

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES)

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

ARCO Alaska, Inc.
(the Permittee)
700 "G" Street
P.O. Box 100360
Anchorage, Alaska 99510

is authorized to discharge from the **Kuparuk Wastewater Treatment Plant** (hereafter, "the facility"), located on the North Slope at the Kuparuk Operation Center, Kuparuk River Oil Field, to the receiving waters of an unnamed lake (hereafter, "the receiving water"), in accordance with discharge point, effluent limitations, monitoring requirements and other conditions set forth herein.

<u>Outfall</u>	<u>Latitude</u>	<u>Longitude</u>
001	70° 19' 45"	149° 35' 27"

This permit shall become effective November 2nd 1999.

This permit and the authorization to discharge shall expire at midnight, November 2nd, 2004.

Signed this 30thday of September, 1999.

/s/ Roger Mochnick for
Director, Office of Water, Region 10
U.S. Environmental Protection Agency

ARCO Kuparuk WWTP

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I. SPECIFIC LIMITATIONS AND MONITORING REQUIREMENTS

A. Effluent Limitations and Monitoring Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from Outfall 001 annually from October 15th through July 31st on an as-needed basis. The conditions for discharge to the receiving water are defined in the Best Management Practices Plan (BMP) developed under Part I.B. of this permit. The requirements of this section are applicable only during a discharge into the receiving water, as shown in the BMP Plan, from Outfall 001.

1. Effluent Limitations and Monitoring.

- a. The discharge shall be limited and monitored by the permittee during periods of discharge as specified below:

Effluent Characteristics		Discharge Limitations			Monitoring Requirements	
		Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Discharges from August 1 through October 14 are prohibited.						
Flow, gpd	10/15 - 6/30	---	---	180,000	Continuous	Recorder
	7/1 - 7/31	---	---	100,000	Continuous	Recorder
Biochemical Oxygen Demand (BOD ₅), mg/L		30	45	60	Weekly	24-hour Composite
Total Suspended Solids (TSS), mg/L		30	45	60	Weekly	24-hour Composite
Fecal Coliform Bacteria (FC), #/100 ml		40	---	80	5 times/month	Grab
Total Residual Chlorine (TRC), mg/L		0.5	---	1.0	Daily	Grab
Total Ammonia (as N), mg/L		1.0	---	1.4	Weekly	24-hour Composite
Nitrate, mg/L		20	---	28	Weekly	24-hour Composite
Color (standard units)		15	---	21	Weekly	24-hour Composite
Copper, Fg/L		34	—	69	Weekly	24-hour Composite
Zinc, Fg/L		77	---	154	Weekly	24-hour Composite

- b. The permittee shall ensure that Outfall 001 discharges to the surface of the receiving water as a spray achieving a high air to water volumetric ratio.
- c. The monthly average percent removal of BOD₅ and of TSS shall not be less than 85 percent. The sample type for both influent and effluent samples shall be 24-hr composite, and the monitoring frequency shall be weekly. Influent and effluent samples shall be collected during the same 24-hour period.
- d. The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored daily. Grab samples shall be used.
- e. There shall be no discharge of floating solids, visible foam, or oily wastes which produce a sheen on the surface of the receiving water.
- f. The wastestream shall be limited to domestic wastes (kitchen, bathroom, laundry, WWTP laboratory and minor medical).
- g. The discharge shall meet Alaska water quality standards of 20 FC per 100 ml (the 30-day mean) and 10 Fg TRC at the edge of the 250 ft mixing zone established by the Alaska Department of Environmental Conservation (ADEC).

When a surface discharge occurs, a minimum of one sample must be collected from the outer edge of the established mixing zone during the spring or summer and a minimum of one sample must be collected from the outer edge of the established mixing zone during the fall or winter. These samples must be analyzed for TRC and FC. The sample collection, analysis and reporting of the results shall be conducted in the same manner and under the same time constraints as is required in Part I.A.1.a-b of the permit.

2. *Total Petroleum Hydrocarbon Monitoring.*

Sampling shall be conducted weekly during periods of surface discharge for one year and shall consist of four grab samples taken within a 24-hour period, analyzed individually, and averaged for the weekly monitoring value. The permittee shall sample and analyze the effluent for total petroleum hydrocarbons (TPHC) using Method 418.1-modified or alternate procedures approved in accordance with 40 CFR Part 136.5. If these data show that water quality standards are being exceeded, EPA will reopen the permit to include a water quality-based limitation.

