

**FEDERAL COMMUNICATIONS COMMISSION****47 CFR Part 15****Radio Frequency Devices; Interpretations of Rules for Computing Devices.****AGENCY:** Federal Communications Commission.**ACTION:** Public notice; Interpretations of FCC Rules.

**SUMMARY:** This document announces the availability of a bulletin that is a compilation of questions and answers culled from letters received by the FCC. The answers set out in the bulletin consist of a book of interpretations of the computer rules contained in Part 15 Subpart J which had been adopted in 1979 and were revised in 1980 and 1981. The questions and answers are issued as a bulletin to make these interpretations available to the general public.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554

**FOR FURTHER INFORMATION CONTACT:** Mr. Art Wall, Office of Science and Technology, RF Devices Branch, Room 8302, Washington, D.C. 20554 (202) 653-8247

**Office of Science and Technology Issues Bulletin on Interpretations of Rules for Computing Devices**

The Commission's Office of Science and Technology has issued Bulletin OST 52 "Interpretations of FCC Rules for Computing Devices (Part 15 Subpart J)."

In September of 1979, in Docket 20780, the Commission adopted regulations designed to control the interference potential to radio and TV reception caused by computing devices. The regulations were revised on reconsideration in April of 1980. The rules for computing devices are set forth in Part 15 Subpart J.

In May 1980, a panel was established to answer inquiries requesting interpretation of the rules for computing devices. The panel has received and responded to numerous such inquiries.

Bulletin OST 52 summarizes, in representative question and answer form, the interpretations made by the computing device panel. The questions and answers are grouped into four categories for easy reference: classification, compliance, measurements and labelling.

OST 52 is available from the Commission's Office of Public Affairs, Consumer Assistance and Information Division at 1991 M St., NW, Washington, DC 20554, telephone (202) 632-7260.

Additional questions concerning OST 52 or the computing device regulations should be directed to the Chairman of the Computing Device Panel, Office of Science and Technology, Federal Communications Commission, Washington, DC 20554, telephone (202) 653-8247

Federal Communications Commission.  
William J. Tricarico,  
Secretary.

[FR Doc. 81-21891 Filed 7-24-81; 8:45 am]  
BILLING CODE 6712-01-M

**DEPARTMENT OF TRANSPORTATION****Research and Special Programs Administration****49 CFR Part 195****[Amdt. 195-22; Docket PS-70]****Transportation of Liquids by Pipeline****AGENCY:** Materials Transportation Bureau (MTB).**ACTION:** Final rule.

**SUMMARY:** This final rule amends the liquid pipeline safety regulations in Part 195 to conform with and reflect its issuance under the authority of the Hazardous Liquid Pipeline Safety Act of 1979 (Title II of Pub. L. 96-129, November 30, 1979) (HLPESA) and incorporates a number of HLPESA provisions into Part 195. Briefly, this document:

1. Cites the HLPESA as the statutory authority for Part 195;
2. Incorporates HLPESA terminology and definitions into Part 195;
3. Restricts the application of Part 195 to pipelines used for moving petroleum, petroleum products, or anhydrous ammonia in interstate or foreign commerce.
4. Distinguishes interstate and intrastate pipeline facilities;
5. Increases from \$1,000 to \$5,000 the dollar amount of property damage that triggers operator accident reporting;
6. Provides for the preparation, maintenance, and carrying out of inspection and maintenance plans as required by the HLPESA; and
7. Incorporates current DOT organizational designation.

**DATES:** The effective date is July 27, 1981. Comments received by October 23, 1981, will be considered. Late filed comments will be considered to the extent practicable.

**ADDRESS:** Comments should identify the docket number and be submitted in triplicate to Dockets Branch, Room 8428, Department of Transportation, Materials

Transportation Bureau, 400 7th Street SW., Washington, D.C. 20590. Comments will be available to the public for review at the Dockets Branch location between 8:30 a.m. and 5:00 p.m. each working day.

**FOR FURTHER INFORMATION CONTACT:** Frank Robinson, (202) 426-2392.

**SUPPLEMENTARY INFORMATION:** Because this document sets forth policy decisions and interpretations and does not impose any new requirements, it is being made effective in less than 30 days after publication.

Although the amendments to Part 195 made by this document are final as published, any interested person may submit written views and comments with respect to matters which are affected by the document. Such comments will be carefully considered and may provide the basis for further amendments to Part 195.

The HLPESA established a new statutory basis for MTB's liquid pipeline safety regulatory program. The Transportation of Explosives Act (18 U.S.C. 831-835) (TOEA), which previously authorized the program, was repealed by § 216(b) of the HLPESA.

Although § 218(a) of the HLPESA permits the Part 195 liquid pipeline regulations to continue in effect as though issued under the authority of the HLPESA, this document is necessary for Part 195 to expressly reflect the new terminology and program direction embodied in the HLPESA.

**Scope and Applicability.** Before this amendment, the Scope section (§ 195.1) stated that Part 195 applied to the pipeline transportation in interstate or foreign commerce of all hazardous materials subject to 49 CFR Parts 172 and 173 and petroleum or petroleum products except for pipelines carrying water or gas, gravity flow pipelines, certain low stress level pipelines, rural onshore gathering lines (although accident reports have been required for these lines), and certain offshore pipelines located on the Outer Continental Shelf (OCS) that are regulated by the Department of the Interior. The regulated pipeline systems included different types of storage facilities named in the regulations that were part of the overall system.

As described in detail below under item 1, the Scope section of Part 195 has been divided and restated as new § 195.0—Scope—and § 195.1—Applicability—to conform to HLPESA terminology and to more clearly spell out jurisdictional exclusions. In addition, as discussed under item 2, the jurisdiction of Part 195 in terms of

liquids being transported, is limited to three categories of commodities. Storage subject to regulations is covered under item 3.

1. *Transportation Subject to Regulation.* Section 203(a) of the HLPESA authorizes the regulation of the "transportation of hazardous liquids" and "pipeline facilities"

"Transportation of hazardous liquids" is defined in Section 202(3) of the HLPESA to mean \* \* \*

The movement of hazardous liquids by pipeline or their storage incidental to such movement, in or affecting interstate or foreign commerce; except that it shall not include any such movement through gathering lines in rural locations or onshore production, refining, or manufacturing facilities or storage or implant piping systems associated with any such facilities.

The extent to which reissued Part 195 is an exercise of this regulatory authority is set forth in restated § 195.1. Paragraph (a) of § 195.1 lists the pipeline facilities and associated transportation to which Part 195 applies. That list is limited to pipeline facilities used in transporting hazardous liquids in interstate or foreign commerce and facilities on the OCS. The reasons for this limitation, an explanation of the terms employed to describe interstate pipeline facilities and MTB's plans for extending application of Part 195 to intrastate facilities, are discussed later in this preamble.

Paragraph (b) of restated § 195.1 lists specific activities and facilities which by statute or administrative decision are excluded from the application of Part 195. This list includes the HLPESA Section 202(3) exception clause. The exception for rural gathering lines is stated in § 195.1(b)(4) and the exception for onshore production, refining, and manufacturing facilities, and storage and implant piping associated with such facilities is stated in § 195.1(b)(6).

2. *Regulated Liquids.* Section 202 of the HLPESA defines a "hazardous liquid" to mean—

(a) petroleum or any petroleum product, and

(b) any substance or material which is in a liquid state (excluding liquefied natural gas) when transported by pipeline facilities, and which as determined by the Secretary, may pose an unreasonable risk to life or property when transported by pipeline facilities.

Under this definition, petroleum and petroleum products are required to be subject to Part 195 regulations, and the Secretary is vested with discretionary authority to apply the regulations to other substances and materials. By this amendment, the MTB is, for the immediate future, limiting the

application of Part 195 to petroleum, petroleum products and anhydrous ammonia.

The MTB takes this action because the hazards associated with anhydrous ammonia are well known and because it is the principal hazardous liquid in addition to petroleum and petroleum products transported by interstate pipeline facilities. The extent and nature of the risks of pipeline movements of other liquid materials need to be examined and an affirmative determination made concerning which, if any, pose the kind of risk that would justify classifying them as "hazardous liquids" for purposes of pipeline safety regulation. As MTB makes determinations to extend the coverage of Part 195 to other hazardous liquids, such determinations will be made through future public rulemaking proceedings.

The MTB's decision to limit the coverage of Part 195 to petroleum, petroleum products, and anhydrous ammonia is reflected in the new definition of "hazardous liquid" added to § 195.2—Definitions, and incorporation of that term in appropriate provisions throughout Part 195.

Consistent with MTB's reasons for limiting the number of materials classed as "hazardous liquids" in Part 195, this amendment revokes the requirements of § 195.6 relating to notification of intent to transport materials other than petroleum or petroleum products and Secretarial review of such transport.

3. *Storage Subject to Regulation.* MTB's authority to establish minimum Federal hazardous liquid pipeline safety standards under the HLPESA extends to "the movement of hazardous liquids by pipeline, or their storage incidental to such movement" (§ 202(3) of the HLPESA) (italic added). In referring to this provision, the Senate report that accompanied the HLPESA states that, "It is not intended that authority over storage facilities extend to storage in marine vessels or storage other than those which are incidental to pipeline transportation." (Sen. Rpt. 96-182, 1st Sess., 96th Cong. (1979), p. 18.) Earlier laws had vested the Department of Transportation with extensive authority to prescribe safety standards governing the movement of hazardous liquids in seagoing vessels, barges, rail cars, trucks or aircraft and storage incidental to those forms of transportation. From the words of the new HLPESA and the related Senate report language, it is clear that the Congress did not want to duplicate or overlap any of those earlier laws. Thus, HLPESA regulatory authority over storage does not extend to any form of transportation other than

pipeline or to any storage or terminal facilities that are used exclusively for transfer of hazardous liquids in or between any of the other forms of transportation unless that storage or terminal facility is also "incidental" to a pipeline which is subject to the HLPESA. These storage and terminal facilities are expressly excluded from the coverage of Part 195 by a new § 195.1(b)(7).

It is equally clear to the MTB that its HLPESA authority to prescribe and enforce safety standards with respect to storage "incidental" to the movement of hazardous liquids by pipeline is far broader than it is currently exercising in Part 195. For example, although the MTB does not have any immediate plans for such application, the HLPESA would authorize minimum Federal design, construction, testing, operating and maintenance standards for hazardous liquid pipeline terminal tank farms and the various forms of underground storage.

