

PHMSA REGULATORY REQUIREMENTS FOR PIPELINE OPERATORS IN MARINE ENVIRONMENTS

(NOT INCLUSIVE OF ALL REQUIREMENTS)

Scope and Definitions – Hazardous Liquids Pipelines

49 CFR 195.1 (Full Text) Which pipelines are covered by this Part?

(a) **Covered.** Except for the pipelines listed in paragraph (b) of this Section, this Part applies to pipeline facilities and the transportation of hazardous liquids or carbon dioxide associated with those facilities in or affecting interstate or foreign commerce, including pipeline facilities on the Outer Continental Shelf (OCS). Covered pipelines include, but are not limited to:

- (1) Any pipeline that transports a highly volatile liquid;
- (2) Any pipeline segment that crosses a waterway currently used for commercial navigation;
- (3) Except for a gathering line not covered by paragraph (a)(4) of this Section, any pipeline located in a rural or non-rural area of any diameter regardless of operating pressure;
- (4) Any of the following onshore gathering lines used for transportation of petroleum:
 - (i) A pipeline located in a non-rural area;
 - (ii) A regulated rural gathering line as provided in §195.11; or
 - (iii) A pipeline located in an inlet of the Gulf of Mexico as provided in §195.413.

(b) **Excepted.** This Part does not apply to any of the following:

- (1) Transportation of a hazardous liquid transported in a gaseous state;
- (2) Transportation of a hazardous liquid through a pipeline by gravity;
- (3) Transportation of a hazardous liquid through any of the following low-stress pipelines:
 - (i) A pipeline subject to safety regulations of the U.S. Coast Guard; or
 - (ii) A pipeline that serves refining, manufacturing, or truck, rail, or vessel terminal facilities, if the pipeline is less than one mile long (measured outside facility grounds) and does not cross an offshore area or a waterway currently used for commercial navigation;
- (4) Transportation of petroleum through an onshore rural gathering line that does not meet the definition of a “regulated rural gathering line” as provided in §195.11. This exception does not apply to gathering lines in the inlets of the Gulf of Mexico subject to §195.413;

- (5) Transportation of hazardous liquid or carbon dioxide in an offshore pipeline in state waters where the pipeline is located upstream from the outlet flange of the following farthest downstream facility: The facility where hydrocarbons or carbon dioxide are produced or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed;
 - (6) Transportation of hazardous liquid or carbon dioxide in a pipeline on the OCS where the pipeline is located upstream of the point at which operating responsibility transfers from a producing operator to a transporting operator;
 - (7) A pipeline segment upstream (generally seaward) of the last valve on the last production facility on the OCS where a pipeline on the OCS is producer-operated and crosses into state waters without first connecting to a transporting operator's facility on the OCS. Safety equipment protecting PHMSA-regulated pipeline segments is not excluded. A producing operator of a segment falling within this exception may petition the Administrator, under §190.9 of this chapter, for approval to operate under PHMSA regulations governing pipeline design, construction, operation, and maintenance;
 - (8) Transportation of hazardous liquid or carbon dioxide through onshore production (including flow lines), refining, or manufacturing facilities or storage or in-plant piping systems associated with such facilities;
 - (9) Transportation of hazardous liquid or carbon dioxide:
 - (i) By vessel, aircraft, tank truck, tank car, or other non-pipeline mode of transportation;
or
 - (ii) Through facilities located on the grounds of a materials transportation terminal if the facilities are used exclusively to transfer hazardous liquid or carbon dioxide between non-pipeline modes of transportation or between a non-pipeline mode and a pipeline. These facilities do not include any device and associated piping that are necessary to control pressure in the pipeline under §195.406(b); or
 - (10) Transportation of carbon dioxide downstream from the applicable following point:
 - (i) The inlet of a compressor used in the injection of carbon dioxide for oil recovery operations, or the point where recycled carbon dioxide enters the injection system, whichever is farther upstream; or
 - (ii) The connection of the first branch pipeline in the production field where the pipeline transports carbon dioxide to an injection well or to a header or manifold from which a pipeline branches to an injection well.
- (c) *Breakout tanks.* Breakout tanks subject to this Part must comply with requirements that apply specifically to breakout tanks and, to the extent applicable, with requirements that apply to pipeline systems and pipeline facilities. If a conflict exists between a requirement that applies specifically to breakout tanks and a requirement that applies to pipeline systems or pipeline facilities, the requirement that applies specifically to breakout tanks prevails. Anhydrous ammonia breakout tanks need not comply with §§195.132(b), 195.205(b), 195.242(c) and (d), 195.264(b) and (e), 195.307, 195.428(c) and (d), and 195.432(b) and (c).

49 CFR 195.2 Definitions (Applicable)

Exposed underwater pipeline means an underwater pipeline where the top of the pipe protrudes above the underwater natural bottom (as determined by recognized and generally accepted practices) in waters less than 15 feet (4.6 meters) deep, as measured from mean low water.