3. *Chronic Toxicity Testing.*

The permittee shall conduct quarterly toxicity, when possible, tests on effluent grab samples. If, after four quarters of testing, the maximum measured toxicity is less than or equal to 2 TUc, then monitoring frequency shall be reduced to once per year or otherwise eliminated if approved by EPA and ADEC. It is recognized that four quarters of testing may not be accomplished during the first year of the permit due to the intermittent nature of the discharge.

a. Test Species and Methods:

- (1) The permittee shall conduct short-term tests with the water flea, *Ceriodaphnia dubia* (survival and reproduction test) and the fathead minnow, *Pimephales promelas* (larval survival and growth test) for the first three suites of tests. After this screening period, monitoring shall be conducted using the most sensitive species. If neither species shows evidence of being the most sensitive, then either species can be used in subsequent testing.
- (2) The presence of chronic toxicity shall be estimated as specified in **Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms**, Third Edition, EPA/600-4-91-002, July 1994, or subsequent editions.

b. Limits

- (1) Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. The chronic toxicity limitation is: a daily maximum of 2.0 TUc.
- (2) Results shall be reported in TUc, where $TUc = 100/NOEC$ or $100/IC_{50}$ or EC_{50} or another equivalent endpoint approved by ADEC such as the IC_{25} . These terms are defined in Permit Part I.E.

c. Quality assurance

- (1) A series of five dilutions and a control shall be tested. The series shall include the instream waste concentration (IWC), the calculated concentration of effluent at the edge of the mixing zone, in this case 50%. Also, two dilutions above the

IWC, and two dilutions below the IWC (for example, 12.5%, 25%, **50%**, 75%, and 100%) shall be included.

- (2) If organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient.
- (3) If either the reference toxicant tests or the effluent tests do not meet test acceptability criteria as specified in the test methods manual, then the permittee must re-sample and re-test as soon as possible, realizing that a no-discharge condition may delay the re-sampling and re-testing.
- (4) Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration, etc.).
- (5) Control and dilution water should be receiving water or lab water, as appropriate. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.
- (6) Chemical testing for the parameters for effluent limitations listed in Permit Part I.A.1.a. shall be performed on a split of each sample collected for WET testing. To the extent that the timing of sample collection coincides with that of the sampling required in Permit Part I.A., chemical analysis of the split sample will fulfill the requirements of that Part as well.

d. Preparation of Generic TRE Workplan

The permittee shall submit to EPA a copy of the permittee's toxicity reduction evaluation (TRE) workplan [1-2 pages] within 90 days of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:

- (1) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;
- (2) A description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility;

- (3) If a toxicity identification evaluation (TIE) is necessary, who will conduct it (i.e., in-house or other)

e. Reporting

- (1) The permittee shall submit the results of the toxicity tests, including any accelerated testing conducted during the month, within 30 days of the receipt of final test results. If the generic TRE workplan is used to determine that accelerated testing is unnecessary, then those results shall be submitted within 30 days of the investigation conclusion.
- (2) The full report shall be submitted by January 31 for the previous year.
- (3) The full report shall consist of: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; (3) the type of production; (4) the flow rate at the time of sample collection; and (5) the results of the effluent analyses for chemical/physical parameters required for the outfall as defined in Part I.A. of the permit.
- (4) Test results for chronic tests shall be reported according to the chronic manual [referenced in Permit Part I.A.3.a.(2)] chapter on Report Preparation, and shall be attached to the DMR.
- (5) Evaluation results: The permittee shall notify EPA and the State in writing within fifteen (15) days of receipt of the final test results showing an exceedance of the chronic toxicity limit. The evaluation shall include:
 - (a) The finding of the TRE or other investigation to identify the cause(s) of toxicity;
 - (b) Actions the permittee has taken or will take to mitigate the impact of the discharge, to correct the noncompliance and to prevent the recurrence of toxicity;
 - (c) Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented; and
 - (d) If no actions have been taken, the reason for not taking action.

f. Accelerated Testing:

- (1) If chronic toxicity greater than $2 TU_C$ is detected, then the permittee shall conduct tests of the next six discharge events. Discharge conditions permitting, testing shall commence as

soon as possible after the receipt of the final sample results showing an exceedance. It is recognized that the next six discharges may not occur on a regular basis due to the intermittent nature of the discharge.

