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Jurisdictional Determination of Hazardous Liquids Pipeline Systems

49 CFR §195

Karl Leger

Outline

1. Definitions [§195.2]
2. Jurisdiction within facility boundary limits, on pipelines and in tank farms.
3. The impact overpressure protection may have on pipeline jurisdictions.
4. Crossing Bays, Ports, and Navigable Waterways [Federally Identified]
5. Does ownership matter?
6. Operator responsibilities with respect to jurisdictional decisions.
7. Requesting PHMSA jurisdiction over pipelines that are in part subject to the RRC and PHMSA.
8. Requesting a single agency to have sole jurisdiction over assets that are in part subject to PHMSA/State Partner jurisdictions.
9. Take Aways
10. Questions

Hazardous Liquid Pipeline Systems

Examples:

- HL Underground Storage
- Refining & Chemical
- Manufacturing
- Terminals
- Pipelines transporting non-petroleum fuels which are flammable, toxic, or would be harmful to the environment if released in significant quantities.
- CO_2 Sequestration

Hazardous Liquid

(§195.2 Definitions)

Petroleum means crude oil, condensate, natural gasoline, natural gas liquids, and liquefied petroleum gas.

Petroleum product means flammable, toxic, or corrosive products obtained from distilling and processing of crude oil, unfinished oils, natural gas liquids, blend stocks and other miscellaneous hydrocarbon compounds.

Corrosive product means "corrosive material" as defined by § 173.136 Class 8-Definitions of this chapter.

Carbon dioxide means a fluid consisting of more than 90 percent carbon dioxide molecules compressed to a supercritical state.

Hazardous Liquid

(§195.2 Definitions)

Flammable product means "flammable liquid" as defined by § 173.120 Class 3-Definitions of this chapter.

Hazardous liquid means petroleum, petroleum products, anhydrous ammonia, and ethanol or other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities.

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).

Nonpetroleum Hazardous Liquids

Study of Nonpetroleum Hazardous Liquids Transported by Pipeline Pursuant to the Safety, Regulatory Certainty, and Job Create Act of 2011, Section 17

"Additionally, Section 14 of the Act clarified PHMSA's authority to issue regulations for pipelines transporting nonpetroleum fuels, including biofuels that are flammable, toxic, corrosive, or that would be harmful to the environment if released in significant quantities."

(See §195.2. Definitions. Hazardous Liquid)

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In-Plant Piping
(§195.2 Definitions)

In-plant piping system means piping that is located on the grounds of a plant and used to transfer hazardous liquid or carbon dioxide between plant facilities or between plant facilities and a pipeline or other mode of transportation, not including any device and associated piping that are necessary to control pressure in the pipeline under §195.406(b).

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

Pipeline facility means new and existing pipe, rights-of-way and any equipment, facility, or building used in the transportation of hazardous liquids or carbon dioxide.

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Breakout Tanks

(§195.2 Definitions)

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

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.

Miscellaneous

(§195.2 Definitions)

Low-stress pipeline means a hazardous liquid pipeline that is operated in its entirety at a stress level of 20 percent or less of the specified minimum yield strength of the line pipe.

Operator means a person who owns or operates pipeline facilities. An operator may make arrangements with another person for the performance of any action required by this part. However, the operator is not thereby relieved from the responsibility for compliance with any requirement of this part. (§195.10)

Navigable Waterways

Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. [USACOE, other agency definitions may differ such as NPMS navigable waterway list].

A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity.

Navigable Waterways – Texas RRC

Navigable streams are waters having a width of 30’ from the mouth up, regardless of dry seasons.

Includes the entire bed, not just the area covered by flowing water.

Marine Transportation

- Transfer lines between vessels and marine transportation-related facilities are subject to safety requirements of the U.S. Coast Guard (33 CFR Parts 154 and 156).

- Dock loading arm or manifold up to the first valve after the line enters the SPCC containment or secondary containment if the facilities are not protected by the SPCC plans.

