well testing operations.
Pits		<p>R649-3-16. Reserve Pits and Other On-site Pits.</p> <ol style="list-style-type: none"> 1. Small onsite oil field pits including, but not limited to, reserve pits, emergency pits, workover and completion pits, storage pits, pipeline drip pits, and sumps shall be located and constructed in such a manner as to contain fluids and not cause pollution of waters and soils. They shall be located and constructed according to the Division guidelines for onsite pits. See Ranking Criteria for Reserve and Onsite Pit Liner Requirements, on the Oil, Gas and Mining web page. 2. Reserve pit location and construction requirements including liner requirements will be discussed at the predrill site evaluation. Special stipulations concerning the reserve pit will be included as part of the Division's approval to drill. 3. Following drilling and completion of the well the reserve pit shall be closed within one year, unless permission is granted by the Division for a longer period. 4. Pit contents shall meet the Division's Cleanup Levels (guidance document for numeric clean-up levels) or background levels prior to burial. 5. The contents may require treatment to reduce mobility and/or toxicity in order to meet cleanup levels. 6. The alternative to meeting cleanup levels would be transporting of material to an appropriate disposal facility.
Exempt Waste Handling		<p>R649-3-15. Pollution and Surface Damage Control.</p> <ol style="list-style-type: none"> 1. The operator shall take all reasonable precautions to avoid polluting lands, streams, reservoirs, natural drainage ways, and underground water. <ol style="list-style-type: none"> 1.2.6. Waste reduction and recycling should be practiced in order to help reduce disposal volumes. 1.2.7. Produced water, tank bottoms and other miscellaneous waste should be disposed of in a manner that is in compliance with these rules and other state, federal, or local regulations or ordinances.
Spills	Incident Report Form	<p>R649-3-15. Pollution and Surface Damage Control.</p> <ol style="list-style-type: none"> 1. The operator shall take all reasonable precautions to avoid polluting lands, streams, reservoirs, natural drainage ways, and underground water. <ol style="list-style-type: none"> 1.2.5. Catch leaks and drips, contain spills, and cleanup promptly. <p>R649-3-32. Reporting of Undesirable Events.</p> <ol style="list-style-type: none"> 1. The division shall be notified of all fires, leaks, breaks, spills, blowouts, and other undesirable events occurring at any oil or gas drilling, producing, or transportation facility, or at any injection or disposal facility.

Virginia		
Topic	Associated Forms	Regulations: http://leg1.state.va.us/000/reg/TOC04025.HTM#C0150
Permitting	<p>Application for New Permit, Permit Modification or Transfer of Permit Rights Form DGO-GO-1</p> <p>Notice of Application for Permit, Form DGW-GO-4</p> <p>Drilling Report, Form DGO-GO-14</p>	<p>Virginia Gas and Oil Regulation 4 VAC 25-150-80. Application for a permit.</p> <p>A. Applicability. 1. Persons required in § 45.1-361.29 of the Code of Virginia to obtain a permit or permit modification shall apply to the division on the forms prescribed by the director. All lands on which gas, oil or geophysical operations are to be conducted shall be included in a permit application.</p> <p>4 VAC 25-150-340. Drilling fluids.</p> <p>A. Operations plan requirements. Applicants for a permit shall provide, prior to commencing drilling, documentation that the water meets the requirements of subsection B of this section, and a general description of the additives and muds to be used in all stages of drilling. Providing that the requirement in subsection C of this section is met, variations necessary because of field conditions may be made with prior approval of the director and shall be documented in the driller's log.</p> <p>C. Drilling muds. No permittee may use an oil-based drilling fluid or other fluid which has the potential to cause acute or chronic adverse health effects on living organisms unless a variance has been approved by the director. Permittees must explain the need to use such materials and provide the material data safety sheets. In reviewing the request for the variance, the director shall consider the concentration of the material, the measures to be taken to control the risks, and the need to use the material. Permittees shall also identify what actions will be taken to ensure use of the additives will not cause a lessening of groundwater quality.</p>
Well Treatment, Stimulation and Fracturing	<p>Drilling Report, Form DGO-GO-14</p> <p>Completion Report, Form DGO-GO-15</p>	<p>No specific regulation located</p>
Well Construction	<p>Drilling Report, Form DGO-GO-14</p>	<p>4 VAC 25-150-530. Casing requirements for conventional gas or oil wells.</p> <p>A. Water-protection string. 1. Except as provided in subdivision A 5 of this section, the permittee shall set a water-protection string to a point at least 300 feet below the surface or 50 feet below the deepest known groundwater horizon, whichever is deeper, circulated and cemented in to the surface. If the cement does not return to the surface, every reasonable attempt shall be made to fill the annular space by introducing cement from the surface. 2. The operator shall test or require the cementing company to test the cement mixing water for pH and temperature prior to mixing the cement and to record the results on the cementing ticket. 3. After the cement is placed, the operator shall wait a minimum of eight hours and allow the cement to achieve a calculated compressive strength of 500 psi before drilling, unless the director approves a shorter period of time. The wait-on-cement (WOC) time shall be recorded within the records kept at the drilling rig while drilling is taking place. 4. When requested by the director, the operator shall submit copies of cement tickets or other documents that indicate the above specifications have been followed. 5. A coal-protection string may also serve as a water-protection string.</p> <p>4 VAC 25-150-610. Casing requirements for coalbed methane gas wells.</p> <p>A. Water-protection string. 1. Except as provided in subdivision A 5 of this section, the permittee shall set a water-protection string set to a point at least 300 feet below the surface or 50 feet below the lowest groundwater horizon, whichever is deeper, circulated and cemented to the surface. If cement does not return to the surface, every reasonable effort shall be made to fill the annular space by introducing cement from the surface. 2. The operator shall test or require the cementing company to test the cement mixing water for pH and temperature prior to mixing the cement and to record the results on the cementing ticket. 3. After the cement is placed, the operator shall wait a minimum of eight hours and allow the cement to achieve a calculated compressive strength of 500 psi before drilling, unless the director approves a shorter period of time. The wait-on-cement (WOC) time shall be recorded within the records kept at the drilling rig while drilling is taking place. 4. When requested by the director, the operator shall submit copies of cement tickets or other documents that indicate the above specifications have been followed. 5. A coal-protection string may also serve as a water-protection string.</p> <p>G. Production casing.</p>

		<p>1. Unless otherwise granted in a variance from the director:</p> <p>a. For coalbed methane gas wells with cased completions and cased/open hole completions, production casing shall be set and cemented from the bottom of the casing to the surface or to a point not less than 50 feet into the lowest coal-protection or water-protection string or strings which are cemented to the surface.</p> <p>b. For coalbed methane gas wells with open hole completions, the base of the casing shall be set to not more than 100 feet above the uppermost coalbed which is to be completed open hole. The casing shall be cemented from the bottom of the casing to the surface or to a point not less than 50 feet into the lowest coal-protection or water-protection string or strings which are cemented to the surface.</p> <p>2. A coal-protection string may also serve as production casing.</p>
Temporary Abandonment/ Shut- in Status		<p>4 VAC 25-150-390. Shut-in wells.</p> <p>A. If a well is shut-in or otherwise not produced for a period of 12 consecutive months, the permittee shall measure the shut-in pressure on the production string or strings. If the well is producing on the backside or otherwise through the casing, the permittee shall measure the shut-in pressure on the annular space.</p> <p>B. A report of the pressure measurements shall be maintained by the permittee for a minimum of three years and be submitted to the director upon request.</p>