- (2) If implementation of the generic TRE workplan indicates the source of toxicity (for instance, a temporary plant upset), then only one additional test is necessary. If chronic toxicity in exceedance of the permit limit is detected in this test, then Part f.(1), above, shall apply.
- (3) If chronic toxicity greater than $2 TU_C$ is detected in any of the six additional tests, then, in accordance with the permittee's TRE workplan or, at a minimum, in accordance with EPA Manual, **Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs)** EPA/600/2-88/070, the permittee shall initiate a TRE within fifteen (15) days of receipt of the final sample results that show an exceedance of the chronic toxicity limitation.
- (4) If none of the six tests indicates toxicity that exceeds the chronic toxicity limitation, then the permittee may return to the normal testing frequency.

g. Toxicity Identification Evaluation (TIE)

- (1) If chronic toxicity greater than $2 TU_C$ is detected in any two of the next six tests, then the permittee shall, in accordance with EPA acute and chronic manuals, listed below, initiate a TIE within 15 days realizing that lack of an effluent discharge may hinder this process.

Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase 1 [EPA/600/6-91/005F],

Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity [EPA/600/R-92/080],
and

Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Identification Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity [EPA-600/R-92/081].

- (2) If a TIE is triggered prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.

B. Best Management Practices Plan.

1. *Development.* The permittee shall during the term of this permit operate the facility in accordance with the Best Management Practices (BMP) Plan for Kuparuk Operations Center Waste Water Treatment Plant (ARCO Alaska 4/3/94) or subsequent amendments to the BMP Plan. The BMP Plan shall be implemented upon the effective date of the permit.
2. *Purpose.* Through implementation of the BMP Plan the permittee shall prevent or minimize the generation and the potential for the release of pollutants from the facility to the waters of the United States through normal operations and ancillary activities.
3. *Objectives.* The permittee shall maintain and amend the BMP Plan consistent with the following objectives for the control of pollutants.
 - a. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility shall be minimized by the permittee to the extent feasible by managing each influent waste stream in the most appropriate manner.
 - b. Under the BMP Plan, and any Standard Operating Procedures (SOPs) included in the plan, the permittee shall ensure proper operation and maintenance of the treatment facility.
 - c. The permittee shall establish specific objectives for the control of pollutants by conducting the following evaluations.
 - (1) Each facility component or system shall be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc. The examination shall include all normal operations and ancillary activities, including material storage areas, plant site runoff, in-plant transfer, process and material handling areas, spillage or leaks, or sludge and waste disposal.
 - (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances to result in significant amounts of pollutants reaching surface waters, the program should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

4. *Requirements.* The BMP Plan shall:
 - a. Be documented in narrative form, and shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structure:
 - (1) Name and location of the facility.
 - (2) Statement of BMP policy.
 - (3) Structure, functions, and procedures of the Best Management Practices Committee.
 - (4) Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:
 - (a) modification of equipment, facilities, technology, processes, and procedures,
 - (b) reformulation or redesign of products,
 - (c) substitution of materials, and
 - (d) improvement in management, inventory control, materials handling or general operational phases of the facility.
 - (5) Risk identification and assessment.
 - (6) Reporting of BMP incidents.
 - (7) Materials compatibility.
 - (8) Good housekeeping.
 - (9) Preventative maintenance.
 - (10) Inspections and records.
 - (11) Security.
 - (12) Employee training.
 - b. Include the following provisions concerning BMP Plan review:
 - (1) Be reviewed by plant engineering staff and the plant manager.

- (2) Be reviewed and endorsed by the permittee's BMP Committee.
 - (3) Include a statement that the above reviews have been completed and that the BMP Plan fulfills the requirements set forth in this permit. The statement shall be certified by the dated signatures of each BMP Committee member.
 - c. Establish specific best management practices to meet the objectives identified in Part I.B.3. above, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.
5. *Documentation.* The permittee shall maintain a copy of the BMP Plan at the facility and shall make the plan available to EPA or ADEC upon request. All offices of the permittee which are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan.
6. *BMP Plan Modification.* The permittee shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The permittee shall also amend the Plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the BMP Plan shall be consistent with the objectives and specific requirements listed above.
7. *Modification for Ineffectiveness.* At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the permit and/or the BMP Plan shall be subject to modification to incorporate revised BMP requirements.