Regulated vs Non-Regulated Examples
(PHMSA Hazardous Liquids)

Regulated

- Hazardous Liquid
- Biofuels (e.g., ethanol)
- Anhydrous Ammonia
- Highly Volatile Liquids
- Carbon Dioxide (CO_2)
- Ethylene, propylene, butadiene, benzene, toluene, xylene, etc.

Non-Regulated

- Liquid Chlorine
- Liquid Sodium hydroxide
- Sulfuric Acid
- Inorganic chemicals (i.e., NOT carbon based)

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Why Conduct & Document a Jurisdictional Determination?

- Establishes pipeline & facilities regulatory jurisdiction (PHMSA, USCG, OSHA, EPA, FERC).
- ID regulated pipeline jurisdiction start/stop points.
- Understand key nuances regarding ownership of facilities, NPMS, HCA's, navigable waterways, etc., and documentation of operator decisions regarding jurisdiction.
- Understand an operator's regulatory options in requesting regulatory jurisdiction of a single agency when assets are partially subject to PHMSA/RRC jurisdiction.
- Recognize the importance of developing programs, procedures, training and qualifications of personnel to the higher regulatory compliance standard where multiple regulatory compliance standards may apply.

Pipeline Jurisdiction – Key Considerations

- Is the transported commodity regulated by PHMSA/state partner (§ 191/192)?
- Has the regulated commodity been transported via a PL?
- Have facility boundaries, and PL start/stop points been identified (e.g., OPP location, in plant piping)?
- Has the location of pressure sources been identified (e.g., pumps, other lines)?
- Have all crossings been identified (e.g., roads, water, railroads)?
- Have all High Consequence Areas been identified?
- Have all non-pipeline transportation facilities been identified?
- Is all or part of facilities OSHA PSM regulated?
- Do exemptions apply?

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Hazardous Liquids Jurisdictional Determination

Consider the following:

- Ownership does not impact jurisdictional determination.
- Federal/State Agency Requirements.
- HL Jurisdiction: often begins at the suction side of a pump.
- Location of Overpressure Protection & Valve/regulating/metering stations.
- Tank Farms (e.g., PHMSA regulated, Breakout Tanks, Facilities Tankage).
- PHMSA, when considering exemptions, will not recognize pipelines as separate systems just because they are labeled as different/independent pipelines. Remember – if one segment is regulated, all connected segments will most likely be regulated.
- PHMSA vs shared regulatory jurisdictions.

Jurisdictional Determination (RRC vs PHMSA)

- RRC has (as required) incorporated all PHMSA regulations by reference.
- The RRC may impose requirements that go **beyond** PHMSA requirements but may NOT condone anything that is not at least as stringent as the PHMSA requirements.
- RRC may deny a “Special Permit” request by its own authority. (§190.341)
- If the RRC wants to grant a “Special Permit”, it must be approved by PHMSA before it is valid.
- The RRC, absent a violation of state law, may not deny a “Special Permit” approved by PHMSA.

Jurisdictional Determination Process

1. Is the commodity regulated under Part 195?
    1. No - Part 195 does NOT apply. Document. End.
    2. Yes – Go to 2 below to perform Jurisdictional Determination.
2. Define every segment of the pipeline (start, end, rural/non-rural areas, public thoroughfare & navigable & non-navigable waterway crossings, high consequence areas, non-pipeline transportation facilities, overpressure protection, O.D., other agency jurisdictions, etc.)