Well Plugging	Plugging Affidavit, Form DGO-GO-18	<p>4 VAC 25-150-435. Plugging for abandonment or plug-back operations.</p> <p>A. Permit requirements; variances.</p> <p>1. Plugging operations shall not commence until a detailed plugging plan has been submitted to and approved by the director. A permit modification is required if the well was not previously permitted for plugging.</p> <p>B. Plugging in open hole. When a well or section of a well without casing is to be plugged or plugged back, it shall be sealed and filled as prescribed in this section.</p> <p>1. At a point approximately 20 feet above each oil, gas or water-bearing stratum in open hole, a plug shall be placed so as to completely seal the wellbore. Whenever two or more gas or oil stratum are not widely separated, they may be treated as a single stratum and plugged accordingly. Cement plugs shall be at least 100 feet in length. At least 20 feet of cement shall be placed on top of open hole bridge plugs.</p> <p>2. At each coal seam, a cement plug shall be placed from not less than 50 feet below the base of the coal to not less than 50 feet above the top of the coal. Whenever two or more coal seams are not widely separated, they may be treated as a single seam and plugged accordingly. This subsection applies only to coal seams which occur at a depth compatible with mining. Coal-bearing sections at greater depths may be plugged in accordance with subdivision B 1 of this section.</p> <p>3. If a source of groundwater capable of having a beneficial use is exposed in open hole below surface (water-protection) casing, a cement plug at least 100 feet in length shall be placed below the base of the lowest such groundwater zone.</p> <p>4. A cement plug of a minimum length of 100 feet shall be placed across the shoe of the surface (water-protection) casing. The plug shall be placed so as to have approximately equal lengths in open hole and inside casing. If the well is without surface casing, a continuous cement plug shall be placed from at least 50 feet below the base of the lowest known aquifer or 300 feet depth, whichever is deeper, to the surface.</p> <p>5. All intervals below and between plugs shall be filled with drilling mud, bentonite gel, or other appropriately weighted materials approved by the director.</p> <p>C. Plugging in cased hole. When a cased hole or section of a cased hole is to be plugged or plugged back, it shall be sealed and filled as prescribed in this section.</p> <p>1. All perforated intervals shall be either squeeze-cemented or otherwise isolated from the wellbore by suitable plugs placed across or immediately above the perforated interval. Cement plugs placed across perforations shall extend to at least 50 feet above the top perforations. A cement plug shall be placed to at least 50 feet above squeezed perforations. Cement plugs placed entirely above perforations shall be at least 100 feet in length. At least 20 feet of cement shall be placed on top of bridge plugs, cement retainers, or other tools left in the hole.</p> <p>2. At each coal seam which is behind a properly installed and cemented coal-protection casing, a cement plug shall be placed from not less than 50 feet below the base of the coal to not less than 50 feet above the top of the coal. Whenever two or more coal seams are not widely separated, they may be treated as a single seam and plugged accordingly.</p> <p>3. If casing is not to be pulled, and there is uncemented annulus behind the pipe, plugging shall be as follows:</p> <p>a. Each oil, gas or water-bearing stratum present behind the pipe in an uncemented annulus must be isolated by perforating the casing at each zone and squeezing cement up into the zone, or circulating cement up the annulus such that a cement fill-up of not less than 100 feet is achieved. When squeezing or circulating the annulus, a cement plug of at least 50 feet shall be placed inside the casing above the perforations.</p> <p>b. If the well penetrates a minable coal-bearing section, and no coal-protection casing was used, and if surface (water-protection) casing is either absent or not properly placed and cemented to surface, the production casing shall be converted to a coal-protection string by perforating at least 50 feet below the base of the lowest coal stratum, and circulating cement in the annulus from that point to the surface.</p> <p>c. At each coal seam in a minable coal-bearing section which is protected by a properly installed and cemented coal-protection string, a cement plug shall be placed in casing from not less than 50 feet below the base of the coal to not less than 50 feet above the top of the coal. If there is uncemented annulus between the inner casing and the coal-protection string, the casing shall be perforated to allow cement to be circulated over the prescribed interval, and a plug of equal length shall be placed inside the inner casing.</p> <p>d. If a fresh water aquifer is exposed to the wellbore in an uncemented annulus, it shall be isolated by perforating the casing at least 100 feet below the aquifer and squeezing cement into the annulus or circulating it up the annulus so that a fill-up of not less than 100 feet is achieved. When squeezing or circulating cement, a cement plug of at least 100 feet shall be placed inside the casing above the perforation.</p> <p>e. At a point no less than 50 feet below the shoe of surface (water-protection) string, the casing shall be perforated and cement circulated up the annulus to a minimum fill-up of 100 feet. A plug of equal length shall be placed inside the casing.</p> <p>f. From a point not less than 50 feet below surface, a cement plug shall be installed which reaches the surface. If any uncemented annuli are present at the surface, the voids should be filled and sealed to the greatest extent possible by introducing cement from the surface.</p> <p>g. All intervals below and between plugs shall be filled with drilling mud, bentonite gel, or other appropriately weighted materials approved by the director.</p> <p>4. If casing is to be pulled, plugging shall be as follows:</p> <p>a. All perforated intervals shall be isolated as described in subdivision C 1 of this section.</p>

		<p>b. Casing stubs shall be isolated by placing a plug across or above the cut-off point. Cement plugs shall be at least 100 feet in length and shall be placed so as to have approximately equal lengths inside and above the remnant casing. Permanent bridge plugs may be placed above the stub and shall be capped by at least 20 feet of cement.</p> <p>D. Plugging operations involving uncemented water-protection casing or coal-protection casing.</p> <p>1. If the annulus of the largest casing present across a minable coal-bearing section is not cemented across that section, then one of the two procedures listed below must be followed:</p> <p>a. The casing must be perforated at least 50 feet below the lowest coal seam, and cement circulated in the annulus to the surface (if water-protection casing is absent or not properly placed and cemented to surface), or to at least 100 feet above the highest coal (if the casing is to be partially pulled to facilitate plugging operations in the fresh water zone). Plugging shall proceed according to cased hole requirements; or</p> <p>b. The casing shall be pulled from the well, and plugging shall proceed according to open hole requirements.</p> <p>2. If the annulus of the largest casing present across the fresh-water-bearing section is not cemented across that section, then one of the two procedures listed below must be followed:</p> <p>a. The casing shall be perforated below the lowest known fresh-water zone or at a minimum depth of 300 feet. Cement shall be circulated in the annulus to the surface. Plugging shall proceed according to cased hole requirements; or</p> <p>b. The casing shall be pulled from the well, and a continuous cement plug shall be placed from below the base of the lowest known fresh-water aquifer exposed to the wellbore, or 300-foot depth, whichever is deeper, to the surface.</p> <p>E. Unfillable cavities. When an unfillable cavity such as a cavern, mine void, blast stimulation zone or gob completion is encountered, the section shall be plugged as follows:</p> <p>1. If the stratum with the unfillable cavities is the lowest gas or oil stratum in the well, a plug shall be placed at the nearest suitable point not less than 20 feet above the stratum. Cement plugs shall be at least 100 feet long, and at least 20 feet of cement shall be placed on top of bridge plugs.</p> <p>2. If the stratum with unfillable cavities is above the lowest gas or oil stratum, a plug shall be placed below the stratum and shall extend to within 20 feet of its base. A plug shall also be placed above the stratum as described in subdivision E 1 of this section.</p>
