DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS REGULATIONS BOARD
WASHINGTON, D.C. 20590

Title 49—TRANSPORTATION

Chapter I—Hazardous Materials Regulations Board, Department of Transportation

[Docket No. HM-6]

PART 180—CARRIERS BY PIPELINE

PART 195—TRANSPORTATION OF LIQUIDS BY PIPELINE

Requirements for Design, Construction, Operation, and Maintenance

The purpose of this amendment is to establish safety regulations for the design, construction, operation, and maintenance of pipelines carrying hazardous materials and petroleum products in liquid form. These regulations, which were proposed as an amendment to Part 180 of this chapter, are issued as a new Part 195. They have been renumbered in order to align them more closely with the other pipeline regulations of the Department which are now contained in Part 190. Existing Part 180 is deleted and its substantive provisions are incorporated in new Part 195 as Subparts A and B.

On July 12, 1968, the Hazardous Materials Regulations Board issued Notice 68-4 (Docket HM-6; 33 F.R. 10213, July 17, 1968) proposing to amend Part 180 of the Hazardous Materials Regulations to establish detailed safety regulations for liquid pipelines. The public was given 4 months to comment on the proposal and upon request this was subsequently extended to 6 months. Comments were received from 60 persons, including individual companies, industry groups, and other governmental bodies.

As a result of these comments, the hydrostatic testing requirements for new and existing pipelines as set forth in proposed Subparts E and G are not issued with this amendment. The comments submitted on Subpart G were critical of the proposed testing procedures and strongly opposed to their broad application for qualifying and periodically requalifying all existing pipelines. Some of the reasons cited were: The extremely high costs of shutting down existing pipelines primarily caused by loss of throughput; the improved protection systems that have been provided in recent years; the lack of necessity indicated by accident records; and the minimal benefits (i.e., improved safety) to the public that would accrue from such a testing program. A number of alternatives were proposed by those who commented, including removing the requirements for pipelines with adequate protection systems, spot testing of older lines, or basing the test requirement on the number of failures occurring in particular pipelines.

After considering all of the relevant comments, the Board has concluded that a number of serious problems may exist in the broad application of the proposed qualification and requalification requirements to all existing pipelines. This appears to be particularly true with respect to cost-benefit analysis and, in the case of some pipelines, with respect to the basic need for such a requirement. Therefore, it has been decided to withdraw Subpart G of the proposal in order to carefully reconsider these requirements in light of the alternative proposals. The problems involved in periodic testing of existing pipelines will be explored through further rule making, including a public hearing to be announced at a later date. The withdrawal of proposed rules constitutes only that action and does not preclude the Board from issuing another notice in the future, nor does it commit the Board to any future course of action.

New pipelines, and existing pipelines that receive major modifications, are being hydrostatically tested in accordance with the industry code before being placed in service and this appears to be a universally accepted practice. However, many of the comments did question the requirement for testing at 140 percent of the maximum operating pressure. Most suggested that the test be conducted at 125 percent stating that this pressure provided an adequate safety factor and conformed to the existing industry practice.

On the other hand, some comments indicated that testing to higher pressures had a number of beneficial effects from the standpoint of safety. In view of these differences of opinion within the industry over testing to higher pressures, Subpart E is being withheld and a public hearing is being scheduled in order to obtain additional information before making a final decision on test pressures. In addition, some of the provisions affecting the selection of maximum operating pressure, such as those relating to surge pressure and minimum wall thickness, also provoked considerable public comment. Since the limits on operating pressure *and test pressure* are so closely related, they should be considered together.

Therefore, the proposed definitions of "internal design pressure" and "maximum operating pressure", and proposed § 180.106 on determining wall thickness are also being withheld pending the resolution of these questions. A public hearing will be held (see p. 15489 of this issue) and it is expected that these provisions will be issued within 30 days thereafter, to be effective at the same

time as the regulations being issued herein.

The preamble to the notice of proposed rule making discussed the difference between "performance" and "specification" type requirements, indicating the intent to develop, to the maximum extent possible, performance requirements so as to avoid impeding innovation on the part of the industry. It is recognized that many of the materials that are incorporated by reference in these regulations are detailed specification type requirements that to some degree negate this intent. To avoid this result in the future, public comment is requested on ways to state the objectives of these incorporated materials so as to provide the flexibility that is necessary to encourage technological improvements.