Jurisdictional Determination Process

3. Evaluate Exemptions
    a. Transportation in a gaseous state (§195.1(b)(1))
    b. Transportation via gravity (§195.1(b)(2))
    c. Transportation via a low-stress pipeline subject to regulation by the USCG **OR** 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 (§195.1(b)(3))
    d. An onshore rural gathering line that does not meet the definition of a "regulated rural gathering line" as provided in § 195.11. (§195.1(b)(4))

Jurisdictional Determination Process

3. Evaluate Exemptions
    e. Is it 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? (§195.1(b)(5))
    f. Is it 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;(§195.1(b)(6))

Jurisdictional Determination Process

3. Evaluate Exemptions
   g. Is it 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. (§195.1(b)(7))
   h. Transportation through onshore production (including flow lines), refining, or manufacturing facilities or storage or in-plant piping systems associated with such facilities. (§195.1(b)(8))

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Jurisdictional Determination Process

3. Evaluate Exemptions
   i. Is it Transportation by vessel, aircraft, tank truck, tank car, or other non-pipeline mode of transportation OR *through facilities located on the grounds of a materials transportation terminal if the facilities are used exclusively to transfer between non-pipeline modes of transportation or between a non-pipeline mode and a pipeline. (§195.1(b)(9))*
   j. Transportation of CO_2 downstream from the inlet of a compressor used in the injection of CO_2 for oil recovery operations, or the point where recycled CO_2 enters the injection system, whichever is farther upstream; OR The connection of the first branch pipeline in the production field where the pipeline transports CO_2 to an injection well or to a header or manifold from which a pipeline branches to an injection well. (§195.1(b)(10))

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Jurisdictional Determination Process

4. Document preliminary jurisdictional determination.
5. Research Written Interpretations [§190.11(b)].
6. Consult (negotiate?) with the RRC and/or PHMSA.
7. Optional - Request a Written Interpretation [§190.11(b)].
8. Implement changes if necessary.
9. Document, Document, DOCUMENT!!!

Facilities and Commodities
(Examples)

Facilities

- HL Underground Storage
- Airport Terminal
- Subsea Pipelines
- Offshore Production
- HL Terminal

Commodity

- Crude oil
- HVLs
- Anhydrous ammonia, ethanol
- Other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities.
- Diesel Pipeline

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In-Plant Piping System
(HL Underground Storage Cavern)

Details

- Enters facility by pipeline
- Exits facility by pipeline
- No production, refining, manufacturing activities performed
- Facility characterized as Storage Dome Operations

Jurisdiction

PHMSA Regulated.

- Receives HL via PHMSA regulated pipeline.
- Stores HL incidental to their movement by PL.
- Transports HL from the facility by PL.

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Two Pipelines

Details

- First, 8”collection line operating <20% SMYS. Transports stove oil from a Unocal facility in Portland to a Santa Fe pl in Eugene.
- Second, 12” delivery line operating <20% SMYS. Transports gasoline (Olympic pl) from Washington State to a Unocal facility in Portland.

Jurisdiction

PHMSA Regulated.

- §195 applies to entire pipeline systems.
- The 20% SMYS exemption is N/A.
- Neither pipeline is a unique system.
- PL’s are part of a larger system, that introduce products into the system or take products from it.
- Ownership is not relevant to Jurisdictional determination.

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Terminals

Facts

- Terminals = breakout tanks, terminal storage tanks, related piping and truck loading racks connected to terminal tanks by separate piping.
- If a tank is used or could be used as a breakout tank at any time = It remains a breakout tank regardless of use as a distribution tank.
- PL transportation is complete when the HL is delivered to a terminal storage tank, or to a breakout tank to the extent subsequent transportation is by another mode.
- Terminal piping (exempt) is used exclusively to transfer product from a storage or breakout tank to a truck loading rack.
- In such a situation, pipeline safety jurisdiction stops at the outlet of the tank.
- Most tanks are both breakout tanks and distribution tanks.

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Terminal Jurisdiction

"Pipeline transportation is complete when the hazardous liquid is delivered to a terminal storage tank, or to a breakout tank to the extent subsequent transportation is by another mode. The piping within the terminal used exclusively to transfer product from a storage or breakout tank to a truck loading rack and the truck loading rack itself are not part of pipeline facilities subject to regulation under 49 U.S.C. Chap. 601. In such a situation, pipeline safety jurisdiction stops at the outlet of the tank."