Tanks		<p>4 VAC 25-150-310. Tanks.</p> <p>A. All tanks installed on or after September 25, 1991, shall be designed and constructed to contain the fluids to be stored in the tanks and prevent unauthorized discharge of fluids.</p> <p>B. All tanks shall be maintained in good condition and repaired as needed to ensure the structural integrity of the tank.</p> <p>C. Every permanent tank or battery of tanks shall be surrounded by a containment dike or firewall with a capacity of 1½ times the volume of the single tank or largest tank in a battery of tanks.</p> <p>D. Dikes and firewalls shall be maintained in good condition, and the reservoir shall be kept free from brush, water, oil or other fluids.</p> <p>E. Permittees shall inspect the structural integrity of tanks and tank installations, at a minimum, annually. The report of the annual inspection shall be maintained by the permittee for a minimum of three years and be submitted to the director upon request.</p>
Pits	Application for Disposal of Pit or Produced Fluids, Form DGO-GO-16	<p>4 VAC 25-150-300. Pits.</p> <p>A. General requirements.</p> <p>1. Pits are to be temporary in nature and are to be reclaimed when the operations using the pit are complete.</p> <p>2. Pits may not be used as erosion and sediment control structures or stormwater management structures, and surface drainage may not be directed into a pit.</p> <p>3. Pits shall have a properly installed and maintained liner or liners made of 10mil or thicker high-density polyethylene or its equivalent.</p> <p>B. Technical requirements.</p> <p>1. Pits shall be constructed of sufficient size and shape to contain all fluids and maintain a two-foot freeboard.</p> <p>2. Pits shall be lined in accordance with the requirements for liners in subdivision A 3 of this section. If solids are not to be disposed of in the pit, the permittee may request a variance to the liner specifications.</p> <p>C. Operational requirements.</p> <p>1. The integrity of lined pits must be maintained until the pits are reclaimed or otherwise closed. Upon failure of the lining or pit, the operation shall be shut down until the liner and pit are repaired or rebuilt. The permittee shall notify the division, by the quickest available means, of any pit leak.</p> <p>2. Motor oil and, to the extent practicable, crude oil shall be kept out of the pit. Oil shall be collected and disposed of properly. Litter and other solid waste shall be collected and disposed of properly and not thrown into the pit.</p> <p>3. At the conclusion of drilling and completion operations or after a dry hole, well or corehole has been plugged, the pit shall be drained in a controlled manner and the fluids disposed of in accordance with 4 VAC 25-150-420. If the pit is to be used for disposal of solids, then the standards of 4 VAC 25-150-430 shall be met.</p>
Exempt Waste Handling		<p>4 VAC 25-150-420. Disposal of pit and produced fluids.</p> <p>A. Applicability. All fluids from a well, pipeline or corehole shall be handled in a properly constructed pit, tank or other type of container approved by the director. A permittee shall not dispose of fluids from a well, pipeline or corehole until the director has approved the permittee's plan for permanent disposal of the fluids. Temporary storage of pit or produced fluids is allowed with the approval of the director. Other fluids shall be disposed of in accordance with the operations plan approved by the director.</p> <p>B. Application and plan. The permittee shall submit an application for either on-site or off-site permanent disposal of fluids on a form prescribed by the director. Maps and a narrative describing the method to be used for permanent disposal of fluids must accompany the application if the permittee proposes to land apply any fluids on the permitted site. The application, maps, and narrative shall become part of the permittee's operations plan.</p> <p>C. Removal of free fluids. Fluids shall be removed from the pit to the extent practical so as to leave no free fluids. In the event that there are no free fluids for removal, the permittee shall report this on the form provided by the director.</p> <p>D. On-site disposal. The following standards for on-site land application of fluids shall be met:</p> <p>1. Fluids to be land-applied shall meet the parameters listed in the Department of Environmental Quality's "Water Quality Criteria for Groundwater" (9</p>

		<p>VAC 25-260-230 et seq.).</p> <ol style="list-style-type: none"> 2. Land application of fluids shall be confined to the permitted area. 3. Fluids shall be applied in a manner which will not cause erosion or runoff. The permittee shall take into account site conditions such as slope, soils and vegetation when determining the rate and volume of land application on each site. As part of the application narrative, the permittee shall show the calculations used to determine the maximum rate of application for each site. 4. Fluid application shall not be conducted when the ground is saturated, snow-covered or frozen. 5. The following buffer zones shall be maintained unless a variance has been granted by the director: <ol style="list-style-type: none"> a. Fluid shall not be applied closer than 25 feet from highways or property lines not included in the acreage shown in the permit. b. Fluid shall not be applied closer than 50 feet from surface watercourses, wetlands, natural rock outcrops, or sinkholes. c. Fluid shall not be applied closer than 100 feet from water supply wells or springs. 6. The permittee shall monitor vegetation for two years after the last fluid has been applied to a site. If any adverse effects are found, the permittee shall report the adverse effects in writing to the division. 7. The director may require monitoring of groundwater quality on sites used for land application of fluids to determine if the groundwater has been degraded. <p>E. Off-site disposal of fluids.</p> <ol style="list-style-type: none"> 1. Each permittee using an off-site facility for disposal of fluids shall submit: <ol style="list-style-type: none"> a. A copy of a valid permit for the disposal facility to be used; and b. Documentation that the facility will accept the fluids. 2. Each permittee using an off-site facility for disposal of fluids shall use a waste-tracking system to document the movement of fluids off of a permitted site to their final disposition. Records compiled by this system shall be available for inspection on request.
<p>Spills</p>		<p>4 VAC 25-150-380. Accidents, spills and unpermitted discharges.</p> <p>A. Accidents. A permittee shall, by the quickest available means, notify the director in the event of any fire, blowout, pit failure, hydrogen sulfide release, unanticipated loss of drilling fluids, or other accident resulting in an actual or potential imminent danger to the environment, public safety or welfare. The permittee shall take immediate action to abate the actual or potential danger. The permittee shall submit a written report within seven days of the incident containing:</p> <ol style="list-style-type: none"> 1. A description of the incident and its cause; 2. The date, time and duration of the incident; 3. A description of the steps that have been taken to date; and 4. A description of the steps planned to be taken to prevent a recurrence of the incident. <p>B. On-site spills.</p> <ol style="list-style-type: none"> 1. A permittee shall take all reasonable steps to prevent, minimize, or correct any spill or discharge of fluids on a permitted site which has a reasonable likelihood of adversely affecting human health or the environment. All actions shall be consistent with the requirements of an abatement plan, if any has been set, in a notice of violation or closure, emergency or other order issued by the director. 2. A permittee shall orally report on-site spills or unpermitted discharges of fluids which are not required to be reported in subsection A of this section to the division within 24 hours. The oral report shall provide all available details of the incident, including any adverse effects on any person or the environment. A written report shall be submitted within seven days of the spill or unpermitted discharge. The written report shall contain: <ol style="list-style-type: none"> a. A description of the incident and its cause; b. The period of release, including exact dates and times; c. A description of the steps to date; and d. A description of the steps to be taken to prevent a recurrence of the release. <p>C. Off-site spills. Permittees shall submit a written report of any spill or unpermitted discharge of fluids that originates off of a permitted site with the monthly report under 4 VAC 25-150-210. The written report shall contain:</p> <ol style="list-style-type: none"> 1. A listing of all agencies contacted about the spill or unpermitted discharge; and 2. All actions taken to contain, clean up or mitigate the spill or unpermitted discharge.

West Virginia		
Topic	Associated Forms	Regulations: http://www.wvsos.com/csr/rules.asp?Agency=Oil%20&%20Gas Excerpted Text by Topic
Permitting	Notice and Application for a Well Work Permit, Form WW-2A	West Virginia Code §22-6-6. Permit required for well work; permit fee; application; soil erosion control plan. (a) It is unlawful for any person to commence any well work, including site preparation work which involves any disturbance of land, without first securing from the director a well work permit. An application may propose and a permit may approve two or more activities defined as well work.