Gathering line means a pipeline 219.1 mm (8 $\frac{5}{8}$ in) or less nominal outside diameter that transports petroleum from a production facility.

Gulf of Mexico and its inlets means the waters from the mean high water mark of the coast of the Gulf of Mexico and its inlets open to the sea (excluding rivers, tidal marshes, lakes, and canals) seaward to include the territorial sea and Outer Continental Shelf to a depth of 15 feet (4.6 meters), as measured from the mean low water.

Hazard to navigation means, for the purposes of this part, a pipeline where the top of the pipe is less than 12 inches (305 millimeters) below the underwater natural bottom (as determined by recognized and generally accepted practices) in waters less than 15 feet (4.6 meters) deep, as measured from the mean low water.

Hazardous liquid means petroleum, petroleum products, anhydrous ammonia, or ethanol.

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).

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.

Outer Continental Shelf means all submerged lands lying seaward and outside the area of lands beneath navigable waters as defined in Section 2 of the Submerged Lands Act (43 U.S.C. 1301) and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.

Production facility means piping or equipment used in the production, extraction, recovery, lifting, stabilization, separation or treating of petroleum or carbon dioxide, or associated storage or measurement. (To be a production facility under this definition, piping or equipment must be used in the process of extracting petroleum or carbon dioxide from the ground or from facilities where CO₂ is produced, and preparing it for transportation by pipeline. This includes piping between treatment plants which extract carbon dioxide, and facilities utilized for the injection of carbon dioxide for recovery operations.)

SUMMARY: Cover at time of burial (49 CFR 195.248)

- Crossing of inland bodies of water with a width of at least 100' from high water mark to high water mark – 48"
- Deep water port and safety zones – 48"
- Gulf of Mexico and its inlets in waters less than 15' deep as measured from mean low water – 36"
- Other offshore areas under water less than 12' deep as measured from mean low water – 36"
- Any other area – 30"
- Allows for exceptions to the burial requirements for all but the Gulf of Mexico and its inlets if

- It is impractical to comply with the minimum cover requirements; and
- Additional protection is provided that is equivalent to the minimum required cover

Full Text: 49 CFR 195.248 Cover

(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 underwater natural bottom (as determined by recognized and generally accepted practices), as applicable, complies with the following table:

Location	Cover inches (millimeters)	
	For normal excavation	For rock excavation ¹
Industrial, commercial, and residential areas	36 (914)	30 (762)
Crossing of inland bodies of water with a width of at least 100 feet (30.5 meters) from high water mark to high water mark	48 (1219)	18 (457)
Drainage ditches at public roads and railroads	36 (914)	36 (914)
Deepwater port safety zones	48 (1219)	24 (610)
Gulf of Mexico and its inlets in waters less than 15 feet (4.6 meters) deep as measured from mean low water	36 (914)	18 (457)
Other offshore areas under water less than 12 ft (3.7 meters) deep as measured from mean low water	36 (914)	18 (457)
Any other area	30 (762)	18 (457)

¹Rock excavation is any excavation that requires blasting or removal by equivalent means.

(b) Except for the Gulf of Mexico and its inlets in waters less than 15 feet (4.6 meters) deep, 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.

SUMMARY: Right-of-way and crossings inspections (49 CFR 195.412)

- Patrol requirements for pipeline right-of-way: 26/year
- Crossing under navigable waterway: every five years

Full Text: 49 CFR 195.412 Inspection of rights-of-way and crossings under navigable waters.

- (a) Each operator shall, at intervals not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface conditions on or adjacent to each pipeline right-of-way. Methods of inspection include walking, driving, flying or other appropriate means of traversing the 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.

SUMMARY: Underwater inspection and reburial of pipelines in Gulf of Mexico and its inlets (49 CFR 195.413)

- Operators are required to identify their pipelines located in the Gulf of Mexico and its inlets, where the water is less than 15 feet deep as measured from mean low water. Rivers, tidal marshes, lakes, and canals are excluded. Operators may determine where the water depth of the Gulf of Mexico and its inlets is 15 feet or less by referencing USGS maps or depth charts, USCG water depth maps or tables, or their own construction and maintenance records.
- Operators should assess the risk of such pipelines being exposed or being a hazard to navigation. Using this information, operators must establish the frequency for inspecting each pipeline, based on risk, any suitable method, or a combination of methods, for underwater pipeline inspection based upon conditions required by a pipeline's specific environment.
- If an operator discovers that its pipeline is an exposed underwater pipeline or poses a hazard to navigation, report to the NRC within 24 hours, mark the location of the pipeline within 7 days after discovery. Within 6 months, bury the pipeline with 36" of cover from underwater natural bottom.

Full Text: 49 CFR 195.413 Underwater inspection and reburial of pipelines in the Gulf of Mexico and its inlets.