Sioux Falls Fire Department. July 24, 1995 [PI-95-028]

Subsea Pipeline(s)

(Oil Production Facilities located in a harbor)

Details

- Multi-phase: crude oil (~2%), natural gas, and water mix.
- Not considered sales quality crude.
- Platform H_2O separation (Gravity) …Oil % increased to 25 – 40%.
- Separated H_2O reinjected into formation per state and city mandates and formation pressure management.
- Multi-phase: crude oil (~25 - 40%), natural gas, and water mix transported onshore via pipeline.
- Final separation at onshore facility.

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Subsea Pipeline(s)
(Oil Production facilities)

Details

- First separation occurs in the harbor.
- Is not performed to assist production operations.
- Further onshore processing does not alter the fact that the pipeline commodity already separated upstream.
- Sales quality of crude not a factor in jurisdictional determination.

Jurisdiction

PHMSA Regulated.

- Does not meet the §195.1(b)(5) exemption.
- HLPL is located downstream of first separation.

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FERC – Residue PL Jurisdiction (2019)

- FERC uses the “Primary Function Test” to determine jurisdiction of residue pipeline facilities located downstream of processing plants. [1983, 1994 & continues refinement].
- Residue pipelines > 5 miles are jurisdictional transmission lines.
- This bright line five-mile test for the jurisdictional status emerged in cases that applied the modified “primary function” test announced in 1994.
- The mechanical application of the 5-mile test has been criticized as arbitrary and capricious and is an unexplained shift away from a more flexible approach to the analysis of jurisdiction.

Abandoned HL Pipelines

Details

- Physically disconnected pipeline
  - No longer transports a hazardous liquid.
  - Permanently removed from service .
  - Cleaned & Purged and sealed [§ 195.402(c)(10)] (N_2 blanket).
  - Does not cross over, under, through a commercially navigable waterway.
  - May require other agencies approval.
    - COE, EPA, State, County

Abandoned per 195.402(c)(1 0) requirements no longer apply.

- May not be returned to service unless the pl was maintained per Part 195 or meets the requirements of a newly designed and constructed pipeline.

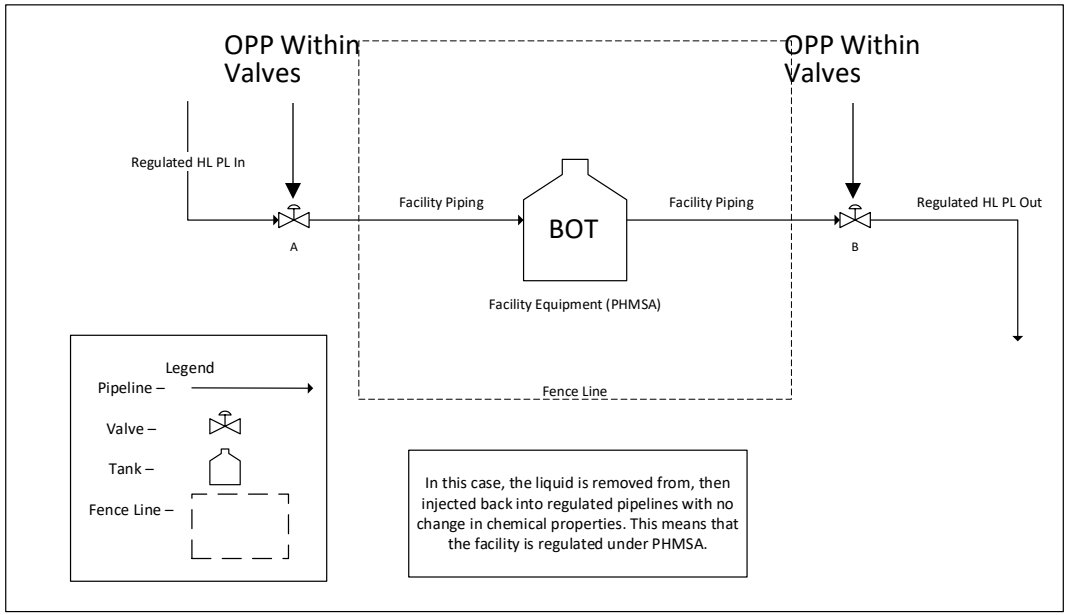
Breakout Tanks

- PHMSA regulated transportation into/out of tank.
- Relives Surge.
- Overpressure Protection.