One of the most significant changes to the rules proposed involves the testing of girth welds. It has been decided that the 100 percent testing requirement for girth welds is not necessary for all locations, and therefore the requirement that each girth weld be tested is now limited to a number of well-defined areas where the potential hazards of a loss of commodity are much greater. In all other locations, which will be mostly open country, only 10 percent of the welds made each day must be tested, although to assure representative testing this will include at least 10 percent of each welder's work. However, with respect to the 10 percent requirement, it should be recognized that this is a minimum requirement and that the testing of the welds should be conducted in consideration not only of the situation in existence when the pipeline is constructed but also with respect to the situation which can be foreseen in the future. While 10 percent testing may be adequate for a particular location at the time a pipeline is laid, a change in population density might make this entirely inadequate in the future, thus necessitating some additional safety measures, such as a reduction in operating pressure, to compensate for the lack of testing.

Other significant changes to the proposed regulations are discussed below by individual section. The section numbers correspond to the numbers proposed in Notice 68–4, with only the part number changed. In addition, a number of editorial changes and minor clarifying modifications to language have been made which do not significantly change the substance of the proposed rules.

Section 195.1. The scope of the regulation has been clarified by specifying that the hazardous materials covered are those that are subject to Parts 172 and 173 of the Hazardous Materials Regulations. Restricting the term in this way necessiates specifically including petroleum and petroleum products in the scope since some forms of petroleum are not subject to those regulations. The exclusion of natural and artificial gas has been broadened to include all gaseous materials since, with the advent of the Natural Gas Pipeline Safety Act of 1968, these commodities will be covered by the gas pipeline regulations. A new paragraph (b)(4) has been added to exclude all gathering pipelines in rural areas except for accident reporting purposes. For the most part, these are low pressure and relatively low volume lines and they create virtually no hazard to persons or property when they are located in rural areas.

Section 195.2. The only significant change in definitions involves the deletion of the term "hazardous material" and the addition of the term "commodity". Both terms were used in the proposed rules but it appears that one will suffice. Therefore "commodity" is defined and will be used uniformly to denominate any hazardous liquid that is subject to Part 195, including both hazardous materials and petroleum. The definition of "petroleum" is also deleted as unnecessary since the term is well understood by the industry.

Section 195.4. This section has been reworded to state a prohibition and to be more specific about the problem involved. No substantive change is intended.

Section 195.8. The requirement for information under this section has been changed slightly to make it consistent with the preceding section. This will avoid confusion when both sections are applicable to a particular situation as they will be in the case of a commodity other than petroleum being carried in nonsteel pipe.

Subpart B. The section numbers have been changed to permit greater flexibility in assigning numbers in future amendments. Since most liquid commodities will vaporize to some degree when released to the atmosphere, the scope of this subpart has been changed by limiting § 195.50(c) to the escape of liquefied gases. Other changes in the reporting criteria were suggested by the comments, but since they had not been proposed and the industry and public have not had an opportunity to comment, these suggestions are deferred for future rule-making proceedings. The accident form remains unchanged except for the cross references to the regulations.

Subpart C. The sections in this subpart and Subpart D have been reworded to remove any reference to the carriers since these provisions apply to whoever performs the design and construction work. Under § 195.402(d), any pipeline operated under this part must meet all of these design and construction requirements. Those sections that have been changed significantly are discussed below.

Section 195.100. A sentence has been added to this section to make it clear that the design provisions do not apply to minor movements of pipe as provided in § 195.424.

Section 195.106. As noted previously, this section has been omitted, pending resolution of certain related issues involving hydrostatic testing and maximum operating pressure.

Section 195.110. Several comments requested that the example of earthquakes be omitted from paragraph (a) since it is virtually impossible to provide for earthquakes. However, the industry has required consideration of this factor in the past and it is not unreasonable to impose such a burden in these regulations. This requirement applies only to anticipated loads and, to the extent that a particular external load cannot reasonably be anticipated, it need not be provided for.

Section 195.112. Paragraph (c) has been changed to permit marking on either the pipe or pipe coating and to allow marking with the grade of pipe as well as specified minimum yield strength.

Section 195.114. Paragraph (a) is changed to provide for determining wall thickness where this is not known. Known specifications are required because random testing is not considered adequate for determining physical and chemical properties and longitudinal weld quality. In addition, the comments indicated that the provisions of paragraph (b) limiting corrosion pits to 5 percent of the nominal wall thickness were too stringent. This is particularly true since the acceptable tolerances in nominal wall thickness are such that a piece of pipe could be corroded more than 5 percent and still have more than the nominal wall thickness remaining. The remaining wall thickness is the most important consideration and, since devices are available for measuring this dimension of the pipe, the requirement is restated in those terms. The remaining wall thickness must be equal to or greater than that required by the thickness tolerances in the specifications to which the pipe was manufactured. Any other surface defects must also be acceptable under the pipe specifications. However, corroded pipe with a remaining wall thickness that does not meet the specifications may be used if the operating pressure is reduced commensurately in accordance with the limits on operating pressure that will be included in Subpart F. Proposed paragraph (c) has been transferred to § 195.234(f).