- (a) Except for gathering lines of 4½ inches (114mm) nominal outside diameter or smaller, each operator shall prepare and follow a procedure to identify its pipelines in the Gulf of Mexico and its inlets in waters less than 15 feet (4.6 meters) deep as measured from mean low water that are at risk of being an exposed underwater pipeline or a hazard to navigation. The procedures must be in effect August 10, 2005.
- (b) Each operator shall conduct appropriate periodic underwater inspections of its pipelines in the Gulf of Mexico and its inlets in waters less than 15 feet (4.6 meters) deep as measured from mean low water based on the identified risk.

- (c) If an operator discovers that its pipeline is an exposed underwater pipeline or poses a hazard to navigation, the operator shall—
- (1) Promptly, but not later than 24 hours after discovery, notify the National Response Center, telephone: 1-800-424-8802, of the location and, if available, the geographic coordinates of that pipeline.
 - (2) Promptly, but not later than 7 days after discovery, mark the location of the pipeline in accordance with 33 CFR Part 64 at the ends of the pipeline segment and at intervals of not over 500 yards (457 meters) long, except that a pipeline segment less than 200 yards (183 meters) long need only be marked at the center; and
 - (3) Within 6 months after discovery, or not later than November 1 of the following year if the 6 month period is later than November 1 of the year of discovery, bury the pipeline so that the top of the pipe is 36 inches (914 millimeters) below the underwater natural bottom (as determined by recognized and generally accepted practices) for normal excavation or 18 inches (457 millimeters) for rock excavation.
 - (i) An operator may employ engineered alternatives to burial that meet or exceed the level of protection provided by burial.
 - (ii) If an operator cannot obtain required state or Federal permits in time to comply with this section, it must notify OPS; specify whether the required permit is State or Federal; and, justify the delay.

SUMMARY: Abandonment of pipelines (49 CFR 195.59)

- Operators must report abandonment of pipelines offshore or in commercially navigable waterways.

Full Text: 49 CFR 195.59 Abandonment or deactivation of facilities.

For each abandoned offshore pipeline facility or each abandoned onshore pipeline facility that crosses over, under or through a commercially navigable waterway, the last operator of that facility must file a report upon abandonment of that facility.

- (a) The preferred method to submit data on pipeline facilities abandoned after October 10, 2000 is to the National Pipeline Mapping System (NPMS) in accordance with the NPMS “Standards for Pipeline and Liquefied Natural Gas Operator Submissions.” To obtain a copy of the NPMS Standards, please refer to the NPMS homepage at <http://www.npms.phmsa.dot.gov> or contact the NPMS National Repository at 703-317-3073. A digital data format is preferred, but hard copy submissions are acceptable if they comply with the NPMS Standards. In addition to the NPMS-required attributes, operators must submit the date of abandonment, diameter, method of abandonment, and certification that, to the best of the operator's knowledge, all of the reasonably available information requested was provided and, to the best of the operator's knowledge, the abandonment was completed in accordance with applicable laws. Refer to the NPMS Standards for details in preparing your data for submission. The NPMS Standards also include details of how

to submit data. Alternatively, operators may submit reports by mail, fax or e-mail to the Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Information Resources Manager, PHP-10, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001; fax (202) 366-4566; e-mail, "InformationResourcesManager@phmsa.dot.gov". The information in the report must contain all reasonably available information related to the facility, including information in the possession of a third party. The report must contain the location, size, date, method of abandonment, and a certification that the facility has been abandoned in accordance with all applicable laws.

SUMMARY: National Pipeline Mapping System (49 CFR 195.61)

- Hazardous Liquids operators must submit annual updates to the National Pipeline Mapping system by June 15, annually.
- Information includes geospatial attributes of pipelines, contact information.
- NOTE: Offshore information is not currently displayed in the NPMS but is scheduled to be included and viewable to the public by March 31, 2020.

Full Text: 49 CFR 195.61 National Pipeline Mapping System.

- (a) Each operator of a hazardous liquid pipeline facility must provide the following geospatial data to PHMSA for that facility:
- (1) Geospatial data, attributes, metadata and transmittal letter appropriate for use in the National Pipeline Mapping System. Acceptable formats and additional information are specified in the NPMS Operator Standards manual available at www.npms.phmsa.dot.gov or by contacting the PHMSA Geographic Information Systems Manager at (202) 366-4595.
 - (2) The name of and address for the operator.
 - (3) The name and contact information of a pipeline company employee, to be displayed on a public Web site, who will serve as a contact for questions from the general public about the operator's NPMS data.
- (b) This information must be submitted each year, on or before June 15, representing assets as of December 31 of the previous year. If no changes have occurred since the previous year's submission, the operator must refer to the information provided in the NPMS Operator Standards manual available at www.npms.phmsa.dot.gov or contact the PHMSA Geographic Information Systems Manager at (202) 366-4595.