"Potential For"

If you car seal a tank but the tank has the potential for relieving surge…..

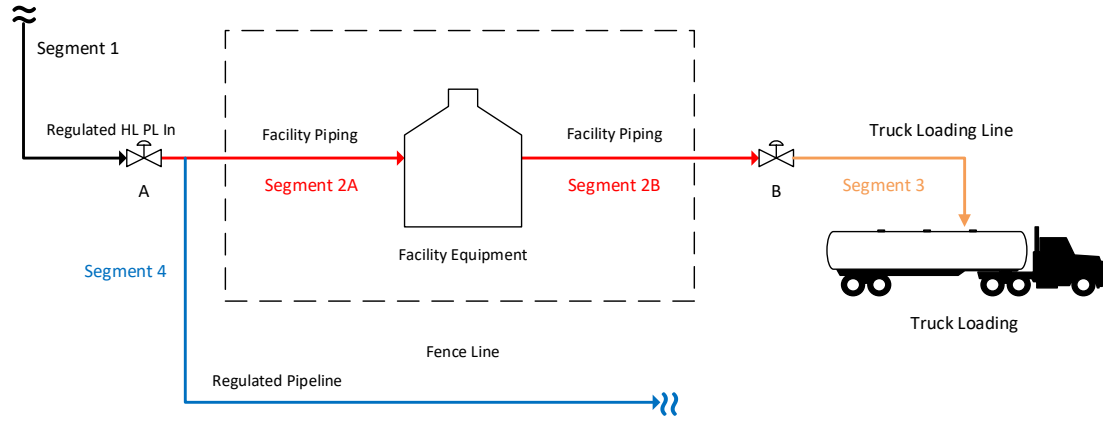
Jurisdictional Determination
(HL PL with Tankage)



Questions:

- Is the Tank a Breakout Tank?
- Where does Over Pressure Protection have to be?

Jurisdictional Determination
(HL PL with Trucking)



Scenario 1: Pipeline to trucking facility <1 mile outside fence.
- PHMSA Jurisdiction?
- OPP?
- BOT, Yes or No?
- Fencing Required, Yes or No?
- What is the impact of navigable water crossing between facility and truck loading?

Legend

Pipeline –

Valve –

Tank –

Fence Line –

Questions:

- Is the Tank a Breakout Tank?
- Where does Over Pressure Protection have to be?

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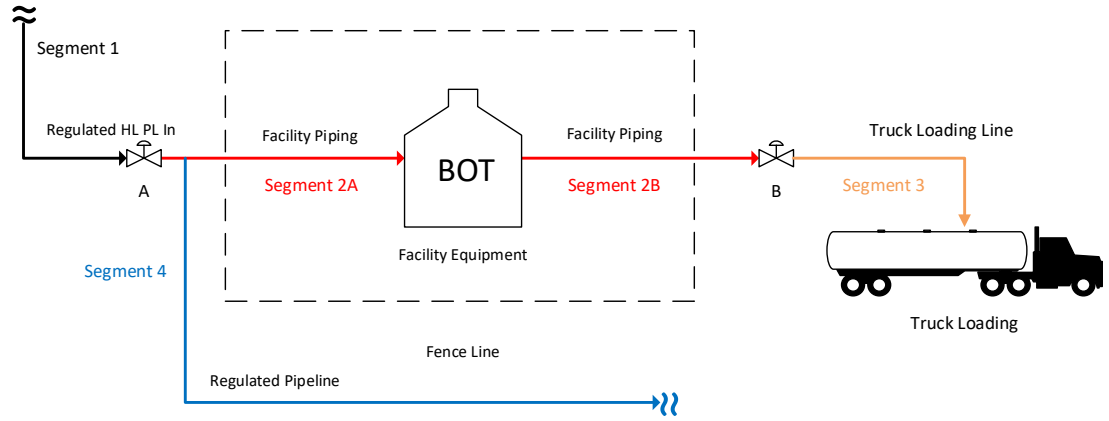
Jurisdictional Determination
(HL PL with Trucking)