C. Sludge Management Requirements.

The permittee shall handle and dispose of wastewater plant sludge in accordance with the applicable state requirements. If the sludge is placed or buried on the land, it is subject to the federal standards for solid waste disposal in 40 CFR 257.

D. Environmental Monitoring Requirements.

1. *Development.* The permittee shall develop an environmental monitoring plan during the first year of this permit. The plan shall include, but not be limited to, procedures to determine the following:
 - a. the volume and rate of flows into and out of the receiving water,

- b. temperature in the receiving water, and
- c. concentrations of total residual chlorine, turbidity, fecal coliform organisms, total suspended solids, settleable solids, dissolved oxygen, ammonia/nitrogen, nitrate/nitrogen, copper, and zinc in the nearfield and farfield receiving water.

The plan of study shall be made available to EPA and ADEC upon request. A copy of the plan shall be provided to the North Slope Borough (NSB).

2. *Implementation.* The permittee shall conduct the monitoring described in the environmental monitoring plan only if there is a sustained effluent discharge of seven or more days from outfall 001 into the receiving water.
3. *Reporting.* The permittee shall submit a written report of the methods and results of the environmental monitoring program to EPA and ADEC on or before December 31st of the year of study. Copies of the report shall be provided to NSB.
4. *Continuation or modification of monitoring.* The monitoring program may be expanded if EPA and ADEC, in consultation with NSB, determine that water quality at the mixing zone boundary exceeds applicable water quality criteria and standards. This expanded program may include (1) additional sampling stations, (2) additional sampling times, and/or (3) additional parameters.
5. *Modification of permit.* This permit may be modified, suspended, or revoked in whole or in part during its term if the EPA and ADEC, in consultation with NSB, determine that water quality at the mixing zone boundary exceeds water quality criteria and standards.

E. Definitions and Acronyms.

1. "ADEC" means Alaska Department of Environmental Conservation.
2. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
3. "Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

4. *"Bypass"* means the intentional diversion of waste streams from any portion of a treatment facility.
5. *"Daily discharge"* means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
6. The *"EC"* or *"effective concentration"* is a point estimate of the toxicant concentration that would cause a given percent reduction (p) in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., Probit).
7. *"EPA"* means the U.S. Environmental Protection Agency Region 10.
8. *"gpd"* means gallons per day.
9. A *"grab"* sample means a single sample or measurement taken at a specific time or over as short a period of time as is feasible.
10. The *"IC"* or *"inhibition concentration,"* is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method).
11. *"Maximum daily discharge limitation"* means the highest allowable *"daily discharge."*
12. *"mg/L"* means milligrams per liter.
13. The *"NOEC"* or *"no observed effect concentration"* is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses show no statistically significant difference from the controls).
14. *"NSB"* means the North Slope Borough.
15. *"Severe property damage"* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- D. Additional Monitoring by the Permittee.** If the permittee monitors any pollutant more frequently than required by this permit, using test procedures in accordance with section II.B. above, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge report form. Such increased frequency shall also be indicated.
- E. Records Contents.** Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- F. Retention of Records.** The permittee shall retain the application and records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities for a period of at least five years (or longer as required by the applicable sludge standards, when promulgated). All other records shall be retained for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Director or ADEC at any time. The records to be retained shall include all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. Data collected on-site, copies of Discharge Monitoring Reports, sludge reports, and a copy of this NPDES permit must be maintained on-site during the duration of activity at the permitted location.
- G. Twenty-four Hour Notice of Noncompliance Reporting.**
1. The following occurrences of noncompliance shall be reported by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
 - a. Any noncompliance which may endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G., Bypass of Treatment Facilities.);

- c. Any upset which exceeds any effluent limitation in the permit (See Part III.H., Upset Conditions.); or
 - d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit to be reported within 24 hours.
 2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 3. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Unit in Seattle, Washington, by phone, (206) 553-1846.
 4. Reports shall be submitted to the addresses in Part II.C., Reporting of Monitoring Results.

H. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.C. are submitted. The reports shall contain the information listed in Part II.G.2.

I. Inspection and Entry. The permittee shall allow the Director, ADEC, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

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4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

J. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit (Part I) shall be submitted no later than 10 days following each schedule date.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions.

1. **Civil and Administrative Penalties.** Any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil or administrative penalty, not to exceed the maximum amounts authorized by Sections 309(d) and 309(g) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note).
2. **Criminal Penalties:**
 - a. **Negligent Violations.** The Act provides that any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or by both.
 - b. **Knowing Violations.** The Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$5,000 nor more than \$50,000 per day of violation or by imprisonment for not more than 3 years, or by both.
 - c. **Knowing Endangerment.** The Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, and who knows at that time that he thereby places another person in imminent danger of

death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this subparagraph, be subject to a fine of not more than \$1,000,000.

- d. **False Statements.** The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both.

Except as provided in permit conditions in Part III.G., Bypass of Treatment Facilities and Part III.H., Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

- C. Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal practice in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances.** Solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

G. Bypass of Treatment Facilities.

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this section.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.G., Twenty-four Hour Notice of Noncompliance Reporting.
3. Prohibition of bypass.
 - a. Bypass is prohibited and the Director or ADEC may take enforcement action against a permittee for a bypass, unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under paragraph 2 of this section.
 - b. The Director and ADEC may approve an anticipated bypass, after considering its adverse effects, if the Director and ADEC determine that it will meet the three conditions listed above in paragraph 3.a. of this section.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit

effluent limitations if the requirements of paragraph 2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.G., Twenty-four Hour Notice of Noncompliance Reporting; and
 - d. The permittee complied with any remedial measures required under Part III.D., Duty to Mitigate.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

- I. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

IV. GENERAL REQUIREMENTS

- A. **Notice of New Introduction of Pollutants.** The permittee shall provide adequate notice to the Director, Water Division and ADEC of:
 1. Any new introduction of pollutants into the treatment works from a source which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and
 2. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source which was introducing pollutants into the treatment works at the time of issuance of the permit.
 3. For the purposes of this section, adequate notice shall include information on:

- a. The quality and quantity of effluent to be introduced into such treatment works; and
- b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged.

B. Control of Undesirable Pollutants. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:

1. Wastewaters at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency; and
2. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge of such volume or strength as to cause interference in the treatment works.

C. Changes in Discharge of Toxic Substances. Notification shall be provided to the Director and ADEC as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 µg/l);
 - b. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500 µg/l);

- b. One milligram per liter (1 mg/l) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- d. The level established by the Director in accordance with 40 CFR 122.44(f).

D. Planned Changes. The permittee shall give notice to the Director and ADEC as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- 1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or
- 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Part IV.C.1.; or
- 3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

E. Anticipated Noncompliance. The permittee shall also give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

F. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.

H. Duty to Provide Information. The permittee shall furnish to the Director and ADEC, within a reasonable time, any information which the Director or ADEC may request to determine whether cause exists for modifying, revoking and

reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director or ADEC, upon request, copies of records required to be kept by this permit.

- I. **Other Information.** When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director or ADEC, it shall promptly submit such facts or information.
- J. **Signatory Requirements.** All applications, reports or information submitted to the Director and ADEC shall be signed and certified.
 1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer.
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
 2. All reports required by the permit and other information requested by the Director or ADEC shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Director and ADEC, and
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
 3. Changes to authorization. If an authorization under paragraph IV.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV.J.2. must be submitted to the Director and ADEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- K. Availability of Reports.** Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director and ADEC. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.
- L. Oil and Hazardous Substance Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.
- M. Property Rights.** The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- N. Severability.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- O. Transfers.** This permit may be automatically transferred to a new permittee if:
 1. The current permittee notifies the Director and ADEC at least 30 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit.

If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

P. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

Q. Reopener Clause

1. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Act, as amended, if an effluent standard, limitation, or requirement so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any condition in the permit; or
 - b. Controls any pollutant or disposal method not addressed in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

2. This permit may be reopened to adjust any effluent limitations if future water quality studies, waste load allocation determinations, or changes in water quality standards show the need for different requirements.