Since its issuance in 1969, Part 195 has applied to storage called "breakout tankage" by virtue of the inclusion of that term in the definition of "pipeline system" or "pipeline." A number of specific provisions in Part 195 have imposed limited substantive requirements on storage called "above ground storage tanks," "storage vessels" and "tank farms." At some future date, the MTB anticipates raising with the newly established advisory committee, the Technical Hazardous Liquid Pipeline Safety Standards Committee, questions as to the adequacy of the storage provisions in Part 195 and the possible need for changes in substance or coverage of those provisions.

Meanwhile, the MTB believes that it should try to make Part 195 more precise regarding the kinds of storage to which that Part applies and at the same time not extend its application to any storage not previously covered. It is the MTB's intention that current applicability of Part 195 to storage be limited to tanks used for the following two kinds of storage functions. First, tanks used to relieve surges in a hazardous liquid pipeline. This is sometimes called working tankage or a form of operating tankage. Second, tanks used to receive hazardous liquid from a pipeline and store it temporarily for reinjection into a pipeline for continued transportation. This type of storage aids in the dispatching of different types and grades of hazardous liquids through a pipeline system. A new definition of "breakout tank," which includes both of these functional categories of storage tanks, has been added to § 195.2 and the substantive provisions in §§ 195.132,

195.260(b), 195.264, 195.414 (a) and (c), 195.428(b), 195.430, 195.432, 195.434, 195.436 and 195.438 have been adjusted to reflect this new term.

**Definitions.** A number of other changes have been made in the list of definitions in § 195.2 to comport with the provisions of the HLPSPA. A definition of "person" has been taken verbatim from the HLPSPA. A definition of "pipeline facility" has been added which tracks the HLPSPA definition of "pipeline facilities" but omits phrases that are not necessary for the purposes of Part 195.

The term "carrier" has been replaced with the term "operator" throughout Part 195 and the definition of "carrier" in § 195.2 deleted and replaced with a definition of "operator." These changes reflect the jurisdictional shift from the TOEA (pipeline carriers engaged in interstate commerce) to the HLPSPA (persons who engage in transporting hazardous liquids by pipeline in or affecting interstate or foreign commerce).

**Distinction Between Interstate and Intrastate Pipeline Facilities.** The scope of the new regulatory authority under the HLPSPA is broader than that authorized by the TOEA. TOEA coverage was limited to interstate hazardous liquid pipeline carriers. Under the TOEA, only those intrastate hazardous liquid pipeline activities carried out by interstate pipeline carriers were subject to regulation. The HLPSPA authorizes the regulation of interstate and intrastate hazardous liquid pipelines and pipeline facilities.

Section 205 of the HLPSPA provides for State agencies to assume a major role in the regulation of intrastate hazardous liquid pipelines, paralleling the role for State agencies regarding natural gas pipelines under the Natural Gas Pipeline Safety Act of 1968. The § 205 program is to be a cooperative effort, with State agencies adopting and enforcing applicable Federal regulations under State laws.

For this intended Federal-State cooperative program to function properly, it is necessary that there be a clear delineation between what is interstate (subject to exclusive Federal jurisdiction) and what is intrastate (eligible for continuation or assumption of State jurisdiction). To this end, the MTB reviewed examples of what it believes are the most frequent and likely configurations of liquid pipelines and pipeline facilities and considered various ways of cataloging or classifying them as either interstate or intrastate. As a result, the MTB has concluded that the inventory of liquid pipelines that have been identified as being subject to the economic regulatory jurisdiction of

the Federal Energy Regulatory Commission (FERC) (and its predecessor the Interstate Commerce Commission) closely equates to the HLPSPA category of pipelines used for the movement of hazardous liquids in interstate or foreign commerce.

The MTB has been advised by the FERC that it does not exercise fully this jurisdiction, having administratively exempted some interstate pipelines (e.g. private carrier pipelines) from some or all of its economic regulatory requirements. These exempted pipelines are nevertheless interstate and subject to FERC jurisdiction. They are also regarded by MTB as subject to Federal safety regulation as interstate pipelines.

This administrative reliance on the interstate-intrastate distinctions established under preexisting Federal economic regulatory statutes for applying Federal safety standards is consistent with what is required by law in the case of natural gas pipelines. The NGPSA expressly defines interstate natural gas pipelines for safety regulatory purposes as being those that are subject to the economic regulation of the FERC under the Natural Gas Act. This consistency of definition between Federal agencies and between economic and safety regulatory programs serves to avoid or minimize confusion for the private sector and government alike.

All of the hazardous liquid pipeline facilities and their associated transportation of hazardous liquids that are subject to FERC jurisdiction under the Interstate Commerce Act are also subject to MTB safety regulation as interstate pipeline facilities and interstate transportation of hazardous liquids under the HLPSPA. There are, however, additional crude oil pipelines located on the OCS which do not fall within the FERC's economic regulatory jurisdiction. The MTB's safety responsibility for oil pipelines on the OCS is not so limited. Under § 21(a) of the Deepwater Port Act of 1974, the MTB is required to "establish and enforce such standards and regulations as may be necessary to assure the safe construction and operation of oil pipelines on the Outer Continental Shelf."

Accordingly, revised § 195.1(a) provides that Part 195 applies to pipelines which are subject to FERC jurisdiction and pipelines which originate on the OCS.

**Regulation of Intrastate Pipelines.** Section 203 of the HLPSPA reserves to the Federal government full and exclusive safety regulatory responsibility for interstate hazardous liquid pipeline facilities. Part 195 now sets forth the

safety standards for that category of pipeline facilities.

Section 205 of the HLPSPA, on the other hand, invites the States to assume responsibility for enforcement of the Federal safety standards for intrastate hazardous liquid pipeline facilities. State participation in enforcement can occur in either of two ways. A State agency may submit to the MTB an annual certification that it has adopted the Federal standards under State law and is conducting enforcement activities, or in situations where a State agency does not submit such certification, it may, through a written agreement with the MTB, carry out an inspection program to determine compliance with the Federal standards.

In the case of an agreement entered into under § 205(b), the substitution of State enforcement for Federal enforcement is not total. Under an agreement, a State agency carries out certain record maintenance, reporting, inspection, and approval functions with respect to intrastate facilities, and is required to notify the MTB of any violation or probable violation of a Federal safety standard which it discovers. Upon receiving such notification, the responsibility for subsequent enforcement action for those intrastate facilities rests with the Secretary.

On the other hand, the substitution of State enforcement for Federal enforcement under § 205(a) certification is nearly complete. In part, § 205(a) reads, "Except for section 215 and except as otherwise provided in this section, the authority of the Secretary [MTB] \* \* \* to prescribe safety standards and enforce compliance with such standards shall not apply to intrastate pipeline facilities or the transportation of hazardous liquids associated with such facilities, when the safety standards and practices applicable to same are regulated by a State agency which submits to the Secretary [MTB] an annual certification \* \* \*"

Fifteen States currently have some form of State authority to conduct hazardous liquid pipeline safety regulatory programs. In many cases, adjustments in a State's program or the supporting State law will be necessary to qualify it for full § 205(a) certification. In addition to these 15 States, 27 other States have indicated that they do not now have regulatory authority over hazardous liquid pipelines but either (1) expressed interest in participating in a Federal-State program, or (2) intend to seek State laws to assert safety regulatory authority over hazardous

liquid pipelines, or (3) are undecided. Ten States have indicated that they do not assert safety jurisdiction over hazardous liquid pipelines, do not plan to seek any such authority and are not interested in any related Federal-State program. Many States have very limited intrastate pipeline mileage within their boundaries and do not see a need to assume the safety regulatory task. MTB's analysis of the intrastate liquid pipeline activity in the various States suggests that the Federal-State safety program for intrastate pipelines would involve the direct participation of 19 to 32 States.

Nevertheless, the MTB believes that all of the States should be allowed the opportunity to consider the offer presented by the HLPESA and, if they find it in their interest, to assume the noted regulatory responsibilities in an orderly fashion.

From its experience with a similar Federal-State cooperative program for intrastate natural gas pipelines, the MTB recognizes that a period of at least two years is required for the States to amend or adopt the necessary authorizing statutes. Therefore, it is the intention of the MTB to withhold Federal application of Part 195 to intrastate pipelines for a two-year period. This will allow time for States with existing liquid pipeline laws and inspection programs to make necessary adjustments without the threat of Federal preemption. It will also allow those States which do not have programs the time to consider whether they should assume the responsibility or leave it to the Federal government.

MTB encourages each of the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico during the next two years to undertake the responsibility for inspection and enforcement of safety standards for the intrastate hazardous liquid pipelines within their boundaries. During this period, the MTB is prepared to assist any interested State in working toward qualifying it for participation under § 205.

**Accident Reporting.** While the HLPESA does not specifically address operators' obligations to report accidents, it sets out certain accident reporting requirements to be followed by State agencies certified under § 205(a). Section 205(a) requires in part that a State's annual certification include a report showing all accidents or incidents reported during the preceding 12 months involving property damage exceeding \$5,000, whether or not sustained by the pipeline operator subject to the State's jurisdiction.

The \$5,000 that triggers the State agency report under § 205 was

consistent with the State agency reporting requirements under § 5(a) of the Natural Gas Pipeline Safety Act of 1968, as amended (49 U.S.C. 1674). By the Pipeline Safety Act of 1979 (Pub. L. 96-129; November 30, 1979), the level of property damage required to trigger State reporting under § 5(a) of the NGPSA was increased from \$1,000 to \$5,000.

Subpart B of Part 195 currently requires operators to submit a written report (DOT Form 7000-1) to the Department on a failure in a liquid pipeline system in which there is a release of the liquid transported resulting in property damage of at least \$1,000 to other than the operator's facilities, based on actual cost or reliable estimates.

MTB is amending § 195.50 by changing that threshold to \$5,000 whether or not sustained by an operator so that the Federal reporting requirements will be consistent with those prescribed under § 205(a) of the HLPESA for State agency reporting. This amendment to the § 195.50 reporting requirement has been approved by the OMB in accord with the Paperwork Reduction Act of 1980.

**Inspection and Maintenance Plans.** Section 210 of the HLPESA requires operators of hazardous liquid pipeline facilities to prepare, maintain, and carry out written plans for inspection and maintenance of such facilities. The plan must be in accordance with regulations prescribed by DOT or, where a certification or agreement pursuant to § 205 of the HLPESA is in effect, by the appropriate State agency.