Well Treatment, Stimulation and Fracturing		No specific regulation located
Well Construction	Well Operators Report of Well Work, Form WR-35	Title 35 Legislative Rule 35-4-11. Operational Criteria. 11.1. Casing Not Exclusive - In addition to the casing required by W. Va. Code "22-6-18, 22-6-19, 22-6-20, and 22-6-21, there shall be used in each well such material and equipment and there shall be employed such additional procedures as are necessary for the purpose of separating high pressure zones from low pressure zones, the producing horizons, the water bearing strata, and mineable coal zones for the life of the well. 11.3. Fresh Water Casing - The fresh water protective casing required by W. Va. Code '22-6-21 shall extend at least thirty (30) feet below the deepest fresh water horizon (that being the deepest horizon which will replenish itself and from which fresh water or usable water for household, domestic, industrial, agricultural, or public use may be economically and feasibly recovered) and shall have cement circulated in the annular space outside the casing. The volume of cement needed shall be calculated using approved engineering methods to assure the return of the cement to the surface. In the event cement does not return to the surface, the district inspector shall be notified. If the top of cement cannot be located using sound engineering practices approved by the chief or his authorized representative, then an electric log or similar technology approved by the chief shall be used. Sound engineering practice approved by the chief or his authorized representative shall be used to fill the annular space back to the surface. Requests to approve methods, other than pre-approved practices, shall be acted upon by the chief or his authorized representative within twelve (12) hours of actual notice to the chief or his authorized representative, otherwise the request will be deemed approved. If the coal protection casing is cemented to the surface in accordance with the prescribed procedure, this may also be considered a fresh water protective casing. In no case shall the fresh water casing penetrate salt water or gas bearing strata or extend below sea level. There shall be no oil and gas production through the fresh water casing for new wells or the redrilling of existing wells permitted on or after August 1, 1993. Variances from the requirements of this section shall be granted on a site specific or area basis in accordance with section 18 of this rule. 11.4. Cement Strength - Cement placed in the annular space around the casing shall be allowed to set to a minimum compressive strength of five hundred (500) pounds per square inch, using approved engineering data for the type of cement used. The waiting time for cement used in compliance with subsection 11.5 shall be eight (8) hours. The waiting time on any other cement shall be in no case less than eight (8) hours. 11.5. Cement Type - Cement used to fill the annular space around the casing required in subsections 11.2 and 11.3 shall be American Petroleum Institute Class A Ordinary Portland cement with no greater than three percent (3%) calcium chloride and no other additives; provided, that if the well operator furnishes satisfactory proof that different cement types are adequate, the chief may approve use of such different cement types. 11.7. Drilling Practices Prior to Freshwater Casing - Prior to the cementing of the freshwater casing as required by subsection 11.3, drilling practices and procedures, such as air or water pressure and soaping, shall be conducted using operating practices so as to minimize damage or disturbance or the possibility of unnecessary damages or disturbance to the uncased strata/formations and groundwater contained in any of those formations. The requirements of this section shall not prevent the use of drilling practices and procedures reasonably necessary to the successful drilling of the well in a safe manner. The requirements of this section shall not be construed to prohibit practices specifically allowed by statute or other regulations.
Temporary Abandonment/ Shut- in Status		35-5-5. Inactive Status. 5.1. Upon submittal of a completed Designation of Bona Fide Future Use to the chief, any permitted well which satisfies the following requirements shall be deemed to be in inactive status: 5.1.a. The condition of the well is sufficient to prevent waste of oil or gas; 5.1.b. The condition of the well is sufficient to prevent pollution of waters of the state; and 5.1.c. The operator satisfies the bonding requirements of W. Va. Code '22-6-1 et seq. 5.2. The chief shall determine whether sufficient data and information have been provided to make a determination that the well has a bona fide future use and is properly deemed in inactive status. 5.3. The chief may require the operator of any well in inactive status to monitor the mechanical integrity of such well, and to require the operator to submit reports on the integrity of the well to the chief. 5.4. The inactive status of any well with a designation of bona fide future use shall be valid for the time period requested by the operator, not to exceed five (5) years from the date of filing with the chief, unless inactive status is revoked pursuant to subsection 5.5 of this rule, or unless the operator elects to extend the inactive status period pursuant to the provisions of subsection 3.3 of this rule. 5.6. Any well that is not in active or inactive status shall be deemed abandoned and shall be promptly plugged by the operator.
Well Plugging	Affidavit of Plugging and	35-4-13. Plugging, Abandonment and Reclamation.

	Filling Well, Form WR-38	<p>13.1. Notice and Application to Plug and Abandon; Time of Filing. 13.1.a. The Notice of Intention to Plug and Abandon a Well required by W. Va. Code '22-6-23 shall conform to subdivision 5.2.d. 13.1.b. The well operator shall also submit copies of all logs in his possession upon specific request by the chief pursuant to W. Va. Code '22-6-6(c)(10)(ii).</p> <p>13.5. Length of Plug - All cement plugs, other than those across coal seams, shall be at least one hundred (100) feet in length unless a variance from such a requirement is granted pursuant to section 18.</p> <p>13.6. Retrieving Casing and Completing a Seal - The operator shall make reasonable efforts to cut and pull all recoverable casing (as determined by methods approved by the chief or his authorized representative). Equipment used to pull recoverable casing shall be rated and rigged at or above one hundred and fifty percent (150%) of the estimated weight of the heaviest string of recoverable casing, unless otherwise approved by the chief or his authorized representative. Sufficient instrumentation shall be utilized to accurately indicate the pulling force applied. When casing cannot be pulled, the operator shall make reasonable attempts to perforate the pipe and squeeze cement behind the pipe in the vicinity of the freshwater zones to prevent the contamination of the fresh water zone.</p> <p>35-4-14. Plugging Methods.</p> <p>14.1. Materials Used in Plugging - The non-porous materials and cements mentioned in W. Va. Code '22-6-24 must be specified in the work order portion of Form WW-4(B), "Application to Plug and Abandon a Well." All cement, except where expanding cement is required, used in conjunction with plugging shall be American Petroleum Institute Class A Ordinary Portland cement with no greater than three percent (3%) calcium chloride and no other additives. All non-porous materials used in conjunction with plugging shall be at least six percent (6%) bentonite gel. If the operator furnishes satisfactory proof that different cement or non-porous material types are adequate, the chief or his authorized representative may approve use of such different cement or non-porous materials. Materials and cements must be of a kind and quality accepted by the oil and gas industry, and approved by the office as suitable for the intended purpose, and which otherwise comply with all provisions of law and accepted standards. The chief may approve use of non-standard material or cement.</p>
Tanks		<p>Title 35 Legislative Rule 35-1-7. Spill Prevention - Production Facilities</p> <p>7.4. No tank shall be used for the storage of oil or other pollutants unless its material and construction are compatible with the material stored and the conditions of storage.</p> <p>7.5. All tank battery and central treatment plant installations shall be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in subsection 7.1. Drainage from undiked areas should be safely confined in a catchment basin or holding pond.</p> <p>7.6. All tanks containing oil or other pollutants shall be visually examined by a competent person as to their condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of tanks that are above the surface of the ground.</p> <p>7.7. New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation, to prevent spills. At a minimum an owner or operator should have one or more of the following: 7.7.a. Adequate tank capacity to assure that a tank will not overflow should a pumper/gauger be delayed in making his regular rounds; 7.7.b. Overflow equalizing line between tanks so that a full tank can overflow to an adjacent tank; 7.7.c. Adequate vacuum protection to prevent tank collapse during a pipeline run; or 7.7.d. High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.</p> <p><i>Editors Note: See Spills section below for additional information on tanks</i></p>