Scenario 2: Pipeline to trucking facility >1 mile outside fence.
- PHMSA Jurisdiction?
- OPP?
- BOT, Yes or No?
- Fencing Required, Yes or No?
- What is the impact of navigable water crossing between facility and truck loading?

Legend

Pipeline –

Valve –

Tank –

Fence Line –

Questions:

- Is the Tank a Breakout Tank?
- Where does Over Pressure Protection have to be?

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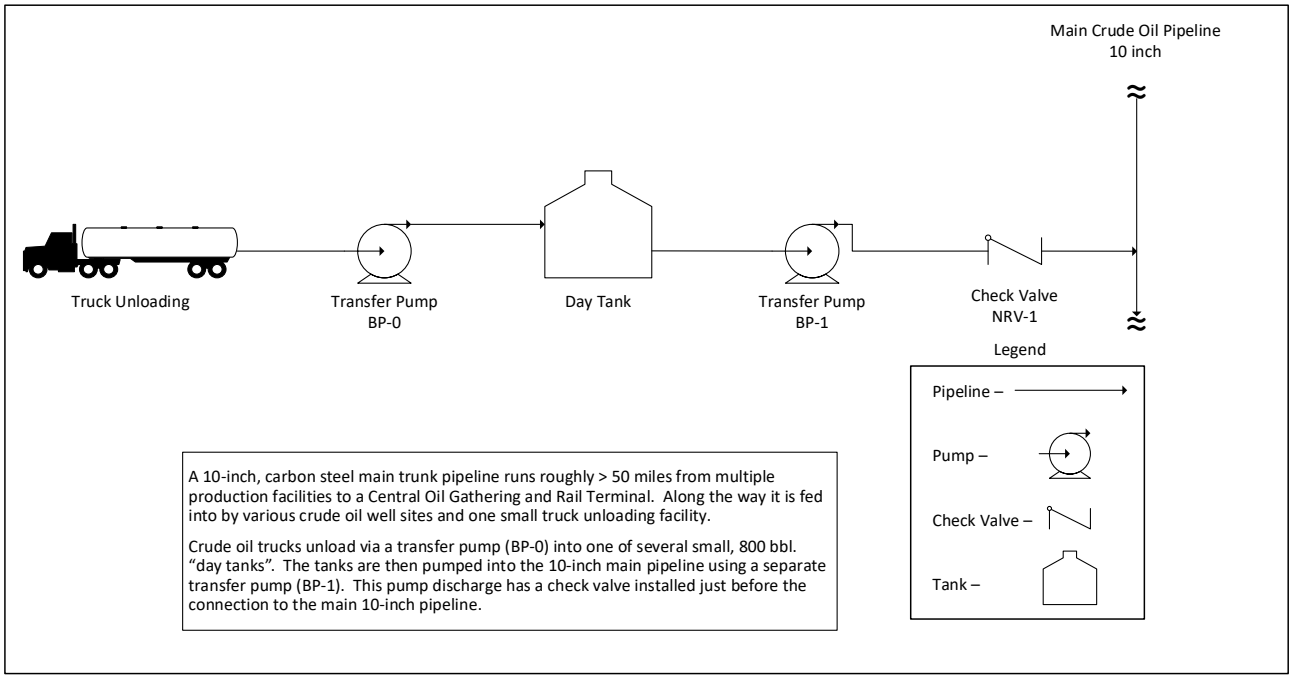
Jurisdictional Determination

(Truck Unloading to HL PL)



Questions:

- Is the day tank a Breakout Tank?
- What information is needed to fully understand the PL configuration for jurisdictional determination?
- What is the starting point of the HL pipeline?