The section also sets out a procedure to be used by DOT or the appropriate State agency in requiring an operator's plan to be revised to achieve safe operation of the affected pipeline facilities, when its plan is found to be inadequate.

Existing § 195.402, Procedural manual for operations, maintenance, and emergencies, is considered by MTB to satisfy the requirement for Federal regulations made by § 210 of the HLPESA. Section 195.402 also describes the procedure that will be followed by MTB in requiring the facility operator to revise an inadequate procedural manual. For these reasons, MTB gives notice by this reissuance that—

1. Operator compliance with existing § 195.402 will constitute compliance with the HLPESA requirements for the preparation, maintenance, and carrying out of inspection and maintenance plans for hazardous liquid facilities.

2. MTB will follow the procedures established by § 195.402(b) for requiring revisions to operator plans established under § 195.402.

**Organizational Designations.** In subpart B of Part 195, Accident Reporting, §§ 195.54, 195.58, and 195.62, make reference to the "Director, Office of Pipeline Safety" as a mailing address for sending operator accident reports to DOT. To comport with current DOT organizational responsibilities, that reference in each of those sections is amended by this document to read, "Chief, Information Systems Division, Transportation Programs Bureau."

An analysis of the impacts of this amendment, including costs and benefits, is in the docket file. I have determined from this analysis that this amendment is not a "major rule" as that term is defined in E. O. 12291 because there should be negligible cost increases or other adverse effects from the amendment.

In consideration of the foregoing, Part 195 of Title 49, Code of Federal Regulations, is revised with amendments as set forth below.

(Sec. 203, Pub. L. 96-129, 93 Stat. 1004, 49 U.S.C. 2002, 49 CFR 1.53 and Appendix A to Part 1).

Issued in Washington, D.C., on July 20, 1981.

L. D. Santman,

Director, Materials Transportation Bureau.

## PART 195—TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE

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Authority: Sec. 203, Pub. L. 96-129, 93 Stat. 1004, 49 U.S.C. 2002; 49 CFR 1.53 and Appendix A to Part 1.

#### Subpart A—General

##### § 195.0 Scope.

This part prescribes safety standards and accident reporting requirements for pipeline facilities used in the transportation of hazardous liquids.

##### § 195.1 Applicability.

(a) Except as provided in paragraph (b) of this section, this part applies to the following pipeline facilities and the transportation of hazardous liquids associated with those facilities—

(1) Those which are subject to the jurisdiction of the Federal Energy Regulatory Commission under the authority vested in the Commission by section 402(b) of the Department of Energy Organization Act (91 Stat. 584, 42 U.S.C. 7172(b)), and

(2) Those which are on the Outer Continental Shelf.

(b) This part does not apply to—

(1) Transportation of a hazardous liquid that is transported in a gaseous state;

(2) Transportation of a hazardous liquid through a pipeline by gravity;

(3) Transportation of a hazardous liquid through pipelines that operate at a stress level of 20 percent or less of the specified minimum yield strength of the line pipe;

(4) Transportation of a hazardous liquid in onshore pipelines in rural areas between a production facility and an operator trunkline reception point;

(5) Transportation of a hazardous liquid in offshore pipelines which are located upstream from the outlet flange of each facility on the Outer Continental Shelf where hydrocarbons are produced or where produced hydrocarbons are first separated, dehydrated, or otherwise processed whichever facility is farther downstream;

(6) Transportation of a hazardous liquid through onshore production, refining, or manufacturing facilities or storage or in-plant piping systems associated with such facilities;

(7) Transportation of a hazardous liquid by vessel, aircraft, tank truck, tank car, or other vehicle or terminal facilities used exclusively to transfer

hazardous liquids between such modes of transportation.

##### § 195.2 Definitions.

As used in this part—

"Barrel" means a unit of measurement equal to 42 U.S. standard gallons.

"Breakout tank" means a tank used to (a) relieve surges in a hazardous liquid pipeline system or (b) receive and store hazardous liquid transported by a pipeline for reinjection and continued transportation by pipeline.

"Component" means any part of a pipeline which may be subjected to pump pressure including, but not limited to, pipe, valves, elbows, tees, flanges, and closures.

"Hazardous liquid" means petroleum, petroleum products, and anhydrous ammonia.

"Highly volatile liquid" or "HVL" means a hazardous liquid which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276 kPa (40 psia) at 37.8° C (100° F).

"Line section" means a continuous run of pipe between adjacent pressure pump stations, between a pressure pump station and terminal or breakout tanks, between a pressure pump station and a block valve, or between adjacent block valves.

"Nominal wall thickness" means the wall thickness listed in the pipe specifications.

"Offshore" means beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

"Operator" means a person who owns or operates pipeline facilities.

"Person" means any individual, firm, joint venture, partnership, corporation, association, State, municipality, cooperative association, or joint stock association, and includes any trustee, receiver, assignee, or personal representative thereof.

"Pipe" or "line pipe" means a tube, usually cylindrical, through which a hazardous liquid flows from one point to another.

"Pipeline" or "pipeline system" means all parts of a pipeline facility through which a hazardous liquid moves in transportation, including, but not limited to, line pipe, valves and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

"Pipeline facility" means new and existing pipe, rights-of-way, and any

equipment, facility, or building used in the transportation of hazardous liquids.

"Secretary" means the Secretary of Transportation or any person to whom he has delegated authority in the matter concerned.

"Specified minimum yield strength" means the minimum yield strength, expressed in pounds per square inch, prescribed by the specification under which the material is purchased from the manufacturer.

"Stress level" means the level of tangential or hoop stress, usually expressed as a percentage of specified minimum yield strength.

"Surge pressure" means pressure produced by a change in velocity of the moving stream that results from shutting down a pump station or pumping unit, closure of a valve, or any other blockage of the moving stream.

**§ 195.3 Matter incorporated by reference.**

(a) There are incorporated by reference in this part all materials referred to in this part. Those materials are hereby made a part of this regulation. Applicable editions are listed in paragraph (c) of this section in parentheses following the title of the referenced material. Earlier editions listed in previous editions of this section may be used for components manufactured, designed, or installed in accordance with those earlier editions at the time they were listed. The user must refer to the appropriate previous edition of 49 CFR for a listing of the earlier listed editions.

(b) All incorporated materials are available for inspection in the Materials Transportation Bureau, Washington, D.C., and at the Office of the Federal Register, 1100 L Street, N.W., Washington, D.C. These materials have been approved for incorporation by reference by the Director of the Federal Register. In addition, materials incorporated by reference are available as follows:

(1) American Petroleum Institute (API), 2101 L Street, N.W., Washington, D.C. 20037, or 211 North Avery, Suite 1700, Dallas, Texas 75201.

(2) The American Society of Mechanical Engineers (ASME), United Engineering Center, 345 East 47th Street, New York, N.Y. 10017

(3) Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), 5203 Leesburg Pike, Suite 502, Falls Church, Va. 22041.

(4) American National Standards Institute (ANSI), 1430 Broadway, New York, N.Y. 10018.

(5) American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pa. 19103.

(c) The full title for the publications incorporated by reference in this part are as follows:

(1) American Petroleum Institute:  
(i) API Specification 6D "API Specification for Pipeline Valves," which may be obtained from the Dallas office (1977).

(ii) API Specification 1104 "Standard for Welding Pipe Lines and Related Facilities" (1980).

(iii) API Specification 5L "API Specification for Line Pipe" (1980).

(iv) API Specification 5LS "API Specification for Spiral-Weld Line Pipe" (1980).

(v) API Specification 5LX "API Specification for High-Test Line Pipe" (1980).

(2) ASME Code is the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section VIII, "Pressure Vessels, Division 1" (1977).

(3) Manufacturers Standardization Society of the Valve and Fitting Industry:

MSS SP-75, Specification for High-Test Wrought Weldings Fittings (1976).

(4) American National Standards Institute:

(i) ANSI B16.9 "Factory Made Wrought Steel Butt-Welding Fittings" (1978).

(ii) ANSI B31.4 "Liquid Petroleum Transportation Piping Systems" (1979).

(5) American Society for Testing and Materials:

(i) ASTM Specification A53 "Standard Specification for Welded and Seamless Steel Pipe" (1979).

(ii) ASTM Specification A106 "Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service" (1979b).

(iii) ASTM Specification A134 "Standard Specification for Electric-Fusion (Arc)-Welded Steel Plate Pipe, Size 16 in. and Over" (1974).

(iv) ASTM Specification A135 "Standard Specification for Electric-Resistance Welded Steel Pipe" (1979).

(v) ASTM Specification A139 "Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe, Sizes 4 inch and over" (1974).

(vi) ASTM Specification A671 "Electric-Fusion-Welded Steel Pipe For Atmospheric and Lower Temperatures" (1977).

(vii) ASTM Specification A672 "Electric-Fusion-Welded Steel Pipe For High Pressure Service At Moderate Temperatures" (1979).

(viii) ASTM Specification A691 "Carbon and Alloy Steel Pipe Electric-Fusion-Welded For High Pressure Service At High Temperatures" (1979).

(ix) ASTM Specification A211 "Standard Specification for Spiral-Welded Steel or Iron Pipe" (1975).

(x) ASTM Specification A333 "Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service" (1979).

(xi) ASTM Specification A381 "Standard Specification for Metal-Arc-Welded Steel Pipe for High Pressure Transmission Systems" (1979).

**§ 195.4 Compatibility necessary for transportation of hazardous liquids.**

No person may transport any hazardous liquid unless the hazardous liquid is chemically compatible with both the pipeline, including all components, and any other commodity that it may come into contact with while in the pipeline.

**§ 195.5 Conversion to service subject to this part.**

(a) A steel pipeline previously used in service not subject to this part qualifies for use under this part if the operator prepares and follows a written procedure to accomplish the following:

(1) The design, construction, operation, and maintenance history of the pipeline must be reviewed and, where sufficient historical records are not available, appropriate tests must be performed to determine if the pipeline is in a satisfactory condition for safe operation.

(2) The pipeline right-of-way, all aboveground segments of the pipeline, and appropriately selected underground segments must be visually inspected for physical defects and operating conditions which reasonably could be expected to impair the strength or tightness of the pipeline.

(3) All known unsafe defects and conditions must be corrected in accordance with this part.

(4) The pipeline must be tested in accordance with the Subpart E of this part to substantiate the maximum allowable operating pressure permitted by § 195.406.