Pits		<p>35-4-16. Reclamation.</p> <p>16.4. Pits - All field constructed pits which are used to contain wastewater shall meet the following minimum requirements: 16.4.a. Any pit shall be constructed and maintained so as to prevent seepage, leakage or overflows, and to maintain its integrity. 16.4.b. Provisions shall be made for diverting surface water from the pits. 16.4.c. When an operator is unable to maintain adequate freeboard to prevent overflow from any pit, the district inspector shall be notified by the well operator and an additional pit (or alternative overflow facility) shall be constructed under the supervision of the chief, which shall also meet the requirements specified in this subsection (16.4). 16.4.d. If existing soil is not suitable to prevent seepage or leakage, other materials which are impervious shall be used as a liner for a pit. Any such liner shall be installed in such a manner as to protect the structural integrity of both pit and liner. 16.4.e. Dikes associated with pits shall be constructed of compacted material and maintained with a slope that will preserve the structural integrity of such dike. 16.4.f. Any unlined dike constructed of existing soil shall be free of trees and other organic matter, large rocks, or any other material which could be reasonably expected to adversely affect the structural integrity of such dike. 16.4.g. Reclamation of the pits shall not cause an overflow and/or discharge of materials to waters of the state.</p>
Exempt Waste Handling	Construction and Reclamation Plan and Site Registration Application Form General Permit for Oil	<p>West Virginia Code §22-6-7. Water pollution control permits; powers and duties of the director; penalties.</p> <p>(a) In addition to a permit for well work, the director, after public notice and an opportunity for public hearings, may either issue a separate permit, general permit or a permit consolidated with the well work permit for the discharge or disposition of any pollutant or combination of pollutants into waters of this state upon condition that such discharge or disposition meets or will meet all applicable state and federal water quality standards and effluent limitations and all other requirements of the director.</p> <p>(b) It shall be unlawful for any person conducting activities which are subject to the requirements of this article, unless that person holds a water pollution control</p>

<p>and Gas Pit Waste Discharge, Form WW-9</p>	<p>permit therefor from the director, which is in full force and effect to:</p> <ul style="list-style-type: none"> (1) Allow pollutants or the effluent therefrom, produced by or emanating from any point source, to flow into the water of this state; (2) Make, cause or permit to be made any outlet, or substantially enlarge or add to the load of any existing outlet, for the discharge of pollutants or the effluent therefrom, into the waters of this state; (3) Acquire, construct, install, modify or operate a disposal system or part thereof for the direct or indirect discharge or deposit of treated or untreated pollutants or the effluent therefrom, into the waters of this state, or any extension to or addition to such disposal system; (4) Increase in volume or concentration any pollutants in excess of the discharges or disposition specified or permitted under any existing permit; (5) Extend, modify or add to any point source, the operation of which would cause an increase in the volume or concentration of any pollutants discharging or flowing into the waters of the state; <p>Title 35 Administrative Rule 35-2-3. Permits.</p> <p>A permit shall be obtained from the Division of Environmental Protection, Office of Oil and Gas, prior to the installation, establishment, construction, modification, operation or abandonment of any solid waste facility that is within the scope of subsection 1.1 of this rule. Such a permit shall satisfy the requirements of W. Va. Code '22-15-1 through 8 and contain such reasonable terms and conditions as may be prescribed by the Chief of the Division of Environmental Protection, Office of Oil and Gas.</p> <p>35-1-4. Waste Load Allocations.</p> <p>4.1.a. Application forms may be prescribed by the chief requiring submission of necessary information and data by the applicant to enable the Office of Oil and Gas to make a waste load allocation determination. Such determination shall be valid for a period of time specified by the chief. Reapplication for a new waste load allocation will be required upon expiration of the preceding waste load allocation unless application for a Water Pollution Control Permit has been filed.</p>
<p>Spills</p>	<p>35-1-3. Discharge Notification and Response.</p> <p>3.1. The owner or operator or person in charge of a facility subject to this rule from which a reportable discharge as described in subsection 3.3 occurs shall notify the Office of Oil and Gas by calling 1-800-642-3074 immediately; but in no case, later than twenty-four (24) hours after becoming aware of the discharge.</p> <p>3.2. The person who notifies the office pursuant to subsection 3.1 shall report the type of substance and the estimated quantity discharged, if known; the location of the discharge; actions the person reporting the discharge proposed to take to contain, clean-up and remove the substance, if any, and any other information concerning the discharge which the office may request at the time of notification. A written verification of such notification shall be submitted upon request of the office.</p> <p>3.3. The following discharges from a facility subject to this rules are "reportable discharges" within the meaning of this section:</p> <ul style="list-style-type: none"> 3.3.a. Any discharge which would be reportable pursuant to section 311(b) of the Federal Water Pollution Control Act Amendment of 1972, as amended by the Clean Water Act of 1977, 33 U.S.C. 1321, and the regulations promulgated thereunder; 3.3.b. Any upset or bypass causing effluent limitations established under the general permit to be exceeded; or 3.3.c. Any pit failure which results in a discharge to any surface water of the state. <p>3.4. The owner or operator of a facility from which a reportable discharge has occurred, or any person responsible for causing such discharge, shall attempt to stop the discharge and shall take reasonable measures to contain, clean-up and remove the discharge, to the extent he is capable of doing so.</p> <p>35-1-7. Spill Prevention - Production Facilities.</p> <p>7.1. At each production facility, which includes all wells, flowlines, separation equipment, storage facilities, injection facilities, and auxiliary non-transportation-related equipment and facilities, all operators shall have appropriate containment and/or diversionary structures or equipment to prevent discharged oil or other pollutants from reaching the waters of the state. One of the following preventative systems or its equivalent shall be used as a minimum, unless an appropriate water pollution control permit provides for another method of spill prevention:</p> <ul style="list-style-type: none"> 7.1.a. Dikes, berms, or retaining wall sufficiently impervious to contain spilled oil or other pollutants; 7.1.b. Curbing; 7.1.c. Culverting, gutters or other drainage system; 7.1.d. Weirs, booms or other barriers; 7.1.e. Spill diversion ponds; 7.1.f. Retention ponds; or 7.1.g. Sorbent materials. <p>7.2. At tank batteries central treatment stations, the dikes or equivalent required under subsection 7.1 shall have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area shall be inspected as provided in subsections 7.3, 7.6, and 7.8 of this section. Accumulated oil on the rainwater shall be picked up and returned to storage or disposed of in accordance with approved methods.</p> <p>35-1-8. Spill Prevention - Workover Operations.</p> <p>8.1. Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil or other pollutants from reaching waters of the state.</p> <p>8.2. Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.</p>

Wyoming		
Topic	Associated Forms	Regulations: http://wogcc.state.wy.us/rules-statutes.cfm?Skip='Y'
		Excerpted Text by Topic
Permitting	Application for Permit to Drill, Form 1	<p>Wyoming Oil & Gas Conservation Commission Rules Section 8. Application for Permit to Drill or Deepen a Well (Form 1).</p> <p>(a) Before any persons shall spud in and begin the drilling of any well on fee, patented, state, or federal lands, or deepen any such wells by drilling to a lower formation, such persons shall file an Application for Permit to Drill or Deepen (Form 1) with the Commission and pay a fee of fifty dollars (\$50.00) for a permit effective May 1, 1996. No drilling activity shall commence until such application is approved and a permit to drill is issued by the Commission.</p> <p>(b) For wells drilled on fee, patented and state land, prior to construction of the drilling location, approval of Form 14B (Application to Construct a Reserve Pit) must be obtained. The Application for Permit to Drill will not be processed until this requirement is met. A federal Application for Permit to Drill will be accepted in lieu of Form 1 and Form 14B for wells drilled on federal leases.</p> <p>(g) If drilling is not commenced, no such permit to drill shall be valid after the expiration of a period of one (1) year from the date of the issuance thereof by the Commission or its authorized agents. An application for Extension of Permit to Drill (Form 1A) may be submitted prior to the expiration date of the Permit to Drill, along with a \$50.00 extension fee, in order to request a one (1) year extension from such expiration date. An operator may be granted one (1) Extension of Permit to Drill.</p>