Section 195.116. Since valve extensions do not always remain with the same valve, it is impracticable to mark them as proposed and this requirement is deleted. As a clarification, the marking is specifically permitted to be on either the body or the nameplate.

Section 195.120. This section has been reworded to exclude the application of this requirement to station and terminal manifolds.

Subpart D. As noted above, this subpart has also been amended to exclude all references to carriers.

Section 195.200. A sentence has been added to exclude the movement of line pipe under § 195.424 from the construction requirements.

Section 195.202. This section has been extensively rewritten but has not been changed in substance except to permit the use of more or less permanent standards in addition to specifications written for an individual job. The requirement that the construction be performed in accordance with specifications or standards obviates any requirement specifically stating that the carrier must have specifications or standards.

Section 195.206. Since the primary concern here is damage occurring in transit, this provision is made more

flexible by modifying it to require inspection at the site of installation rather than immediately before installation.

Section 195.210. The comments stated that there is insufficient evidence of any safety benefits to require an additional 24 inches of cover near these buildings or areas. It appears that an additional 12 inches should provide adequate protection against any excavation or unusual external loads that may occur.

Section 195.212. The requirements for using a cold bending method and for a minimum radius of bend have been deleted. The other requirements of this section should be adequate to assure proper bending of pipe in the field. Several comments apparently read this section as prohibiting any variation in pipe diameter that might result from bending. This was not intended and slight irregularities in pipe diameter are not restricted so long as the other requirements are met.

It was also suggested by several persons that paragraph (e) be eliminated. The Board believes that this requirement is necessary to reduce strains on the weld and there is insufficient technical justification for eliminating it at this time.

Section 195.214. The sentence in paragraph (a) referring to AWS A3.0–1961 has been dropped since no terms from that document are utilized.

Section 195.216. This section has been deleted since the comments indicated that the technical justification was insufficient to warrant such restrictions.

Section 195.218. The comments indicated that the requirement for locating weld seams in the top half of the pipe was useful for locating leaks but was not sufficiently related to safety to be mandatory. For this reason, it has been deleted.

Section 195.220. Additional language has been added here to specify that the filler metal must be as strong as the strongest piece of pipe being welded.

Section 195.224. This section has been reworded to make it clear that the purpose is protection of the weld from adverse weather.

Section 195.226. For the reasons discussed previously, the provisions for repair of arc burns by grinding have been modified to be consistent with § 195.114 with respect to the remaining wall thickness that is required.

Section 195.228. This section has been reworded to emphasize that the quality of the completed weld is the primary concern.

Section 195.234. The welding requirements have been extensively modified as discussed in the main body of the preamble. A new paragraph (f) has been added to provide for testing of old girth welds.

Section 195.238. This section has been reorganized and reworded for greater clarity. Proposed § 180.240 has been deleted and added to this section as paragraph (b).

Section 195.248. In response to comments indicating a substantial increase in cost with very little additional protection, the cover requirement for pipe laid in rock excavations under bodies of water has been reduced.

Section 195.250. In response to a number of comments, an alternative has been added to allow a reduction in clearance if adequate provision is made for corrosion control.

Section 195.256. The requirement for a certain crossing angle for railroads and highways has been deleted as impractical and unnecessary for safety.

Section 195.260. The requirement for a minimum spacing of valves has been dropped as impractical. In the case of very flat terrain, it appears that these valves would serve no valid safety function. On the other hand, in very hilly country, valves will probably have to be placed at much shorter intervals and it should not be implied that 10 miles is acceptable under these circumstances. Several comments objected to the requirement for valves on each side of a water crossing more than 100 feet from high-water mark to high-water mark. As adopted, this requirement authorizes the Federal Railroad Administrator to approve the construction of crossings over 100 feet without valves if he finds in a particular case that the valves are not justified. The Board recognizes that the width of the crossing is not the only factor that should be considered and intends to consider other relevant factors in future rulemaking actions.

Section 195.262. Paragraph (d) is changed to except offshore pumping stations, since these facilities could not possibly comply and there is no necessity for doing so. In addition, since many pumping stations are part of larger facilities owned and controlled by other persons, the requirement for exclusive control by the carrier is dropped as impracticable.