(b) A pipeline which qualifies for use under this section need not comply with the corrosion control requirements of this part until 12 months after it is placed in service, notwithstanding any earlier deadlines for compliance. In addition to the requirements of Subpart F of this part, the corrosion control requirements of Subpart D apply to each pipeline which substantially meets those requirements before it is placed in service or which is a segment that is replaced, relocated, or substantially altered.

(c) Each operator must keep for the life of the pipeline a record of the investigations, tests, repairs, replacements, and alterations made under the requirements of paragraph (a) of this section.

§ 195.6 [Reserved]

§ 195.8 Transportation of hazardous liquids in pipelines constructed with other than steel pipe.

No person may transport any hazardous liquid through a pipe that is constructed after October 1, 1970, of material other than steel unless the person has notified the Secretary in writing at least 90 days before the transportation is to begin. The notice must state the chemical name, common name, properties, and characteristics of the hazardous liquid to be transported and the material used in construction of the pipeline. If the Secretary determines that the transportation of the hazardous liquid in the manner proposed would be unduly hazardous, he will, within 90 days after receipt of the notice order the person that gave the notice, in writing, not to transport the hazardous liquid in the proposed manner until further notice.

§ 195.10 Responsibility of operator for compliance with this Part.

An operator may make arrangements with another person for the performance of any action required by this part. However, the operator is not thereby relieved from the responsibility for compliance with any requirement of this part.

**Subpart B—Accident Reporting**

§ 195.50 Scope.

This subpart prescribes rules governing the reporting of any failure in a pipeline system subject to this part in which there is a release of the hazardous liquid transported resulting in any of the following:

(a) Explosion or fire not intentionally set by the operator.

(b) Loss of 50 or more barrels of liquid.

(c) Escape to the atmosphere of more than five barrels a day of highly volatile liquids.

(d) Death of any person.

(e) Bodily harm to any person resulting in one or more of the following:

(1) Loss of consciousness.

(2) Necessity to carry the person from the scene.

(3) Necessity for medical treatment.

(4) Disability which prevents the discharge of normal duties or the pursuit of normal activities beyond the day of the accident.

(f) Estimated property damage to the property of the operator or others, or both, exceeding \$5,000.

§ 195.52 Telephonic notice of certain accidents.

(a) At the earliest practicable moment following discovery of a release of the hazardous liquid transported resulting in an event described in § 195.50, the operator of the system shall give notice, in accordance with paragraph (b) of this section, of any failure that—

(1) Caused a death or a personal injury requiring hospitalization;

(2) Resulted in either a fire or explosion not intentionally set by the operator;

(3) Caused estimated damage to the property of the operator or others, or both, exceeding \$5,000;

(4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or

(5) In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section.

(b) Reports made under paragraph (a) of this section are made by telephone to area code 202, 426-0700 and must include the following information:

(1) Name and address of the operator.

(2) Name and telephone number of the reporter.

(3) The location of the failure.

(4) The time of the failure.

(5) The fatalities and personal injuries, if any.

(6) All other significant facts known by the operator that are relevant to the cause of the failure or extent of the damages.

§ 195.54 Accident reporting.

Each carrier that experiences an accident that is required to be reported under this subpart shall, as soon as practicable but not later than 15 days after discovery of the accident, prepare and file an accident report, on DOT Form 7000-1 or a facsimile, with the Chief, Information Systems Division, Transportation Programs Bureau, Department of Transportation, Washington, D.C. 20590. The operator shall file two copies of each report and shall retain one copy at its principal place of business.

§ 195.56 Instructions for preparing DOT Form 7000-1.

(a) Each operator shall prepare each report of an accident on DOT Form

7000-1 or a facsimile, in accordance with the following instructions:

(1) *General.* Each applicable item must be marked or filled in as fully and as accurately as information accessible to the operator at the time of filing the report will permit.

(2) *Part A.* Enter name as it is filed with the Federal Energy Regulatory Commission. If the operator's name is not filed with the Commission, enter the complete corporate name of the operator. Enter the address of the operator's principal place of business including zip code.

(3) *Part B, Item 1.* Enter the date the accident occurred or was discovered. If the accident was not discovered on the date it occurred, state this fact on the back of the form.

(4) *Part B, Item 2.* Enter the exact time in hours and minutes (i.e., 10:15) if known or a time range (i.e., 10:11) if exact time is not known. If the accident was not discovered on the date it occurred, enter the time it was discovered and state this fact, on the back of the form as in Part B, Item 1.

(5) *Part B, Item 3.* Enter all three names, State, county, city, or town, in or near which accident occurred.

(6) *Part B, Item 4.* Mark the appropriate box. If "other" is marked, state clearly on form what part of the pipeline system.

(7) *Part B, Item 5.* If the accident occurred in an uninhabited area, such as woods, cultivated field, swamp, etc., so state clearly on the form under Item 5. If not, attach a sketch to the form showing the part of the pipeline system where the accident occurred, and the location of the accident as related to significant landmarks. Each item shown on the sketch must be clearly and distinctly marked to identify it. Approximate distances from accident location to all landmarks shown on the sketch must be indicated.

(8) *Part C.* Mark the appropriate box or boxes. If applicable, mark more than one box. If "other" is marked, state clearly on form the exact origin of the release of the hazardous liquid.

(9) *Part D.* Mark the appropriate box. If "other" is marked, clearly state the cause of the accident.

(10) *Part E.* Indicate a number under each heading including "0" if none. Report deaths, even if previously reported in accordance with § 195.52.

(11) *Part F, Items 1 and 2.* Report only material in the pipeline system that was actually damaged such as pipe, valves, or fittings. Do not include cost of hazardous liquid which was lost due to the accident or fittings used during repair which became permanently

attached to the system. The dollar value of damage should be based on replacement at present day costs.

(12) *Part F, Items 3 and 4.* This is damage to property of operator or others. Dollar value must be actual or the best estimate available.

(13) *Part G, Item 1.* State the commonly used name of the hazardous liquid, such as fuel oil, regular gasoline, liquefied petroleum gas. If the hazardous liquid name is one not commonly used, state the name here and give a brief description of it under "Account of Accident by Responsible Official of Carrier."

(14) *Part G, Item 3.* State the year facility was installed or the best estimate possible. Pipe is excluded as the year of installation is required in Item 4 of Part H.

(15) *Part H.* Mark appropriate boxes and state information required in all items of this part only if the accident occurred in line pipe. If the accident occurred in any other part of the pipeline system, omit this part.

(16) *Part I.* Mark appropriate boxes and state information required in all items of this part if the accident was caused by corrosion in any component of the pipeline system. In Item 4, state the length of time between the type of tests, such as pipe-to-soil potential, stated in Item 5.

(17) *Part J.* Complete all three items only if the accident was caused by equipment rupturing the pipeline. In Item 2, all the information stated on the closest line marker must be shown.

(b) In addition to the requirements of paragraph (a) of this section, in the space provided after Part J, the operator shall enter an account of the accident containing the most reliable information to which the operator has access at the time of reporting, sufficiently detailed and complete to convey an understanding of the accident. This account may be continued on an extra sheet of paper if more space is needed.

(c) At the bottom of the back of DOT Form 7000-1, the operator shall state the name and title of the pipeline official responsible for compiling and filing the report along with the telephone number at which this official can be reached, and the date the report was completed.

**§ 195.58 Changes in or additions to accident report.**

Whenever an operator receives any changes in the information reported or additions to the original report on DOT Form 7000-1 it shall immediately file a supplemental report with the Chief, Information Systems Division, Transportation Programs Bureau,

Department of Transportation, Washington, D.C. 20590.

**§ 195.60 Operator assistance in investigation.**

If the Department of Transportation investigates an accident, the operator involved shall make available to the representative of the Department all records and information that in any way pertain to the accident, and shall afford all reasonable assistance in the investigation of the accident.

**§ 195.62 Supplies of accident report DOT Form 7000-1.**

Each operator shall maintain an adequate supply of forms that are a facsimile of DOT Form 7000-1 to enable it to promptly report accidents. The Department will, upon request, furnish specimen copies of the form. Requests should be addressed to the Chief, Information Systems Division, Transportation Programs Bureau, Department of Transportation, Washington, D.C. 20590.

**Subpart C—Design Requirements**

**§ 195.100 Scope.**

This subpart prescribes minimum design requirements for new pipeline systems constructed with steel pipe and for relocating, replacing, or otherwise changing existing systems constructed with steel pipe. However, it does not apply to the movement of line pipe covered by § 195.424.

**§ 195.102 Design temperature.**

Material for components of the system must be chosen for the temperature environment in which the components will be used so that the pipeline will maintain its structural integrity.

**§ 195.104 Variations in pressure.**

If, within a pipeline system, two or more components are to be connected at a place where one will operate at a higher pressure than another, the system must be designed so that any component operating at the lower pressure will not be overstressed.

**§ 195.106 Internal design pressure.**

(a) Internal design pressure for the pipe in a pipeline is determined in accordance with the following formula:

$$P = (2 St/D) \times E \times F$$

*P* = Internal design pressure in pounds per square inch gauge.

*S* = Yield strength in pounds per square inch determined in accordance with paragraph (b) of this section.

*t* = Nominal wall thickness of the pipe in inches. If this is unknown, it is determined in accordance with paragraph (c) of this section.

*D* = Nominal outside diameter of the pipe in inches.

*E* = Seam joint factor determined in accordance with paragraph (e) of this section.

*F* = A design factor of 0.72, except that a design factor of 0.60 is used for pipe, including risers, on a platform located offshore or on a platform in inland navigable waters, and 0.54 is used for pipe that has been cold worked to meet the specified minimum yield strength and is subsequently heated, other than by welding to 600° F. or more.

(b) The yield strength to be used in determining internal design pressure under paragraph (a) of this section is the specified minimum yield strength. If the specified minimum yield strength is not known, the yield strength is determined by performing all of the tensile tests of either API Standard 5L, 5LS, or 5LX on randomly selected test specimens with the following number of tests:

Pipe size	Number of tests
Less than 6 inches in outside diameter.	One test for each 200 lengths.
6 inches through 12½ inches in outside diameter.	One test for each 100 lengths.
Larger than 12½ inches in outside diameter.	One test for each 50 lengths.

If the average yield-tensile ratio exceeds 0.85, the yield strength of the pipe is taken as 24,000 p.s.i. If the average yield-tensile ratio is 0.85 or less, the yield strength of the pipe is taken as the lower of the following:

(1) Eighty percent of the average yield strength determined by the tensile tests.