Well Treatment, Stimulation and Fracturing	Sundry Notices and Reports on Wells, Form 4 Well Completion, Recompletion Report and Log, Form 3	<p>Section 22. General Drilling Rules.</p> <p>(f) Within the Special Sodium Drilling Area – A or –B as defined in Chapter 1, Section 2(qq) or (rr) or all wells defined in Chapter 1, Section 2 unless altered, modified, or changed upon hearing before the Commission, or shown to contain no Trona Mineral Resources, shall only use stimulation methods that do not significantly damage the Trona Mineral Resources. A plan of work for any stimulation operation shall be submitted to the Supervisor and approved before the work is undertaken.</p> <p>(i) Well stimulation operations within the Trona Interval shall include a post stimulation survey that identifies the extent of induced fractures. Results of the survey shall be submitted to the Supervisor for evaluation to determine if induced fractures have significantly intersected the Trona Mineral Resources and if corrective action is required.</p> <p>(ii) Stimulation fluids shall be designed to prevent significant dissolution to the Trona Mineral Resources. The Supervisor shall require corrective action if it is determined that significant damage to the Trona Mineral Resources has, or is likely to occur.</p>
Well Construction	Well Completion, Recompletion Report and Log, Form 3 Report of Fresh Water Flows, Form 19 Well Integrity Report, Form 5	<p>Section 22. General Drilling Rules.</p> <p>(a) The following shall apply to the drilling of all wells unless altered, modified, or changed for a particular well, pool, unit, area or lands upon hearing before the Commission:</p> <p>(i) Surface casing shall be run to reach a depth below all known or reasonably estimated utilizable domestic fresh water levels and to prevent blowouts or uncontrolled flows. Fresh water flows detected during drilling including seismic, core, or other exploratory holes shall be recorded on Form 19 (Report of Fresh Water Flows) and reported to the Commission on the next business day. Information contained on the form shall describe the depth at which the sand was encountered, the thickness, and the rate of water flow, if known. In areas where pressures and formations are unknown, surface casing shall be of sufficient size to permit the use of an intermediate string or strings of casing. Surface casing shall be set in or through an impervious formation and shall be cemented by the pump and plug or displacement or other approved method with sufficient cement to fill the annulus to the top of the hole, all in accordance with reasonable requirements of the Supervisor. If cement is not circulated to the surface during the primary operation, the operator shall perform supplemental cementing operations to assure that the annular space from the casing shoe to the surface is filled with cement;</p> <p>(ii) Unless otherwise provided by specific order of the Commission for a particular well or wells or for a particular pool or parts thereof, cemented casing string shall stand under pressure until the cement at the shoe has reached a compressive strength of 500 pounds per square inch. In addition, the API free-water separation for all cement slurries used shall average no more than four milliliters per 250 milliliters of cement. All cements used shall achieve a minimum compressive strength of 100 psi in 24 hours measured at 80 degrees Fahrenheit. Testing for these properties shall be in accordance with accepted industry standards. The term "under pressure" as used herein shall be complied with if one float valve is used or if pressure is otherwise held;</p> <p>(iii) There shall be installed and maintained on all wells blowout preventers and related equipment in accordance with Chapter 3, Section 23 (i);</p> <p>(iv) Setting depths of all casing strings shall be determined by taking into account formation fracture gradients and the maximum anticipated pressure to be maintained within the wellbore;</p> <p>(v) If and when it becomes necessary to run a production string, such string shall be cemented by the pump and plug method and shall be properly tested by the pressure method before cement plugs are drilled;</p>
Temporary Abandonment/ Shut- in Status	Sundry Notices and Reports on Wells, Form 4	<p>Section 16. Temporarily Abandoned, Shut-In, or Dormant Wells (Form 4 and Form 2).</p> <p>(a) A well may be maintained as temporarily abandoned or shut-in provided any change in the status of the well is reported to the Supervisor on Form 4 and every month subsequent to the reported change, the well is listed on Form 2.</p> <p>(b) A well may not be maintained as temporarily abandoned, dormant, or shut-in for more than twenty-four (24) consecutive months from the date the well was first reported as temporarily abandoned, dormant or shut-in on Form 4 unless the operator of the well applies for and receives approval for an extension from the Supervisor. The Supervisor may prescribe forms or other information to be submitted with the extension request. Extensions may be granted for periods up to two (2) years.</p> <p>(c) Prior to approving a request for extension, the Supervisor may, upon a finding of good cause, require mechanical integrity testing in accordance with provisions of Chapter 4, Section 5(d) or other surveillance method approved by the Supervisor be performed on a temporarily abandoned or shut-in well. A</p>

		<p>temporarily abandoned or shut-in well which successfully passes a mechanical integrity or surveillance test shall not be required to undergo another test for five (5) years unless the Supervisor finds upon good cause that circumstances have substantially changed to alter the condition of the well.</p> <p>(d) The Supervisor may require any well which has been temporarily abandoned or shut-in for more than twenty-four (24) consecutive months or any temporarily abandoned, shut-in, or dormant well which has not been mechanically integrity tested within the preceding five (5) year period to undergo a mechanical integrity or other surveillance test prior to change in operator. Mechanical integrity testing must be performed in a manner consistent with UIC program pressure testing rules.</p>
<p>Well Plugging</p>	<p>Sundry Notices and Reports on Wells, Form 4</p>	<p>Section 15. Notice of Intention to Abandon Well (Form 4).</p> <p>(a) Before beginning abandonment work on any well, stratigraphic test, core hole, dry hole, or other exploratory hole, a Notice of Intention to Abandon shall be filed with the Supervisor and approval obtained as to method of abandonment before the work is started. The notice must show the reason for abandonment, and must give a detailed statement of proposed work including such information as kind, location, and length of plugs (by depths), and plans for mudding, cementing, shooting, testing, and removing casing, as well as any other pertinent information. This approval shall be valid for a period of one (1) year. After that time, a new Notice of Intent to Abandon the well shall be submitted.</p> <p>Section 18. Plugging of Wells, Stratigraphic Tests, Core, or Other Exploratory Holes (Form 4).</p> <p>(a) It shall be the duty of any owner or person, who assumes ownership, operator, or contractor, drilling any well, seismic, stratigraphic test, core, or other exploratory hole, whether cased or uncased, regardless of diameter, to plug said hole in accordance with the requirements of the Supervisor or as set forth hereinafter and in a manner sufficient to properly protect all fresh water bearing formations and possible or probable oil or gas bearing formations.</p> <p>(b) For wells as defined in Chapter 1, Section 2, (ddd) of these rules and regulations, and all stratigraphic test wells being abandoned, plugging must be accomplished by the following:</p> <p>(i) Wells without production casing must be plugged by placing cement plugs of at least one hundred feet (100') length over the following:</p> <p>(A) open hole porous and permeable formations;</p> <p>(B) at least every two thousand five hundred feet (2,500') if porous and permeable formations are not encountered;</p> <p>(C) in the base of the surface casing; and</p> <p>(D) at any other depth as required by the Supervisor.</p> <p>(c) The interval between all cement plugs must be filled with a heavy mud-laden fluid approved by the Supervisor.</p> <p>(ii) Wells with production casing:</p> <p>(A) All perforations must be isolated, by squeeze cementing. If access to the perforated areas of the wellbore has been lost, alternative procedures may be proposed by the operator. The Supervisor shall determine or approve which method and the quantity of cement that shall be used or the alternative method of plugging if access to perforations are lost;</p> <p>(B) The operator may leave the production casing in place, provided that the operator demonstrates that the casing exhibits mechanical integrity in a manner prescribed or approved by the Supervisor. If casing fails a mechanical integrity test, the Supervisor may require additional perforation and squeeze cementing or the placing of a balanced plug inside the casing.</p> <p>(C) If it is determined that any formation containing fresh water and potable water as defined under Chapter 1, Section 2(s), of these rules and regulations was not sealed or separated when production casing was cemented, the Supervisor may also require additional perforating and squeeze cementing. The Supervisor may also require the production casing to be perforated at a depth of the shoe of the surface casing and that cement be squeezed or circulated through the perforations through the uncemented zone; and;</p> <p>(D) If an attempt is made to recover production casing after the retrievable part of the production casing has been removed, cement must be circulated to fill at least a 100-foot (100') interval, of which 50 feet (50') must be inside the casing stub. The remainder of the hole shall be plugged in the manner prescribed under Subsection(b)(i) of this section, wells without casing.