Subpart F—§ 195.402. Paragraph (a) has been reorganized to make clear the three situations for which a carrier must have procedures, i.e., normal operations, abnormal operations, and emergencies.

Under paragraph (c), the pipeline need only be shut down in the case of an immediate hazard to persons or property.

The comments suggested that the design and construction requirements should not be effective until 1 year after being issued. However, since most of these requirements are now being followed by the industry under its own self-imposed code, the Board believes that 6 months will be adequate time to begin to comply.

Section 195.404. Despite several comments suggesting that 1 year's records are sufficient for pump stations, the Board still believes that 3 years is necessary to adequately evaluate the past performance of the station and to isolate any problems if an accident has occurred.

Section 195.410. An exception has been provided for line markers which have been installed before the effective date of this amendment. Markers in this category that do not meet the stated requirements need not be replaced for 5 years. As a result of this change, it is possible to require that all markers installed after the effective date meet the regulations rather than waiting for a year after the effective date. The requirements for signs on navigable waterways have been modified to conform with those presently used. In addition, markers will not be required in urban areas where they cannot be effectively used if substructure records are available.

Section 195.414. This section has been rewritten for greater clarity. The changes in proposed paragraph (a) do not change its substantive effect. The provisions in paragraph (b) for disposition of corroded pipe were duplicative of § 195.416 and are therefore deleted. Paragraph (c) is modified to require cathodic protection at tank farms and pumping stations only where an electrical inspection shows it to be necessary.

Section 195.416. The period for reinspection of uncoated pipeline systems has been raised to 5 years to be consistent with the initial inspection requirements. As indicated in the discussion above on § 195.114 with respect to used pipe, the important consideration in evaluating the usability of corroded pipe is the remaining wall thickness, and the requirements of paragraph (f) are reworded in this way. The carriers are also given the option of repairing the pipe in the case of small areas of corrosion. In addition, a new paragraph is added to provide for pitted areas. Under this paragraph, pitted areas need not be repaired or replaced if the pits are of small diameter and the wall thickness at the bottom of the pits is at least 70 percent of the nominal wall thickness. The references in paragraphs (a) and (b) to construction requirements were not appropriate for existing pipelines and accordingly they are deleted.

Section 195.418. This section has been reorganized slightly. Paragraph (c) becomes paragraph (d) and is reworded to be consistent with the other requirements for corroded pipe.

Section 195.424. The restrictions contained in the proposal have been determined to be unnecessarily stringent and very costly to the industry. Therefore, they have been relaxed to allow the movement of pipe with the commodity (except for liquefied gases) still flowing, although at a substantially reduced pressure. In the case of liquefied gases, the line section will have to be isolated to stop the flow of the commodity.

Section 195.428. It appears from the comments that the inspection period of 12 months will be adequate for overpressure devices except in the case of pipelines carrying liquefied gases. These will have to be inspected each 6 months.

In consideration of the foregoing and for the reasons discussed in the preamble to Notice 68–4, Title 49, Chapter I of the Code of Federal Regulations is amended by deleting Part 180 and by adding a new Part 195 to read as follows, effective April 1, 1970.

(Secs. 831–835, Title 18, United States Code; sec. 6(e)(4), (f)(3)(A), Department of Transportation Act (49 U.S.C. 1655 (e)(4), (f)(3)(A)); § 1.4(d)(6), Regulations of the Office of the Secretary of Transportation)

Issued in Washington, D.C., on September 29, 1969.

R. N. WHITMAN,
Administrator,
Federal Railroad Administration.

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AUTHORITY: The provisions of this Part 195 issued under secs. 831–835, Title 18, United States Code; sec. 6 (e) (4), (f) (3) (A), Department of Transportation Act (49 U.S.C. 1655 (e) (4), (f) (3) (A)); § 1.4(d) (6) of the regulations of the Office of the Secretary of Transportation.

Subpart A—General

§ 195.1 Scope.

(a) Except as provided in paragraph (b) of this section, this part prescribes rules governing the transportation by pipeline in interstate and foreign commerce of hazardous materials that are subject to Parts 172 and 173 of this chapter, petroleum, and petroleum products.

(b) This part does not apply to—

(1) Transportation of water or any commodity that is transported in a gaseous state;

(2) Transportation through a pipeline by gravity;

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

(4) Except for Subpart B of this part, transportation of petroleum in rural areas between a production facility and the point where the petroleum is received by a carrier.

§ 195.2 Definitions.

As used in this part—

"Administrator" means the Administrator of the Federal Railroad Administration of the Department of Transportation or any person to whom he has delegated authority in the matter concerned.