(2) The lowest yield strength determined by the tensile tests.

(c) If the nominal wall thickness to be used in determining internal design pressure under paragraph (a) of this section is not known, it is determined by measuring the thickness of each piece of pipe at quarter points on one end. However, if the pipe is of uniform grade, size, and thickness, only 10 individual lengths or 5 percent of all lengths, whichever is greater, need be measured. The thickness of the lengths that are not measured must be verified by applying a gage set to the minimum thickness found by the measurement. The nominal wall thickness to be used is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness may not be more than 1.14 times the smallest measurement taken on pipe that is less than 20 inches in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe



that is 20 inches or more in outside diameter.

(d) The minimum wall thickness of the pipe may not be less than 87.5 percent of the value used for nominal wall thickness in determining the internal design pressure under paragraph (a) of this section. In addition, the anticipated external loads and external pressures that are concurrent with internal pressure must be considered in accordance with §§ 195.108 and 195.110 and, after determining the internal design pressure, the nominal wall thickness must be increased as necessary to compensate for these concurrent loads and pressures.

(e) The seam joint factor used in paragraph (a) of this section is determined in accordance with the following table:

Specification	Pipe class	Seam joint factor
ASTM A53	Seamless	1.00
	Electric resistance welded	1.00
	Furnace lap welded	0.80
	Furnace butt welded	0.60
ASTM A106	Seamless	1.00
	Electric fusion arc welded	0.80
ASTM A134	Electric fusion arc welded	0.80
ASTM A135	Electric resistance welded	1.00
ASTM A139	Electric fusion welded	0.80
ASTM A211	Spiral welded pipe	0.80
ASTM A333	Seamless	1.00
	Welded	1.00
ASTM A381	Double submerged arc welded	1.00
ASTM A671	Electric-fusion-welded	1.00
ASTM A672	Electric-fusion-welded	1.00
ASTM A691	Electric-fusion-welded	1.00
APL 5L	Seamless	1.00
	Electric resistance welded	1.00
	Electric flash welded	1.00
	Submerged arc welded	1.00
	Furnace lap welded	0.80
API 5LX	Seamless	1.00
	Electric resistance welded	1.00
	Electric flash welded	1.00
API 5LS	Submerged arc welded	1.00
	Electric resistance welded	1.00

The seam joint factor for pipe which is not covered by this paragraph must be approved by the Secretary

§ 195.108 External pressure.

Any external pressure that will be exerted on the pipe must be provided for in designing a pipeline system.

§ 195.110 External loads.

(a) Anticipated external loads (e.g., earthquakes, vibration, thermal expansion, and contraction must be provided for in designing a pipeline system. In providing for expansion and flexibility, section 419 of ANSI B31.4 must be followed.

(b) The pipe and other components must be supported in such a way that the support does not cause excess localized stresses. In designing attachments to pipe, the added stress to

the wall of the pipe must be computed and compensated for.

§ 195.112 New pipe.

Any new pipe installed in a pipeline system must comply with the following:

(a) The pipe must be made of steel of the carbon, low alloy-high strength, or alloy type that is able to withstand the internal pressures and external loads and pressures anticipated for the pipeline system.

(b) The pipe must be made in accordance with a written pipe specification that sets forth the chemical requirements for the pipe steel and mechanical tests for the pipe to provide pipe suitable for the use intended.

(c) Each length of pipe with an outside diameter of 4 inches or more must be marked on the pipe or pipe coating with the specification to which it was made, the specified minimum yield strength or grade, and the pipe size. The marking must be applied in a manner that does not damage the pipe or pipe coating and must remain visible until the pipe is installed.

§ 195.114 Used pipe.

Any used pipe installed in a pipeline system must comply with § 195.112 (a) and (b) and the following:

(a) The pipe must be of a known specification and the seam joint factor must be determined in accordance with § 195.106(e). If the specified minimum yield strength or the wall thickness is not known, it is determined in accordance with § 195.106 (b) or (c) as appropriate.

(b) There may not be any—

(1) Buckles;

(2) Cracks, grooves, gouges, dents, or other surface defects that exceed the maximum depth of such a defect. permitted by the specification to which the pipe was manufactured; or

(3) Corroded areas where the remaining wall thickness is less than the minimum thickness required by the tolerances in the specification to which the pipe was manufactured.

However, pipe that does not meet the requirements of paragraph (a)(3) of this section may be used if the operating pressure is reduced to be commensurate with the remaining wall thickness.

§ 195.116 Valves.

Each valve installed in a pipeline system must comply with the following:

(a) The valve must be of a sound engineering design.

(b) Materials subject to the internal pressure of the pipeline system, including welded and flanged ends, must be compatible with the pipe or fittings to which the valve is attached.

(c) Each part of the valve that will be in contact with the hazardous liquid stream must be made of materials that are compatible with each hazardous liquid that it is anticipated will flow through the pipeline system.

(d) Each valve must be both hydrostatically shell tested and hydrostatically seat tested without leakage to at least the requirements set forth in section 5 of API Standard 6D.

(e) Each valve other than a check valve must be equipped with a means for clearly indicating the position of the valve (open, closed, etc.).

(f) Each valve must be marked on the body or the nameplate, with at least the following:

- (1) Manufacturer's name or trademark.
- (2) Class designation or the maximum working pressure to which the valve may be subjected.
- (3) Body material designation (the end connection material, if more than one type is used).
- (4) Nominal valve size.

§ 195.118 Fittings.

(a) Butt-welding type fittings must meet the marking end preparation and the bursting strength requirements of ANSI B16.9 or MSS Standard Practice SP-75.

(b) There may not be any buckles, dents, cracks, gouges, or other defects in the fitting that might reduce the strength of the fitting.

(c) The fitting must be suitable for the intended service and be at least as strong as the pipe and other fittings in the pipeline system to which it is attached.

§ 195.120 Changes in direction: Provision for internal passage.

Each component of a main line system, other than manifolds, that change direction within the pipeline system must have a radius of turn that readily allows the passage of pipeline scrapers, spheres, and internal inspection equipment.

§ 195.122 Fabricated branch connections.

Each pipeline system must be designed so that the addition of any fabricated branch connections will not reduce the strength of the pipeline system.

§ 195.124 Closures.

Each closure to be installed in a pipeline system must comply with the ASME Boiler and Pressure Vessel Code, Section VIII, Pressure Vessels, Division 1, and must have pressure and temperature ratings at least equal to

those of the pipe to which the closure is attached.

**§ 195.126 Flange connection.**

Each component of a flange connection must be compatible with each other component and the connection as a unit must be suitable for the service in which it is to be used.

**§ 195.128 Station piping.**

Any pipe to be installed in a station that is subject to system pressure must meet the applicable requirements of this subpart.

**§ 195.130 Fabricated assemblies.**

Each fabricated assembly to be installed in a pipeline system must meet the applicable requirements of this subpart.

**§ 195.132 Above ground breakout tanks.**

Each above ground breakout tank must be designed to withstand the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads.

**Subpart D—Construction**

**§ 195.200 Scope.**

This subpart prescribes minimum requirements for constructing new pipeline systems with steel pipe, and for relocating, replacing, or otherwise changing existing pipeline systems that are constructed with steel pipe. However, this subpart does not apply to the movement of pipe covered by § 195.424.

**§ 195.202 Compliance with specifications or standards.**

Each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.

**§ 195.204 Inspection—general.**

Inspection must be provided to ensure the installation of pipe or pipeline systems in accordance with the requirements of this subpart. No person may be used to perform inspections unless that person has been trained and is qualified in the phase of construction he is to inspect.

**§ 195.206 Material inspection.**

No pipe or other component may be installed in a pipeline system unless it has been visually inspected at the site of installation to ensure that it is not damaged in a manner that could impair its strength or reduce its serviceability.

**§ 195.208 Welding of supports and braces.**

Supports or braces may not be welded directly to pipe that will be operated at a pressure of more than 100 p.s.i.g.

**§ 195.210 Pipeline location.**

(a) Pipeline right-of-way must be selected to avoid, as far as practicable, areas containing private dwellings, industrial buildings, and places of public assembly.

(b) No pipeline may be located within 50 feet of any private dwelling, or any industrial building or place of public assembly in which persons work, congregate, or assemble, unless it is provided with at least 12 inches of cover in addition to that prescribed in § 195.248.

**§ 195.212 Bending of pipe.**

(a) Pipe must not have a wrinkle bend.  
(b) Each field bend must comply with the following:

(1) A bend must not impair the serviceability of the pipe.

(2) Each bend must have a smooth contour and be free from buckling, cracks, or any other mechanical damage.

(3) On pipe containing a longitudinal weld, the longitudinal weld must be as near as practicable to the neutral axis of the bend unless—

(i) The bend is made with an internal bending mandrel; or

(ii) The pipe is 12 inches or less in outside diameter or has a diameter to wall thickness ratio less than 70.

(c) Each circumferential weld which is located where the stress during bending causes a permanent deformation in the pipe must be nondestructively tested either before or after the bending process.

**§ 195.214 Welding: General.**

(a) Welding must be performed in compliance with this section and §§ 195.218 through 195.234.

(b) Welding must be performed in accordance with established written welding procedures that have been tested to assure that they will produce sound, ductile welds that comply with requirements of this subpart. Detailed records of these tests must be kept by the operator involved.

**§ 195.216 Welding: Miter joints.**

A miter joint is not permitted (not including deflections up to 3 degrees that are caused by misalignment).

**§ 195.220 Welds: Filler metal.**

Filler metal must be at least equal in strength to the highest specified minimum yield strength of the pieces being welded and must fuse the pieces together.

**§ 195.222 Welders: Testing.**

Each welder must be qualified in accordance with section 3 of API Standard 1104, except that a welder qualified under an earlier edition of API 1104 previously listed in § 195.3 may weld but may not requalify under that earlier edition.

**§ 195.224 Welding: Weather.**

Welding must be protected from weather conditions that would impair the quality of the completed weld.

**§ 195.226 Welding: Arc burns.**

(a) Each arc burn must be repaired.

(b) An arc burn may be repaired by completely removing the notch by grinding, if the grinding does not reduce the remaining wall thickness to less than the minimum thickness required by the tolerances in the specification to which the pipe is manufactured. If a notch is not repairable by grinding, a cylinder of the pipe containing the entire notch must be removed.

(c) A ground may not be welded to the pipe or fitting that is being welded.