</p> <p>(d) In plugging horizontal wells, a continuous cement plug shall be placed from at least one hundred feet (100') into the lateral back to one hundred feet (100') into the vertical portion of the wellbore, unless an alternate plugging program is approved by the Supervisor. The remaining portion of the vertical wellbore shall then be plugged in accordance with the preceding requirements.</p> <p>(e) No substance of any nature or description other than those normally used in plugging operations shall be placed in any well at any time during plugging operations.</p> <p>(f) Verbal approval to plug and abandon or approval of a Notice of Intention to Abandon (NIA-Form 4) must be obtained prior to commencing actual plugging operations. Under Chapter 4, Section 11, special plugging orders or variances from normal practice may be obtained or set forth when conditions dictate to protect fresh water bearing formations.</p> <p>(h) In addition to the requirements under (b) of this section, all wells within the Special Sodium Drilling Area – A as defined in Chapter 1, Section 2(qq), shall have a directional survey run from the base of the Trona Interval to surface if not previously run. A cement bond log or other appropriate log shall be run from the base of the Trona Interval to top of cement to determine the integrity of the cement in casing annuluses.</p> <p>(i) In addition to the requirements under (b) of this section, all wells in the SSDA – A or – B shall be plugged by placing a continuous cement plug, at a minimum, through the Trona Interval in all open zones, open casing zones, and all open or inadequately cemented casing annuluses. Perforation and squeeze cementing shall be used where required by the Supervisor.</p>
<p>Tanks</p>		<p>Section 4. Workmanlike Operations.</p> <p>(a) The owner or operator shall carry on all operations and maintain the property at all times in a safe and workmanlike manner, having due regard for the preservation and conservation of the property and for the health and safety of employees and people residing in close proximity to those operations or those who routinely are in close proximity to those operations. At a minimum, the owner or operator must unless otherwise approved by the Supervisor:</p> <p>(vii) Maintain tanks in a workmanlike manner which will preclude seepage from their confines and provide for all applicable safety measures. Owners or operators should be aware of their responsibility to comply with spill prevention control and countermeasures plan (SPCC 40 CFR 112) requirements that regulate the prevention and containment of crude oil spills. SPCC regulations and guidelines specify that applicable facilities construct appropriate containment or diversionary structures or equipment to prevent discharged oil from reaching waters of the United States. The use of crude oil tanks without tops is strictly</p>

<p>Pits</p>	<p>Application for a Permit to Construct an Earthen Pit for Retention of Produced Water, Form 14A Application for a Permit to Construct an Earthen Pit Temporary Use or Reserve Pit, Form 14B</p>	<p>prohibited;</p> <p>Section 22. General Drilling Rules.</p> <p>(b) Before drilling commences, approval to construct proper and adequate reserve pits for the reception and confinement of mud and cuttings and to facilitate the drilling operation shall be applied for and received in accordance with Chapter 4, Section 1. Special precautions, including but not limited to, an impermeable liner and/or membrane, monitoring systems, or closed systems, shall be taken, if necessary, to prevent contamination of streams and potable water and to provide additional protection to human health and safety in instances where drilling operations are conducted in close proximity to water supplies, residences, schools, hospitals, or other structures where people are known to congregate. Pits, wellheads, pumping units, tanks, and treaters shall be located no closer than three hundred fifty feet (350') from any of the aforementioned items. The Supervisor may impose greater distances for good cause and likewise grant exceptions to the 350-foot rule.</p> <p>Section 32. Open Pit Storage of Oil.</p> <p>The owner shall not, except during an emergency or except by special permission of the Supervisor, permit oil to be temporarily stored or retained in earthen reservoirs or in any receptacle in which there may be undue waste of oil.</p> <p>Section 1. Pollution and Surface Damage (Forms 14A and 14B).</p> <p>(a) These rules are intended to protect human health and the environment by avoiding contamination of the soils and underground and surface waters at drilling or producing locations. Applications to construct pits, provided for in these rules, shall be approved if the pit will not cause the contamination of surface or underground water, and endanger human health or wildlife. Approval by the Commission of applications for permits for reserve or produced water pits does not relieve the owner or operator of the obligation to comply with the applicable federal, local, or other state permits or regulatory requirements.</p> <p>(b) The Commission exercises its regulatory authority over the construction, location, operation, and reclamation of oilfield pits within a lease, unit or communitized area which are used solely for the storage, treatment, and disposal of drilling, production and treater unit wastes. The following pits are subject to this regulation:</p> <ul style="list-style-type: none"> (i) reserve pits on the drilling location; (ii) reserve pits off the location within a lease, unit or communitized area permitted by owner or unit operator drilling the well; (iii) produced water retention pits, skim pits, and emergency production pits including the following: <ul style="list-style-type: none"> (A) pits associated with approved disposal wells which act as fluid storage, filtering or settling ponds prior to underground disposal in a Class II well; (B) pits constructed for disposal of produced fluids in connection with oil and gas exploration and production used as part of the filtering and/or settling process upstream of an NPDES discharge point; (C) pits constructed in association with heater treaters or other dehydration equipment used in production, such as free water knockouts, or first, second and third stage separators; (D) pits constructed for blowdown or gas flaring purposes. (iv) pits constructed for the storage and treatment of heavy sludges, oils, or basic sediment and water (BS&W) in connection with production operations; (v) temporary pits constructed during well workovers, including spent acid and frac fluid pits; (vi) permanent or temporary emergency use pits; (vii) miscellaneous pits associated with oil and gas production not listed above. <p>(c) Permits. In addition to the permits required by the Commission and the Bureau of Land Management, the following agencies may also have authorities over the management of oil field wastes:</p> <ul style="list-style-type: none"> (i) The Wyoming Department of Environmental Quality administers the following regulatory programs: <ul style="list-style-type: none"> (A) commercial ponds and pits used for the retention and disposal of fluids; (B) Class I hazardous waste and nonhazardous waste wells under the Underground Injection Control Program; (C) National Pollutant Discharge Elimination System Program; (D) regulations for releases of oil and hazardous substances into waters of the state and Wyoming Contingency Plan; (E) roadspreading, landspreading, and landfarming of exploration and production wastes; (F) solid waste disposal facilities operated by municipalities and privately by the oil and gas industry; <p>(d) Oil and Gas Commission Pit Permits. No retaining pit or below-grade structure used for the containment of fluids, as defined in this section, shall be constructed unless Form 14A (Application for Permit to Construct and Use Earthen Pit for Retention of Produced Water) or 14B (Application for Permit to Construct and Use Earthen Pit for Temporary Use, or Reserve Pit), has been submitted to and approved by the Supervisor. The Commission shall not approve any application, either Form 14A or 14B until the applicant has demonstrated compliance with the requirements of the Split Estates Act, if the application is subject to the Split Estates Act, as contained within Chapter 3, Section 8(d).</p> <p>(e) Owners or operators of produced water retaining pits in operation prior to June 1, 1984, may continue to use such pits as long as the operation conforms to the current requirements of new pits. Owners of existing pits shall be responsible for providing the information included on Form 14A upon request of the Supervisor.</p> <p>(f) The Supervisor may administratively approve field-wide or area-wide applications covering the standardized construction and operation of earthen retaining pits.</p> <p>(h) Centralized Pits. Owners or operators must obtain approval of the Supervisor for the location, construction and closure of noncommercial centralized pits located within a lease, unit, or communitized area used for field operations. Requirements may be more stringent than individual reserve or produced water pits depending on pit size,</p>