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Jurisdictional Determination
(Essential Elements)

1. Determine if commodity being transported is a Regulated Hazardous Liquid.
2. Determine if line is a low-stress line subject to regulation by the USCG or serves refining, manufacturing, or truck, rail, or vessel terminal facilities (< 1 mile long outside the fence and not crossing a waterway currently used for commercial navigation).
3. Define the Start and End Points of the PL system.
   - Change in ownership ≠ a new pipeline system
4. Identify all regulated appurtenances.
   - Pumps, Launchers/Receivers, Overpressure Protection, valves, etc.
5. Identify additional state requirements (if any).
6. Determine IMP applicability (in or could affect an HCA).
7. Back-up your decisions with technically sound analysis and decisions.
8. Non-regulated PL's should be monitored for potential for the pipeline becoming regulated.
9. Document … Document … DOCUMENT!!… TVC

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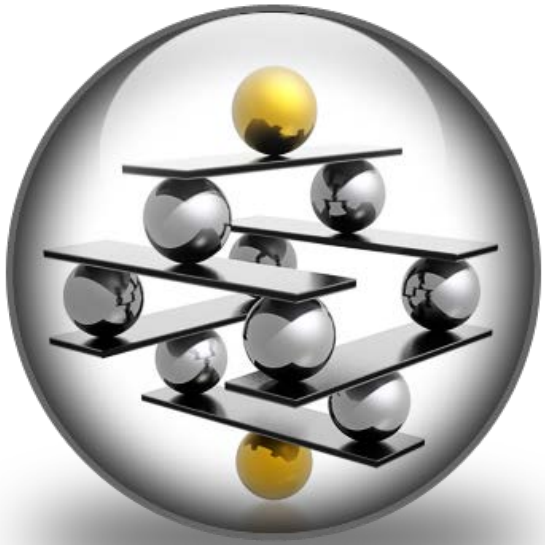
Pipeline Ownership

Pipeline ownership

Is Not

a Relevant Jurisdictional Consideration



Decision Making Documentation

- Cite code
- Use interpretations
- Document **everything**

Does OSHA's PSM Standard, 29 CFR §1910.119 apply to LNG export facilities?

- No. OSHA's PSM Standard, 29 CFR § 1910.119 does not apply to LNG facilities, including export facilities subject to 49 CFR Part 193.

- OSHA PSM may apply if exempted from PHMSA coverage. Example: 49 CFR §193.2001(b)(2) exempts PHSMA from coverage of "LNG facilities used in the course of natural gas treatment or hydrocarbon extraction which do not store LNG."

- Therefore, PSM may apply to LNG pretreatment plants located offsite or beyond the property boundary of a LNG export terminal which involve natural gas treatment, or hydrocarbon extraction facilities that do not store LNG.

US Coast Guard

Applies to new or modified LNG or LHG facilities on a waterway

LHG = Liquefied Hazardous Gas

- Initial requirements for approval
- Requirements beyond 195 and RRC
- Waterway Suitability Assessment
- Deep water ports

US Coast Guard

- Location, Location, Location (jurisdiction ends at last valve in secondary containment).
- For Office of Pipeline Safety (PHMSA) jurisdictional facilities, additional considerations for OSHA Process Safety Management (PSM) and state/local agencies.
- The Railroad Commission considers pipelines that cross a public road (e.g. regulated by TxDOT) or when the pipeline crosses property ownership as triggers for pipeline safety jurisdiction of the pipeline.

US Coast Guard

Marine Terminals

- The USCG's jurisdiction extends from the first isolation valve inside the secondary containment to the vessel. This includes the loading and unloading of oil in bulk from a vessel to an onshore facility, as well as the oil-carrying vessel and the connecting piping. Note, if no secondary containment, jurisdiction extends to the valve closest to the tank.

LNG Facilities

- The USCG regulates LNG facilities that affect the safety and security of port areas and navigable waterways. This includes matters related to navigation safety, vessel engineering and safety standards, and the safety of facilities or equipment located near navigable waters.