**§ 195.228 Welds and welding inspection: Standards of acceptability.**

(a) Each weld and welding must be inspected to insure compliance with the requirements of this subpart. Visual inspection must be supplemented by nondestructive testing.

(b) The acceptability of a weld is determined according to the standards in section 6 of API Standard 1104.

**§ 195.230 Welds: Repair of defects.**

(a) Except as provided in paragraph (b) of this section, a weld that is found unacceptable under § 195.228 may not be repaired unless—

(1) There are no cracks in the weld;  
(2) The segment of the weld to be repaired was not previously repaired; and

(3) The weld is inspected after repair to assure its acceptability.

(b) In the case of offshore pipelines, a weld on a pipeline being installed from a pipelay vessel may be repaired if the repair is made in accordance with established written welding procedures that have been tested under § 195.214 to assure that they will produce sound ductile welds.

**§ 195.232 Welds: Removal of defects.**

Except for offshore pipelines being installed from a pipelay vessel, a cylinder of the pipe containing the weld must be removed and the ends rebeveled whenever—

(a) The weld contains one or more cracks;

(b) The weld is not acceptable under § 195.228 and is not repaired; or

(c) The weld was repaired and the repair did not meet the requirements of § 195.228.

**§ 195.234 Welds: Nondestructive testing and retention of testing records.**

(a) A weld may be nondestructively tested by any process that will clearly indicate any defects that may affect the integrity of the weld.

(b) Any nondestructive testing of welds must be performed—

(1) In accordance with a written set of procedures for nondestructive testing; and

(2) With personnel that have been trained in the established procedures and in the use of the equipment employed in the testing.

(c) Procedures for the proper interpretation of each weld inspection must be established to ensure the acceptability of the weld under § 195.228.

(d) During construction, at least 10 percent of the girth welds made by each welder during each welding day must be nondestructively tested over the entire circumference of the weld.

(e) In the following locations, 100 percent of the girth welds must be nondestructively tested:

(1) At any onshore location where a loss of hazardous liquid could reasonably be expected to pollute any stream, river, lake, reservoir, or other body of water, and any offshore area unless impracticable, in which case only 90 percent of each day's welds need be tested.

(2) Within railroad or public road rights-of-way.

(3) At overhead road crossings and within tunnels.

(4) At pipeline tie-ins.

(5) Within the limits of any incorporated subdivision of a State government.

(6) Within populated areas, including but not limited to, residential subdivisions, shopping centers, schools, designated commercial areas, industrial facilities, public institutions, and places of public assembly.

(f) When installing used pipe, 100 percent of the old girth welds must be nondestructively tested.

(g) A record of the nondestructive testing must be retained by the operator who is involved, including (if radiography is used) the developed film with, so far as practicable, the location of the weld. This record must be retained for 3 years after the line is placed in operation.

**§ 195.236 External corrosion protection.**

Each component in the pipeline system must be provided with protection against external corrosion.

**§ 195.238 External coating.**

(a) No pipeline system component may be buried or submerged unless that component has an external protective coating that—

(1) Is designed to mitigate corrosion of the buried or submerged component;

(2) Has sufficient adhesion to the metal surface to prevent underfilm migration of moisture;

(3) Is sufficiently ductile to resist cracking;

(4) Has enough strength to resist damage due to handling and soil stress; and

(5) Supports any supplemental cathodic protection.

In addition, if an insulating-type coating is used it must have low moisture absorption and provide high electrical resistance.

(b) All pipe coating must be inspected just prior to lowering the pipe into the ditch or submerging the pipe, and any damage discovered must be repaired.

**§ 195.242 Cathodic protection system.**

(a) A cathodic protection system must be installed for all buried or submerged facilities to mitigate corrosion that might result in structural failure. A test procedure must be developed to determine whether adequate cathodic protection has been achieved.

(b) A cathodic protection system must be installed not later than 1 year after completing the construction.

**§ 195.244 Test leads.**

(a) Except for offshore pipelines, electrical test leads used for corrosion control or electrolysis testing must be installed at intervals frequent enough to obtain electrical measurements indicating the adequacy of the cathodic protection.

(b) Test leads must be installed as follows:

(1) Enough looping or slack must be provided to prevent test leads from being unduly stressed or broken during backfilling.

(2) Each lead must be attached to the pipe so as to prevent stress concentration on the pipe.

(3) Each lead installed in a conduit must be suitably insulated from the conduit.

**§ 195.246 Installation of pipe in a ditch.**

(a) All pipe installed in a ditch must be installed in a manner that minimizes the introduction of secondary stresses

and the possibility of damage to the pipe.

(b) All offshore pipe in water at least 12 feet deep but not more than 200 feet deep, as measured from the mean low tide, must be installed so that the top of the pipe is below the natural bottom unless the pipeline is supported by stanchions, held in place by anchors or heavy concrete coating, or an equivalent level of protection is provided.

**§ 195.248 Cover over buried pipeline.**

(a) Unless specifically exempted in this subpart, all pipe must be buried so that it is below the level of cultivation. Except as provided in paragraph (b) of this section, the pipe must be installed so that the cover between the top of the pipe and the ground level, road bed, river bottom, or sea bottom, as applicable, complies with the following table:

Location	Cover (inches)	
	For normal excavation	For rock excavation <sup>1</sup>
Industrial, commercial, and residential areas	36	30
Crossings of inland bodies of water with a width of at least 100 ft from high water mark to high water mark	48	18
Drainage ditches at public roads and railroads	36	36
Deepwater port safety zone	48	24
Other offshore areas under water less than 12 ft deep as measured from the mean low tide	36	18
Any other area	30	18

<sup>1</sup> Rock excavation is any excavation that requires blasting or removal by equivalent means.

(b) Less cover than the minimum required by paragraph (a) of this section and § 195.210 may be used if—

(1) It is impracticable to comply with the minimum cover requirements; and

(2) Additional protection is provided that is equivalent to the minimum required cover.

**§ 195.250 Clearance between pipe and underground structures.**

Any pipe installed underground must have at least 12 inches of clearance between the outside of the pipe and the extremity of any other underground structure, except that for drainage tile the minimum clearance may be less than 12 inches but not less than 2 inches. However, where 12 inches of clearance is impracticable, the clearance may be reduced if adequate provisions are made for corrosion control.

**§ 195.252 Backfilling.**

Backfilling must be performed in a manner that protects any pipe coating and provides firm support for the pipe.

**§ 195.254 Above ground components.**

(a) Any component may be installed above ground in the following situations, if the other applicable requirements of this part are complied with:

- (1) Overhead crossings of highways, railroads, or a body of water.
- (2) Spans over ditches and gullies.
- (3) Scraper traps or block valves.
- (4) Areas under the direct control of the operator.
- (5) In any area inaccessible to the public.

(b) Each component covered by this section must be protected from the forces exerted by the anticipated loads.

**§ 195.256 Crossing of railroads and highways.**

The pipe at each railroad or highway crossing must be installed so as to adequately withstand the dynamic forces exerted by anticipated traffic loads.

**§ 195.258 Valves: General.**

(a) Each valve must be installed in a location that is accessible to authorized employees and that is protected from damage or tampering.

(b) Each submerged valve located offshore or in inland navigable waters must be marked, or located by conventional survey techniques, to facilitate quick location when operation of the valve is required.

**§ 195.260 Valves: Location.**

A valve must be installed at each of the following locations:

(a) On the suction end and the discharge end of a pump station in a manner that permits isolation of the pump station equipment in the event of an emergency.

(b) On each line entering or leaving a breakout storage tank area in a manner that permits isolation of the tank area from other facilities.

(c) On each mainline at locations along the pipeline system that will minimize damage or pollution from accidental hazardous liquid discharge, as appropriate for the terrain in open country, for offshore areas, or for populated areas.

(d) On each lateral takeoff from a trunk line in a manner that permits shutting off the lateral without interrupting the flow in the trunk line.

(e) On each side of a water crossing that is more than 100 feet wide from high-water mark to high-water mark unless the Secretary finds in a particular case that valves are not justified.

(f) On each side of a reservoir holding water for human consumption.

**§ 195.262 Pumping equipment.**

(a) Adequate ventilation must be provided in pump station buildings to prevent the accumulation of hazardous vapors. Warning devices must be installed to warn of the presence of hazardous vapors in the pumping station building.

(b) The following must be provided in each pump station:

(1) Safety devices that prevent overpressuring of pumping equipment, including the auxiliary pumping equipment within the pumping station.

(2) A device for the emergency shutdown of each pumping station.

(3) If power is necessary to actuate the safety devices, an auxiliary power supply.

(c) Each safety device must be tested under conditions approximating actual operations and found to function properly before the pumping station may be used.

(d) Except for offshore pipelines pumping equipment may not be installed—

(1) On any property that will not be under the control of the operator; or

(2) Less than 50 feet from the boundary of the station.

(e) Adequate fire protection must be installed at each pump station. If the fire protection system installed requires the use of pumps, motive power must be provided for those pumps that is separate from the power that operates the station.

**§ 195.264 Above ground breakout tanks.**

For above ground breakout tanks—

(a) A means must be provided for containing hazardous liquids in the event of spillage or tank failure.

(b) Tank areas must be adequately protected against unauthorized entry.

(c) Normal and emergency relief venting must be provided for each tank.

**§ 195.266 Construction records.**

A complete record that shows the following must be maintained by the operator involved for the life of each pipeline facility:

(a) The total number of girth welds and the number nondestructively tested, including the number rejected and the disposition of each rejected weld.

(b) The amount, location, and cover of each size of pipe installed.

(c) The location of each crossing of another pipeline.

(d) The location of each buried utility crossing.

(e) The location of each overhead crossing.

(f) The location of each valve, weighted pipe, corrosion test station, or other item connected to the pipe.

**Subpart E—Hydrostatic Testing****§ 195.300 Scope.**

This subpart prescribes minimum requirements for hydrostatic testing of newly constructed steel pipeline systems; existing steel pipeline systems that are relocated, replaced, or otherwise changed; and onshore steel pipeline systems constructed before January 8, 1971, that transport highly volatile liquids. However, this subpart does not apply to movement of pipe covered by § 195.424.

**§ 195.302 General requirements.**

(a) Each new pipeline system, each pipeline system in which pipe has been relocated or replaced, or that part of a pipeline system that has been relocated or replaced, must be hydrostatically tested in accordance with this subpart without leakage.