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

"Carrier" means a pipeline carrier subject to sections 831–835 of title 18, United States Code.

"Commodity" means a hazardous material that is subject to Parts 172 and 173 of this chapter, petroleum, and petroleum products.

"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.

"Line section" means a continuous run of pipe between adjacent pressure pump stations, between a pressure pump station and terminal or working tankage, 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.

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

"Pipeline system" or "pipeline" means all parts of a carrier's physical facilities through which commodities move in transportation that is subject to this part, 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 carrier-controlled breakout tankage.

"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 that are not set forth in full in this part. These materials are hereby made a part of this regulation. Materials subject to change are incorporated as they are in effect on the date of adoption of this part, unless the reference to them specifically provides otherwise.

(b) All incorporated materials are available for inspection in the Docket Room, Room 304, 400 Sixth Street SW., Washington, D.C. In addition, materials incorporated by reference are available as follows:

(1) American Petroleum Institute (API), 1271 Avenue of the Americas, New York, N.Y. 10020 or 300 Corrigan Tower Building, Dallas, Tex. 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), 420 Lexington Avenue, New York, N.Y. 10017.

(4) United States of America Standards Institute (USASI), 10 East 40th Street, New York, N.Y. 10016.

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

(1) American Petroleum Institute:

(i) API Standard 6D is titled "API Specification for Steel Gate, Plug, Ball, and Check Valves for Pipeline Service," which may be obtained from the Dallas office.

(ii) API Standard 1104 is titled "Standard for Welding Pipe Lines and Related Facilities," which may be obtained from the New York office.

(2) ASME Code is the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, section VIII, Rules for Construction of Unfired Pressure Vessels.

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

(i) MSS Standard Practice SP–48 is titled "Steel Butt-Welding Fittings (26 inch and larger)."

(ii) MSS Standard Practice SP–63 is titled "High Strength Wrought Welding Fittings."

(4) United States of America Standards Institute:

(i) USAS B16.9 is titled "Wrought Steel Butt-Welding Fittings."

(ii) USAS B31.4 is titled "Liquid Petroleum Transportation Pipeline Systems."

§ 195.4 Acceptable petroleum commodities.

No carrier may transport any petroleum or petroleum product unless the petroleum or petroleum product 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.

§ 195.6 Transportation of commodities other than petroleum.

(a) Except for petroleum and petroleum products, no carrier may transport any commodity unless the carrier notifies the Administrator in writing, with the information listed in paragraph (b) of this section, at least 90 days before the date the transportation is to begin. If the Administrator determines that the transportation of the commodity in the manner proposed would be unduly hazardous, he will, within 90 days after receipt of the notice, order the carrier, in writing, not to transport the commodity in the proposed manner until further notice. As soon as practicable after issuance of such an order, the Administrator will initiate appropriate action to determine whether and in what manner the commodity may be transported without undue hazard.

(b) The notice submitted to the Administrator by the carrier must state the chemical name, common name, hazard classification determined in accordance with Part 173 of this chapter, properties, and characteristics of the commodity to be transported. It must also include design specifications, including materials used in construction of the pipeline and the maximum operating pressures for the pipeline through which the commodity is to be transported.

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

No carrier may transport any commodity through a pipe that is constructed with material other than steel unless the carrier has notified the Administrator in writing at least 90 days before the transportation is to begin. The notice must state the chemical name, common name, hazard classification (if any) determined in accordance with Part 173 of this chapter, properties, and characteristics of the commodity to be transported and the material used in construction of the pipeline. If the Administrator determines that the transportation of the commodity in the manner proposed would be unduly hazardous, he will, within 90 days after receipt of the notice order the carrier, in writing, not to transport the commodity in the proposed manner until further notice.

§ 195.10 Responsibility of carrier for compliance with this part.

A carrier may make arrangements with another person for the performance of any action required by this part. However, the carrier 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 commodity transported resulting in any of the following:

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

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

(c) Escape to the atmosphere of more than five barrels a day of liquefied petroleum gas or other liquefied gas.

(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) Property damage of at least $1,000 to other than the carrier's facilities, based upon actual cost or reliable estimates.

§ 195.52 Immediate notice of fatal accidents.

Whenever the death of any person as the result of an accident required to be reported under this subpart occurs before the carrier has filed a report under § 195.54, the carrier shall, immediately after it becomes aware of the death, notify the Administrator, by telegraph or telephone, of at least the following:

(a) Name and address of the carrier.

(b) Date, time, and exact location of the accident.