Other Facilities and Vessels

- The USCG regulates facilities and vessels located on or adjacent to waterways under U.S. jurisdiction. This authority comes from the Maritime Transportation Security Act of 2002 (MTSA).

Regulatory Standards

- When multiple agencies are involved, the more stringent regulation will be applied.
- Recognize the importance of developing programs, procedures, training and qualifications of personnel to the higher regulatory compliance standard where multiple regulatory compliance standards may apply.
- Personnel performing covered tasks must be qualified to more stringent regulation(s).
- Ensure all decisions are documented.
- Applicability of Operator's Higher Standard(s) [Regulated/Ops Excellence]

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Agency Agreements

- Where multiple state and federal agencies have potentially over-lapping jurisdiction, a Memorandum of Understanding or an Interagency Agreement may be utilized.

- Each agency's role and responsibilities are established. Ensures coordination.

- For example, the 2004 PHMSA Interagency Agreement on Liquified Natural Gas includes:
  - FERC – Lead for the National Environmental Policy Act (NEPA) review
  - DOT – Promulgate and enforce safety regulations
  - USCG – Safety and security of port areas
  - OSHA – Worker safety

- Other MOU's

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Overlapping Requirements

Examples

- OSHA PSM vs. PHMSA
- UNGS qualifications vs. pipeline OQs
- 194 – Response Plan vs. 195 – Emergency Response Plan
- EPA / TCEQ vs. PIPES Act of 2020 Section 114

  NOTE: Effective 06/18/2025 Section 114 was rescinded.

Agency Oversight Options

Understand the regulatory options an operator has in requesting regulatory jurisdiction of a single agency when assets are partially subject to PHMSA jurisdiction and partially subject to RRC jurisdiction.

Jurisdictional Waiver Requests

- When operators are subject to the jurisdiction of multiple agencies, they may request that all assets be covered under a single jurisdiction
- PHMSA will consult with the interstate agent when an interstate operator requests a waiver
- A State agency may consider a waiver of pipeline safety requirements subject to PHMSA concurrence

Jurisdictional Waiver Requests

Pipelines on the Outer Continental Shelf (OCS) that are producer-operated and cross into State waters without first connecting to a transporting operator's facility on the OCS, upstream (generally seaward) of the last valve on the last production facility on the OCS.

Safety equipment protecting PHMSA-regulated pipeline segments is not excluded.

Producing operators for those pipeline segments upstream of the last valve of the last production facility on the OCS may petition the Administrator, or designee, for approval to operate under PHMSA regulations governing pipeline design, construction, operation, and maintenance under 49 CFR 190.9;

Final Reminder

Once you have completed your Jurisdictional Determination:

1. National Pipeline Registry (New Operator, New Facilities…).
2. National Pipeline Mapping System Update.
3. Annual Report (Include new systems and or new lengths in next filing. Note, some instances may require an Annual Report update).
4. FERC regulated facilities are “Interstate Pipelines” NOT “Intrastate”. Update Annual Reporting….PHMSA inspects Interstate pipeline systems… may request state partner oversight.
5. One-Call mapping updates.

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Take Aways

- Jurisdiction will often begin at the suction side of a pump.
- Ownership does not impact a jurisdictional determination.
- Labeling pipelines as different/independent pipelines does not mean that PHMSA will see them as separate line systems when considering exemptions. Remember – if one segment is regulated, all connected segments may be regulated.
- You have a breakout tank if the tank is used or could be used to “Relieve Surges” and/or used for storage and then reinjected into a regulated pl system.
- The transportation of non-petroleum fuel may be a regulated as a PHMSA pipeline system.

Take Aways

- Protect yourself by performing and documenting a sufficient analysis to determine if you have a PHMSA regulated Hazardous Liquids Pipeline System.
- Cite the code wherever it is applicable.
- Cover every element of the exemption or determination.
- Keep it simple – inspectors will not read “between the lines.”

Questions

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