(b) No person may transport a highly volatile liquid in an onshore steel pipeline constructed before January 8, 1971, unless the pipeline has been hydrostatically tested in accordance with this subpart or, except for pipelines subject to § 195.5, its maximum operating pressure is established under § 195.406(a)(5). Pipelines that were in highly volatile liquid service before September 8, 1980 must meet this requirement according to the following schedule:

(1) Planning and scheduling of hydrostatic testing or actual reduction in maximum operating pressure to meet § 195.406(a)(5) must be completed before Sept. 15, 1981; and

(2) Hydrostatic testing must be completed before Sept. 15, 1985, with at least 50 percent of the testing completed before Sept. 15, 1983.

(c) The test pressure for each hydrostatic test conducted under this section must be maintained throughout the part of the system being tested for at least 4 continuous hours at a pressure equal to 125 percent, or more, of the maximum operating pressure and, in the case of a pipeline that is not visually inspected for leakage during test, for at least an additional 4 continuous hours at a pressure equal to 110 percent, or more, of the maximum operating pressure.

**§ 195.304 Testing of components.**

(a) Each hydrostatic test under § 195.302 must test all pipe and attached fittings, including components, unless otherwise permitted by paragraph (b) of this section.

(b) A component that is the only item being replaced or added to the pipeline system need not be hydrostatically tested under paragraph (a) of this

section if the manufacturer certifies that either—

- (1) The component was hydrostatically tested at the factory; or
- (2) The component was manufactured under a quality control system that ensures each component is at least equal in strength to a prototype that was hydrostatically tested at the factory.

#### § 195.306 Test medium.

- (a) Except as provided in paragraph (b) of this section, water must be used as the test medium.
- (b) Except for offshore pipelines, liquid petroleum that does not vaporize rapidly may be used as the test medium if—
  - (1) The entire pipeline section under test is outside of cities and other populated areas;
  - (2) Each building within 300 feet of the test section is unoccupied while the test pressure is equal to or greater than a pressure which produces a hoop stress of 50 percent of specified minimum yield strength;
  - (3) The test section is kept under surveillance by regular patrols during the test; and
  - (4) Continuous communication is maintained along entire test section.

#### § 195.308 Testing of tie-ins.

Pipe associated with tie-ins must be hydrostatically tested, either with the section to be tied in or separately.

#### § 195.310 Records.

- (a) A record must be made of each hydrostatic test and that record must be retained as long as the facility tested is in use.
- (b) The record required by paragraph (a) of this section must include the recording gauge charts, dead weight tester data, and the reasons for any failure during a test. Where elevation differences in the section under test exceed 100 feet, a profile of the pipeline that shows the elevation and test sites over the entire length of the test section must be included. Each recording gauge chart must also contain—
  - (1) The operator's name, the name of the person responsible for making the test, and the name of the test company used, if any;
  - (2) The date and time of the test;
  - (3) The minimum test pressure;
  - (4) The test medium;
  - (5) A description of the facility tested; and
  - (6) An explanation of any pressure discontinuities that appear on any chart.

### Subpart F—Operation and Maintenance

#### § 195.400 Scope.

This subpart prescribes minimum requirements for operating and maintaining pipeline systems constructed with steel pipe.

#### § 195.401 General requirements.

(a) No operator may operate or maintain its pipeline systems at a level of safety lower than that required by this subpart and the procedures it is required to establish under § 195.402(a) of this subpart.

(b) Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it shall correct it within a reasonable time. However, if the condition is of such a nature that it presents an immediate hazard to persons or property, the operator may not operate the affected part of the system until it has corrected the unsafe condition.

(c) Except as provided in § 195.5, no operator may operate any part of a pipeline system upon which construction was begun after March 31, 1970, or in the case of offshore pipelines located between a production facility and an operator's trunkline reception point, after July 31, 1977, unless it was designed and constructed as required by this part.

#### § 195.402 Procedural manual for operations, maintenance, and emergencies.

(a) *General.* Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed annually and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

(b) *Amendments.* If the Secretary finds that an operator's procedures are inadequate to assure safe operation of the system or to minimize hazards in an emergency, the Secretary may, after issuing a notice of amendment and providing an opportunity for an informal hearing, require the operator to amend the procedures. In determining the adequacy of the procedures, the Secretary considers pipeline safety data, the feasibility of the procedures, and whether the procedures are appropriate for the pipeline system involved. Each

notice of amendment shall allow the operator at least 15 days after receipt of such notice to submit written comments or request an informal hearing. After considering all material presented, the Secretary shall notify the operator of the required amendment or withdraw the notice proposing the amendment.

(c) *Maintenance and Normal Operations.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1) Making construction records, maps, and operating history available as necessary for safe operation and maintenance.

(2) Gathering of data needed for reporting accidents under Subpart B of this part in a timely and effective manner.

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart.

(4) Determining which pipeline facilities are located in areas that would require an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned.

(5) Analyzing pipeline accidents to determine their causes.

(6) Minimizing the potential for hazards identified under paragraph (c)(4) of this section and the possibility of recurrence of accidents analyzed under paragraph (c)(5) of this section.

(7) Starting up and shutting down any part of the pipeline system in a manner designed to assure operation within the limits prescribed by § 195.406, consider the hazardous liquid in transportation, variations in altitude along the pipeline, and pressure monitoring and control devices.

(8) In the case of a pipeline that is not equipped to fail safe, monitoring from an attended location pipeline pressure during startup until steady state pressure and flow conditions are reached and during shut-in to assure operation within limits prescribed by § 195.406.

(9) In the case of facilities not equipped to fail safe that are identified under § 195.402(c)(4) or that control receipt and delivery of the hazardous liquid, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location.

(10) Abandoning pipeline facilities, including safe disconnection from an operating pipeline system, purging of combustibles, and sealing abandoned

facilities left in place to minimize safety and environmental hazards.

(11) Minimizing the likelihood of accidental ignition of vapors in areas near facilities identified under paragraph (c)(4) of this section where the potential exists for the presence of flammable liquids or gases.

(12) Establishing and maintaining liaison with fire, police, and other appropriate public officials to learn the responsibility and resources of each government organization that may respond to a hazardous liquid pipeline emergency and acquaint the officials with the operator's ability in responding to a hazardous liquid pipeline emergency and means of communication.

(13) Periodically reviewing the work done by operator personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

(d) *Abnormal Operation.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(1) Responding to, investigating, and correcting the cause of:

(i) Unintended closure of valves or shutdowns;

(ii) Increase or decrease in pressure or flow rate outside normal operating limits;

(iii) Loss of communications;

(iv) Operation of any safety device;

(v) Any other malfunction of a component, deviation from normal operation, or personnel error which could cause a hazard to persons or property.

(2) Checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation.

(3) Correcting variations from normal operation of pressure and flow equipment and controls.

(4) Notifying responsible operator personnel when notice of an abnormal operation is received.

(5) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.

(e) *Emergencies.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs:

(1) Receiving, identifying, and classifying notices of events which need

immediate response by the operator or notice to fire, police, or other appropriate public officials and communicating this information to appropriate operator personnel for corrective action.

(2) Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility accidental release of hazardous liquid from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.

(3) Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.

(4) Taking necessary action, such as emergency shutdown, or pressure reduction, to minimize the volume of hazardous liquid that is released from any section of a pipeline system in the event of a failure.

(5) Control of released hazardous liquid at an accident scene to minimize the hazard, including possible intentional ignition in the cases of flammable highly volatile liquid.

(6) Minimization of public exposure to injury and probability of accidental ignition by assisting with evacuation of residents and assisting with halting traffic on roads and railroads in the affected area, or taking other appropriate action.

(7) Notifying fire, police, and other appropriate public officials of hazardous liquid pipeline emergencies and coordinating with them preplanned and actual responses during an emergency, including additional precautions necessary for an emergency involving a pipeline system transporting a highly volatile liquid.

(8) In the case of failure of a pipeline system transporting a highly volatile liquid, use of appropriate instruments to assess the extent and coverage of the vapor cloud and determine the hazardous areas.

(9) Providing for a post accident review of employee activities to determine whether the procedures were effective in each emergency and taking corrective action where deficiencies are found.

#### § 195.403 Training.

(a) Each operator shall establish and conduct a continuing training program to instruct operating and maintenance personnel to:

(1) Carry out the operating and maintenance, and emergency procedures established under § 195.402 that relate to their assignments;

(2) Know the characteristics and hazards of the hazardous liquids transported, including, in the case of flammable HVL, flammability of mixtures with air, orderless vapors, and water reactions;

(3) Recognize conditions that are likely to cause emergencies, predict the consequences of facility malfunctions or failures and hazardous liquid spills, and to take appropriate corrective action;

(4) Take steps necessary to control any accidental release of hazardous liquid and to minimize the potential for fire, explosion, toxicity, or environmental damage;

(5) Learn the proper use of firefighting procedures and equipment, fire suits, and breathing apparatus by utilizing, where feasible, a simulated pipeline emergency condition; and

(6) In the case of maintenance personnel, to safely repair facilities using appropriate special precautions, such as isolation and purging, when highly volatile liquids are involved.

(b) At intervals of not more than 1 year each operator shall:

(1) Review with personnel their performance in meeting the objectives of the training program set forth in paragraph (a) of this section; and

(2) Make appropriate changes to the training program as necessary to insure that it is effective.

(c) Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the procedures established under § 195.402 for which they are responsible to insure compliance.

#### § 195.404 Maps and records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information:

(1) Location and identification of all major facilities.

(2) All crossings of public roads, railroads, rivers, buried utilities, and foreign pipelines.

(3) The maximum operating pressure of each pipeline.

(4) The diameter, grade, type, and nominal wall thickness of all pipe.

(b) Each operator shall maintain daily operating records that indicate the discharge pressures at each pump station and any unusual operations of a facility. The operator shall retain these records for at least 3 years.

(c) Each operator shall maintain for the useful life of that part of the pipeline system to which they relate, records that include the following:

(1) The date, location, and description of each repair made to its pipeline systems.

(2) A record of each inspection and each test required by this subpart.

**§ 195.406 Maximum operating pressure.**

(a) Except for surge pressures and other variations from normal operations, no operator may operate a pipeline at a pressure that exceeds any of the following:

(1) The internal design pressure of the pipe determined in accordance with § 195.106.

(2) The design pressure of any other component of the pipeline.

(3) Eighty percent of the test pressure for any part of the pipeline which has been hydrostatically tested under Subpart E of this part.