(c) The number of persons killed and the number injured.

(d) A brief description of the accident.

§ 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 Administrator, Federal Railroad Administration, Department of Transportation, Washington, D.C. 20591. The carrier 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 carrier 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 carrier at the time of filing the report will permit.

(2) *Part A.* Enter name as it is filed with the Interstate Commerce Commission. If the carrier's name is not filed with the Commission, enter the complete corporate name of the carrier. Enter the address of the carrier'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 commodity.

(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 commodity 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 other than that of the carrier. Dollar value must be actual or the best estimate available.

(13) *Part G, Item 1.* State the commonly used name of the commodity, such as fuel oil, regular gasoline, liquefied petroleum gas. If the commodity 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 pipline 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 carrier shall enter an account of the accident containing the most reliable information to which the carrier 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 carrier 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 a carrier 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 Administrator.

§ 195.60 Carrier assistance in investigation.

If the Department of Transportation investigates an accident, the carrier 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 carrier 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 Federal Railroad Administration, Department of Transportation, Washington, D.C. 20591.

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.

§ 195.108 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 USAS B31.4—1966 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 joint factor must be determined in accordance with this part. If the specified minimum yield strength is not known, the yield strength must be determined in accordance with § 437.6.6 of USAS B31.4—1966. If the wall thickness is not known it must be determined in accordance with § 437.6.3 of USAS B31.4—1966.

(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 subparagraph (3) of this paragraph 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 commodity stream must be made of materials that are compatible with each commodity 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, API Standard 6D, 1964 Edition.

(e) Each 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.

Each fitting used in a pipeline system (such as elbows, returns, tees, crosses, caps, reducers) must comply with the following:

(a) Butt-welding type fittings must meet the marking, end preparation, and the bursting strength requirements of USAS B16.9–1964, MSS Standard Practice SP 48, 1969 Edition, or MSS Standard Practice SP–63, 1969 Edition.

(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 station and terminal 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 Code, section VIII for Unfired Pressure Vessels, 1968 Edition, 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 tanks.

Each above ground tank must be designed to withstand the internal pressure produced by the commodity 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.

Each field bend must comply with the following:

(a) The bend must be smooth and uniform.

(b) After bending the pipe must be free from buckling, cracks, or any other mechanical damage and must conform to the profile of the completed ditch.

(c) There must be no wrinkle bends or mitered bends (not including deflections up to 3° that are caused by misalignment).

(d) No girth weld may be placed inside the bending shoe if the weld protrudes above the outer wall of the pipe.

(e) Pipe containing a longitudinal weld must be bent so that the seam is located near the neutral axis.

§ 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 carrier involved.

§ 195.218 Welding: Seam offset.

Seams on adjacent pipe lengths must be offset.

§ 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 have been tested and found to qualify under section 3, API Standard 1104, January 1968 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 Welding inspection: Standards of acceptability.

The weld and welding must be inspected to ensure compliance with the requirements of this subpart. Visual inspection must be supplemented by nondestructive testing. The acceptability of the weld is determined according to the standards in section 6, API Standard 1104, January 1968 edition.

§ 195.230 Welds: Repair of defects.

A weld that is found unacceptable under § 195.228 may not be repaired unless—

(a) There are no cracks in the weld;

(b) The segment of the weld to be repaired was not previously repaired; and

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

§ 195.232 Welds: Removal of defects.

A cylinder of the pipe containing a 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 location where a loss of commodity would pollute any stream, river, lake, reservoir, or other body of water.

(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 carrier 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 unless that component has an external protective coating that—

(1) Is designed to mitigate corrosion on the buried 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 and any damage discovered must be repaired.

§ 195.242 Cathodic protection system.

(a) A cathodic protection system must be installed for all buried facilities to mitigate corrosion deterioration 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.

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.

§ 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, or river bottom, as applicable, complies with the following table:

Location	Cover (inches)	
	For normal excavation	For Rock excavation [1]
Industrial, commercial, and residential areas	36	30
Crossings of bodies of water with a width of at least 100 feet from high water mark to high water mark	48	18
Drainage ditches at public roads and railroads	36	36
Any other area	30	18

[1] 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 carrier.

(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.

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

§ 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 tank farm in a manner that permits isolation of the tank farm from other facilities.

(c) On each main line at locations along the pipeline system that will minimize damage from accidental product discharge, as appropriate for the terrain in open country or for the location near cities or other 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 Administrator 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 carrier; 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 tanks.

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

(b) Tankage 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 carrier involved for the life of each 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 [Reserved]

Subpart F—Operation and Maintenance

§ 195.400 Scope.