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		<p>waste type, and location. Applicants upon request of the Supervisor, shall provide additional notice, plats and plan views, and information relative to the location of water supplies, residences, schools, hospitals, or other structures where people are known to congregate, site security, groundwater monitoring and leak detection. These permits will be issued for a term of five (5) years and may be renewed at the discretion of the Supervisor.</p> <p>(i) Emergency Pits. Prior to construction, permanent emergency pits must be approved on Form 14B (Application For Permit To Construct and Use an Earthen Pit for Temporary Use, or Reserve Pit). Within twenty-four (24) hours of the first business day after construction of a temporary emergency pit or use of a permanent emergency pit, the owners or operators shall verbally advise the Supervisor of the existence of the pit and of the estimated time it will be in use.</p> <p>(j) Reserve Pits. Form 14B must be submitted and approved in conjunction with an Application for Permit to Drill (Form 1). Approval of this permit must be obtained before drilling commences. The staff must be provided at least one (1) working day to evaluate the location (for distance from surface waters, depth to useable ground water, soils, distance from human habitation, etc.) and to evaluate the fluids which potentially will be retained in the pit (for types of drilling and completion fluids proposed for use, for presence of salt sections, and for the length of time the pit will be in use, etc.). The Commission may request additional information to complete its evaluation. Owners and operators using closed systems who wish to use a pit to receive drill cuttings must apply for and receive permission to construct on Form 14B.</p> <p>(k) Permits are valid for a term of one (1) year from the date of issuance unless an extension has been approved for the Application for Permit to Drill (Form 1) and for as long as the permit conditions are met. Falsification of information on the application or filing of an incomplete application will result in automatic denial of the request.</p> <p>(l) Workover and Completion Pits in Critical Areas. Approval of workover and completion pits proposed to be constructed in locations meeting the definition of pits in critical areas must be applied for and obtained on Form 14B prior to their construction and use.</p> <p>(o) Workover and Completion Pits in Non-critical Areas. Workover and completion pits proposed to be constructed in locations not meeting any of the criteria listed in the definition of pits in critical areas, Chapter 1, Section 2(jj), will require either:</p> <p>(i) submittal of a Form 14B application for a field or individual well basis to receive a one-time approval to construct and use workover and completion pits. As long as the owner or operator complies with the approved Form 14B terms and conditions, no further application/notice will be required for future construction and use of workover and completion pits.</p> <p>(ii) notification to the Supervisor via Sundry Notice (Form 4), subsequent to the construction and use of a workover or completion pit. This must be submitted within thirty (30) days of completion of operations and include the following information:</p> <p>(A) schematic diagram showing the location of the workover or completion pit in relation to existing production equipment;</p> <p>(B) length of time the pit was in use; and</p> <p>(C) statement addressing the types of fluids placed in the pit and that those fluids were removed prior to closure.</p> <p>(p) General Information for Workover and Completion Pits. Upon review of Form 14B applications, the Commission staff will evaluate well locations to determine if their proposed siting is in a critical area (for distances from surface waters, depth to useable groundwater, soils, distances from human habitation, etc.). In the event construction is approved, special precautions or operational restrictions may be required by the Supervisor at these well facilities in order to avoid contamination of groundwater and surface water at the well location.</p> <p>(q) Workover pits should retain only RCRA exempt wastes. Other wastes should be managed in tanks for later recycling, reuse, or proper disposal. Owners or operators should design workover or completion procedures so that additives will be expended while correcting the down-hole problems. Workover and completion pits shall be open only for the duration of operations and must be closed within thirty (30) days after the operation is complete.</p> <p>(r) Produced Water Pits. Form 14A must be submitted and approved prior to use of a produced water pit. The Commission may request additional information to determine if the proposed pit location meets the definition of a critical area.</p> <p>(i) The information required for submittal includes a standard water analysis (Form 17) to include oil and grease, maximum and average estimated inflow, size of pit, freeboard capacity, original of pit contents, method of disposal of pit contents, maximum fluid level above average ground level, distance to closest surface water, depth to groundwater, subsoil type and type of sealing material. A plan view map and topographic map of sufficient size and detail to determine surface drainage system and all natural waterways and irrigation systems, if applicable, must be attached. The Commission may request additional information.</p> <p>(ii) Because of the potential for direct communication with shallow groundwater resources of the state, application for approval of construction of percolation pits for containment and discharge of water produced in association with coalbed methane gas in the Powder River Basin may be accompanied by a review of the groundwater issues by the Department of Environmental Quality as determined by the Supervisor. If the proposed construction meets with requirements of the Commission's rules, the application may be granted.</p> <p><i>Editors Note: The Wyoming regulations contain substantially more language governing pits than that shown above. For the purposes of brevity this language was omitted from this section of the report, but can be viewed at the regulations link shown at the beginning of the Wyoming pages.</i></p>
<p>Exempt Waste Handling</p>	<p>Facility Information for Road Application of Waste and Waste Water, Form 20</p>	<p>Section 1. Pollution and Surface Damage (Forms 14A and 14B).</p> <p>(mm) Landfarming and landspreading must be approved by the DEQ. Jurisdiction over roadspreading or road application is shared by DEQ and the Commission. Roadspreading or road application is a process whereby wastes are incorporated into a roadbed, typically for beneficial use, with minimal environmental risk. The Commission is the agency responsible for permitting road applications of RCRA-exempt exploration and production wastes which include drilling fluids, produced water and produced water-contaminated soils, waste crude oil, sludges, and oil-contaminated soils inside the boundaries of a lease, unit, or communitized area. The roadspreading application shall include acceptable evidence of landowner consent and the information included on the Commission's Form 20. Landfarming, landspreading, and roadspreading shall be protective of human health and the environment and shall be performed in compliance with all other applicable State and Federal regulations and requirements.</p>

		<p>(ss) One-time Downhole Disposal. By formal order or by administrative action the Commission may approve of one-time disposal of a limited volume of fluid produced in the course of drilling operations from one specific well. This is not an operation designed for downhole disposal of drilling fluids from offsetting or additional wells. This application is not to be confused with the approval of a Class II well for underground disposal of water produced in association with the recovery of hydrocarbons under the Underground Injection Control Program. Disposal by injection shall not be initiated until such time as approval has been granted by the Commission.</p> <p>(tt) An application for approval of reserve pit fluid injection shall demonstrate that water in the proposed disposal interval is in excess of 10,000 milligrams per liter total dissolved solids or has received an aquifer exemption under Chapter 4, Section 12 and that fresh water or Underground Sources of Drinking Waters (USDW) will not be influenced by the disposal operation.</p> <p><i>Editors Note: Se Pits section above for information concerning Waste handling authority by the Wyoming Department of Environmental Quality</i></p>
<p>Spills</p>	<p>Incident Report</p>	<p>Section 3. Accidents, Spills, and Fires.</p> <p>(a) The owner or operator shall take all reasonable precautions to prevent accidents and fires, shall notify the Supervisor within twenty-four (24) hours of all accidents (other than personal injuries and deaths) or fires of major consequence, and shall submit a full report thereon within fifteen (15) days.</p> <p>(b) Uncontained spills or unauthorized releases of produced fluids, drilling muds, produced water, hydrocarbons, or chemicals which enter, or threaten to enter, waters of the state must be verbally reported to the Commission no later than the next business day following discovery of the incident. Spills of less than ten (10) barrels (420 gallons) of crude oil, petroleum condensate, produced water, or a combination thereof which occur on a lease, unit, or communitized area and do not physically enter waters of the state and are immediately contained, removed, and disposed of properly are not required to be reported. The owner or operator shall file a written report within fifteen (15) working days. An example of the information normally required by the Commission for reporting spills is included in Appendix E. The Commission accepts copies of reports prepared to satisfy the requirements of the Department of Environmental Quality or the Bureau of Land Management.</p>

Ground Water Protection Council
13308 N. MacArthur Blvd.
Oklahoma City, OK 73142
(405)516-4972
www.gwpc.org