(4) Eighty percent of the factory test pressure or of the prototype test pressure for any individually installed component which is excepted from testing under § 195.304.

(5) In the case of onshore HVL pipelines constructed before January 8, 1971, that have not been tested under Subpart E of this part, 80 percent of the lost pressure or highest operating pressure to which the pipeline was subjected for four or more continuous hours that can be demonstrated by recording charts or logs made at the time the test or operations were conducted. (See § 195.302(b) for a compliance schedule for pipelines in HVL service before September 8, 1980.)

(b) No operator may permit the pressure in a pipeline during surges or other variations from normal operations to exceed 110 percent of the operating pressure limit established under paragraph (a) of this section. Each operator must provide adequate controls and protective equipment to control the pressure within this limit.

**§ 195.408 Communications.**

(a) Each operator must have a communication system to provide for the transmission of information needed for the safe operation of its pipeline system.

(b) The communication system required by paragraph (a) of this section must, as a minimum, include means for:

(1) Monitoring operational data as required by § 195.402(c)(9);

(2) Receiving notices from operator personnel, the public, and public authorities of abnormal or emergency conditions and sending this information to appropriate personnel or government agencies for corrective action;

(3) Conducting two-way vocal communication between a control center

and the scene of abnormal operations and emergencies; and

(4) Providing communication with fire, police, and other appropriate public officials during emergency conditions, including a natural disaster.

**§ 195.410 Line markers.**

(a) Except as provided in paragraphs (b) and (c) of this section, each operator shall place and maintain line markers over each buried line in accordance with the following:

(1) Markers must be located at each public road crossing, at each railroad crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known.

(2) The marker must state at least the following: "Warning" followed by the words "Petroleum (or the name of the hazardous liquid transported) Pipeline" (in lettering at least 1 inch high with an approximate stroke of one-quarter inch on a background of sharply contrasting color), the name of the operator and a telephone number (including area code) where the operator can be reached at all times. Markers at navigable waterway crossings must also contain the words "Do Not Anchor or Dredge" with lettering not less than 12 inches high with an approximate stroke of 1¼ inches on a background of sharply contrasting color.

(b) Line markers are not required in heavily developed urban areas such as downtown business centers where—

(1) The placement of markers is impracticable and would not serve the purpose for which markers are intended; and

(2) The local government maintains current substructure records.

(c) Line markers that have been installed before April 1, 1970, may be used until April 1, 1975.

(d) Each operator shall provide line marking at locations where the line is above ground in areas that are accessible to the public.

**§ 195.412 Inspection of rights-of-way and crossings under navigable waters.**

(a) Each operator shall, at intervals not exceeding 2 weeks, inspect the surface conditions on or adjacent to each pipeline right-of-way.

(b) Except for offshore pipelines, each operator shall, at intervals not exceeding 5 years, inspect each crossing under a navigable waterway to determine the condition of the crossing.

**§ 195.414 Cathodic protection.**

(a) After March 31, 1973, no operator may operate a pipeline that has an external surface coating material, unless that pipeline is cathodically protected.

This paragraph does not apply to breakout tank areas and buried pumping station piping.

(b) Each operator shall electrically inspect each bare pipeline before April 1, 1975, to determine any areas in which active corrosion is taking place. The operator may not increase its established operating pressure on a section of bare pipeline until the section has been so electrically inspected. In any areas where active corrosion is found, the operator shall provide cathodic protection. Section 195.416 (f) and (g) applies to all corroded pipe that is found.

(c) Each operator shall electrically inspect all breakout tank areas and buried pumping station piping before April 1, 1973, as to the need for cathodic protection, and cathodic protection shall be provided where necessary.

(d) Notwithstanding the deadlines for compliance in paragraphs (a), (b), and (c) of this section, this section does not apply to offshore pipelines located between a production facility and an operator's trunkline reception point until August 1, 1977.

**§ 195.416 External corrosion control.**

(a) Each operator shall, at intervals not exceeding 12 months, conduct tests on each underground facility in its pipeline systems that is under cathodic protection to determine whether the protection is adequate.

(b) Each operator shall maintain the test leads required for cathodic protection in such a condition that electrical measurements can be obtained to ensure adequate protection.

(c) Each operator shall, at intervals not exceeding 2 months, inspect each of its cathodic protection rectifiers.

(d) Each operator shall, at intervals not exceeding 5 years, electrically inspect the bare pipe in its pipeline system that is not cathodically protected and must study leak records for that pipe to determine if additional protection is needed.

(e) Whenever any buried pipe is exposed for any reason, the operator shall examine the pipe for evidence of external corrosion. If the operator finds that there is active corrosion, that the surface of the pipe is generally pitted, or that corrosion has caused a leak, it shall investigate further to determine the extent of the corrosion.

(f) Any pipe that is found to be generally corroded so that the remaining wall thickness is less than the minimum thickness required by the pipe specification tolerances must either be replaced with coated pipe that meets the requirements of this part or, if the area

is small, must be repaired. However, the operator need not replace generally corroded pipe if the operating pressure is reduced to be commensurate with the limits on operating pressure specified in this subpart, based on the actual remaining wall thickness.

(g) If isolated corrosion pitting is found, the operator shall repair or replace the pipe unless—

(1) The diameter of the corrosion pits is less than the nominal wall thickness as measured at the surface of the pipe; and

(2) The remaining wall thickness at the bottom of the pits is at least 70 percent of the nominal wall thickness.

(h) Each operator shall clean, coat with material suitable for the prevention of atmospheric corrosion, and, maintain this protection for, each component in its pipeline system that is exposed to the atmosphere.

#### § 195.418 Internal corrosion control.

(a) No operator may transport any hazardous liquid that would corrode the pipe or other components of its pipeline system, unless it has investigated the corrosive effect of the hazardous liquid on the system and has taken adequate steps to mitigate corrosion.

(b) If corrosion inhibitors are used to mitigate internal corrosion the operator shall use inhibitors in sufficient quantity to protect the entire part of the system that the inhibitors are designed to protect and shall also use coupons or other monitoring equipment to determine their effectiveness.

(c) The operator shall, at intervals not exceeding 6 months, examine coupons or other types of monitoring equipment to determine the effectiveness of the inhibitors or the extent of any corrosion.

(d) Whenever any pipe is removed from the pipeline for any reason, the operator must inspect the internal surface for evidence of corrosion. If the pipe is generally corroded such that the remaining wall thickness is less than the minimum thickness required by the pipe specification tolerances, the operator shall investigate adjacent pipe to determine the extent of the corrosion. The corroded pipe must be replaced with pipe that meets the requirements of this part or, based on the actual remaining wall thickness, the operating pressure must be reduced to be commensurate with the limits on operating pressure specified in this subpart.

#### § 195.420 Value maintenance.

(a) Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

(b) Each operator shall, at intervals not exceeding 6 months, inspect each main line valve to determine that it is functioning properly.

(c) Each operator shall provide protection for each valve from unauthorized operation and from vandalism.

#### § 195.422 Pipeline repairs.

(a) Each operator shall, in repairing its pipeline systems, insure that the repairs are made in a safe manner and are made so as to prevent damage to persons or property.

(b) No operator may use any pipe, valve, or fitting, for replacement in repairing pipeline facilities, unless it is designed and constructed as required by this part.

#### § 195.424 Pipe movement.

(a) No operator may move any line pipe, unless the pressure in the line section involved is reduced to not more than 50 percent of the maximum operating pressure.

(b) No operator may move any pipeline containing highly volatile liquids where materials in the line section involved are joined by welding unless—

(1) Movement when the pipeline does not contain highly volatile liquids is impractical;

(2) The procedures of the operator under § 195.402 contain precautions to protect the public against the hazard in moving pipelines containing highly volatile liquids, including the use of warnings, where necessary, to evacuate the area close to the pipeline; and

(3) The pressure in that line section is reduced to the lower of the following:

(i) Fifty percent or less of the maximum operating pressure; or

(ii) The lowest practical level that will maintain the highly volatile liquid in a liquid state with continuous flow, but not less than 50 p.s.i.g. above the vapor pressure of the commodity.

(c) No operator may move any pipeline containing highly volatile liquids where materials in the line section involved are not joined by welding unless—

(1) The operator complies with paragraphs (b) (1) and (2) of this section; and

(2) That line section is isolated to prevent the flow of highly volatile liquid.

#### § 195.426 Scraper and sphere facilities.

No operator may use a launcher or receiver that is not equipped with a relief device capable of safely relieving pressure in the barrel before insertion or removal of scrapers or spheres. The operator must use a suitable device to

indicate that pressure has been relieved in the barrel or must provide a means to prevent insertion or removal of scrapers or spheres if pressure has not been relieved in the barrel.

#### § 195.428 Overpressure safety devices.

(a) Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 12 months, or 6 months in the case of pipelines used to carry highly volatile liquids, inspect and test each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.

(b) In the case of relief valves on pressure breakout tanks containing highly volatile liquids, each operator shall test each valve at intervals not exceeding 5 years.

#### § 195.430 Firefighting equipment.

Each operator shall maintain adequate firefighting equipment at each pump station and breakout tank area. The equipment must be—

(a) In proper operating condition at all times;

(b) Plainly marked so that its identity as firefighting equipment is clear; and

(c) Located so that it is easily accessible during a fire.

#### § 195.432 Breakout tanks.

Each operator shall, at intervals not exceeding 12 months, inspect each breakout tank (including atmospheric and pressure tanks).

#### § 195.434 Signs.

Each operator shall maintain signs visible to the public around each pumping station and breakout tank area. Each sign must contain the name of the operator and an emergency telephone number to contact.

#### § 195.436 Security of facilities.

Each operator shall provide protection for each pumping station and breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

#### § 195.438 Smoking or open flames.

Each operator shall prohibit smoking and open flames in each pump station area and each breakout tank area where there is a possibility of the leakage of a flammable hazardous liquid or of the presence of flammable vapors.



**§ 195.440 Public education.**

Each operator shall establish a continuing educational program to enable the public, appropriate government organizations, and persons engaged in excavation related activities

to recognize a hazardous liquid pipeline emergency and to report it to the operator or the fire, police, or other appropriate public officials. The program must be conducted in English and in other languages commonly

understood by a significant number and concentration of non-English speaking population in the operator's operating areas.

[FR Doc. 81-21722 Filed 7-24-81; 8:45 am]  
BILLING CODE 4910-60-M