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

§ 195.402 General requirements.

(a) Each carrier shall establish and maintain current written procedures:

(1) To ensure the safe operation and maintenance of its pipeline system in accordance with this Part during normal operations.

(2) To be followed during abnormal operations and emergencies.

(b) No carrier 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 paragraph (a) of this section.

(c) Whenever a carrier 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 carrier may not operate the affected part of the system until it has corrected the unsafe condition.

(d) No carrier may operate any part of a pipeline system upon which construction was begun after March 31, 1970, unless it was designed and constructed as required by this part.

§ 195.404 Maps and records.

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

(c) Each carrier shall also 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.

§ 195.408 Communications.

Each carrier shall have a communication system that insures the transmission of information required for the safe operation of its pipeline systems.

§ 195.410 Line markers.

(a) Except as provided in paragraphs (b) and (c) of this section, each carrier 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 commodity 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 carrier and a telephone number (including area code) where the carrier 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 1¾ 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 carrier 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 carrier 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 carrier 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 carrier may operate a pipeline that has an external surface coating material, unless that pipeline is cathodically protected. This paragraph does not apply to tank farms and buried pumping station piping.

(b) Each carrier shall electrically inspect each bare pipeline before April 1, 1975, to determine any areas in which active corrosion is taking place. The carrier may not increase its established maximum 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 carrier shall provide cathodic protection. Section 195.416 (f) and (g) applies to all corroded pipe that if found.

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

§ 195.416 External corrosion control.

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

(d) Each carrier 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 carrier shall examine the pipe for evidence of external corrosion. If the carrier 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 carrier 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 carrier shall repair or replace the pipe unless—

(1) The diameter of the corrosion pits, as measured at the surface of the pipe, is less than the nominal wall thickness 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 carrier 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 carrier may transport any commodity that would corrode the pipe or other components of its pipeline system, unless it has investigated the corrosive effect of the commodity on the system and has taken adequate steps to mitigate corrosion.

(b) If corrosion inhibitors are used to mitigate internal corrosion the carrier 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 carrier 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 carrier 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 carrier 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.

§ 195.420 Valve maintenance.

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

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

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

§ 195.422 Pipeline repairs.

(a) Each carrier 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 carrier 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 carrier 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 carrier may move any pipeline containing liquefied gases unless the line section involved is isolated to prevent the flow of commodity.

§ 195.426 Scraper and sphere facilities.

No carrier 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 carrier 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) Each carrier shall, at intervals not exceeding 12 months, or 6 months in the case of pipelines used to carry liquefied gases, 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.

§ 195.430 Firefighting equipment.

Each carrier shall maintain adequate firefighting equipment at each pump station, terminal, and tank farm. 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 Storage vessels.

Each carrier shall, at intervals not exceeding 12 months, inspect each storage vessel (including atmospheric and pressure tanks).

§ 195.434 Signs.

Each carrier shall maintain signs visible to the public around each pumping station, terminal, or tank farm. Each sign must contain the name of the carrier and an emergency telephone number to contact.

§ 195.436 Security of facilities.

Each carrier shall provide protection for each pumping station, terminal, and tank farm and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

§ 195.438 Smoking or open flames.

Each carrier shall prohibit smoking and open flames in each pump station area and each terminal or tank farm area where there is a possibility of the leakage of a flammable commodity or of the presence of flammable vapors.

[F.R. Doc. 69-11911; Filed, Oct. 3, 1969; 8:49 a.m.]

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

PIPELINE CARRIER ACCIDENT REPORT

FORM APPROVED
BUDGET BUREAU NO.
004R5601

Instructions →

Complete in duplicate. If the space provided for any question is not adequate, attach an additional sheet. Definition of a reportable accident is stated in the Code of Federal Regulations, Title 49, Chapter 1, Part 195. File both copies of this report within 15 days after discovery of the accident with the Administrator, Federal Railroad Administration, Department of Transportation, Washington, D. C. 20591 (Refer: Sec. 195.54). Detailed instructions for preparing this form are found in Part 195 Specimen copies of this form will be supplied upon request without charge. Additional copies may be reproduced using the same format and size.

A Carrier Information

1. NAME OF CARRIER

2. PRINCIPAL BUSINESS ADDRESS

B Time and Location of Accident

1. DATE (MONTH, DAY, YEAR)
2. HOUR ☐ AM ☐ PM
3. LOCATION (STATE, COUNTY, CITY)
4. PART OF CARRIER'S SYSTEM INVOLVED
☐ LINE PIPE ☐ PUMPING STATION ☐ DELIVERY POINT
☐ TANK FARM ☐ OTHER (SPECIFY) _____
5. PHYSICAL LOCATION (IF LOCATION IS NEAR PUBLIC OR PRIVATE BUILDINGS, OR OTHER SIGNIFICANT LANDMARKS SUCH AS HIGHWAYS OR RAILROADS, ATTACH A SKETCH OR DRAWING SHOWING RELATIONSHIP OF ACCIDENT LOCATION TO THESE LANDMARKS)

C Origin of Liquid or Vapor Release

☐ PIPE ☐ GIRTH WELD ☐ LONGITUDINAL WELD ☐ PUMP ☐ VALVE ☐ SCRAPER TRAP
☐ METER OR PROVER ☐ TANK ☐ WELDED FITTING ☐ BOLTED FITTING
☐ SAMPLE HOUSE ☐ HAY TANK ☐ STRAINER OR FILTER ☐ OTHER (SPECIFY) _____

D Cause of Accident

☐ CORROSION ☐ DEFECTIVE WELD ☐ INCORRECT OPERATION BY CARRIER PERSONNEL
☐ DEFECTIVE PIPE ☐ EQUIPMENT RUPTURING LINE ☐ OTHER (SPECIFY) _____

E Death or Injury

1. NUMBER OF PERSONS KILLED		2. NUMBER OF PERSONS INJURED	
CARRIER EMPLOYEES	NON-EMPLOYEES	CARRIER EMPLOYEES	NON-EMPLOYEES

F Property Damage

1. CARRIER'S DAMAGE (PHYSICAL PROPERTY DAMAGED)
$
2. ITEMS DAMAGED
3. OTHER PROPERTY DAMAGE
$
4. ITEMS DAMAGED

G General Information

1. COMMODITY BEING TRANSPORTED AT TIME OF ACCIDENT	2. ESTIMATED LOSS DUE TO ACCIDENT	3. YEAR FACILITY INSTALLED (EXCLUDING PIPE)	4. WAS THERE A FIRE?	5. WAS THERE AN EXPLOSION?
	BARRELS		☐ YES ☐ NO	☐ YES ☐ NO

Instructions → *Answer sections H, I or J only if they apply to the particular accident being reported.*

H Occurred in Line Pipe

1. NOMINAL DIAMETER	2. WALL THICKNESS	3. GRADE	4. YEAR OF INSTALLATION	5. CONDITION WHEN INSTALLED	6. TYPE OF JOINT
IN.	IN.		☐ BEFORE 1920 ☐ 1920–30 ☐ 1930–5 ☐ AFTER 1935 (SPECIFY YR.) _____	☐ NEW ☐ RECONDITIONED	☐ WELD ☐ COUPLED ☐ THREADED

7. CONFIGURATION AT POINT OF ACCIDENT
☐ STRAIGHT ☐ SAG ☐ OVERBEND ☐ SIDEBEND

8. PIPE WAS ☐ COATED ☐ NOT COATED

9. PIPE WAS ☐ ABOVE GROUND ☐ BELOW GROUND

10. COVER, IF BELOW GROUND	11. DESIGN PRESSURE	12. PRESSURE AT TIME & LOCATION OF ACCIDENT	13. HAD THERE BEEN A PRESSURE TEST ON SYSTEM?
IN.	PSIG	PSIG	☐ YES ☐ NO

14. IF 13 IS YES, MEDIUM USED	15. DURATION OF TEST	16. MAXIMUM TEST PRESSURE	17. DATE OF LATEST TEST
☐ WATER ☐ PETROLEUM ☐ AIR	HRS	PSIG	

DOT Form 7000-1 (8-69)

I Caused by Corrosion	1. TYPE OF CORROSION ☐ INTERNAL ☐ EXTERNAL	2. FACILITY COATED? ☐ YES ☐ NO	3. FACILITY UNDER CATHODIC PROTECTION? ☐ YES ☐ NO	4. TIME BETWEEN CORROSION TESTS MONTHS	5. TYPE OF TEST USED
J Caused by Equipment Rupturing Pipeline	1. DISTANCE TO CLOSEST LINE MARKER	2. INFORMATION ON MARKER			3. LENGTH OF TIME BETWEEN PATROL ON SECTION DAYS

ACCOUNT OF ACCIDENT BY RESPONSIBLE OFFICIAL OF CARRIER

NAME AND TITLE OF CARRIER OFFICIAL FILING THIS REPORT	TELEPHONE NO. (INCLUDE AREA CODE)	DATE