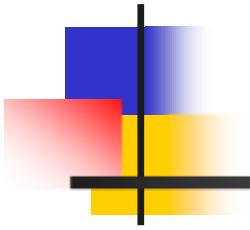


49 CFR 195 Regulatory Overview





Overview

- DOT – PHMSA – OPS
 - Relates to public safety, governs materials, design, construction, operations and maintenance
 - Applies to either transmission, distribution or jurisdictional production/gathering



PIPELINE CODES

49 CFR 190 – Enforcement

49 CFR 191 – Reporting Requirements

49 CFR 192 – Gas Pipelines

49 CFR 193 – LNG

49 CFR 194 – Emergency Response Oil

49 CFR 195 – Hazardous Liquids

49 CFR 199 – Drug Testing



OTHER DOCUMENTS

- PHMSA Code Interpretations
- PHMSA Alert or Advisory Bulletins
- PHMSA Waivers or Special Permits
- PHMSA Enforcement Documents
- Preambles to Amendments
- FAQ's



OTHER DOCUMENTS

- Association standards
- NACE, ASTM, API



OTHER DOCUMENTS

- PHMSA - <http://www.phmsa.dot.gov>
- Pipeline Safety - <http://www.phmsa.dot.gov/pipeline>
- Enforcement - <http://primis.phmsa.dot.gov/comm/reports/enforce/Enforcement.html>



PIPELINE CODES

Part

example -49 CFR 195 – Hazardous Liquid Pipelines

Part 195 is divided into subparts to address general topics.

example – Subpart G – Operator Qualification

Subparts are then further divided into specific topics by numbered section,

Example - §195.2 - Definitions



PIPELINE CODES

Each section is typically written with paragraphs and subparagraphs to break down the subjects more specifically into individual requirements.

Example - §195.406 (b) sets the criteria for the maximum pressure limit of 110 percent of the operating pressure.



PIPELINE CODES

- For complete understanding and application of a particular section, the section must be read in its entirety, from start to finish, noting punctuation.
- The operator is required to follow only those sections that are going to be specific to the type of pipeline he installs and operates.



49 CFR 190 – Enforcement

- Inspections and investigations
- PHMSA Notices
 - Warning Letter
 - Notice of Probable Violation
 - Notice of Amendment
 - Compliance Orders
 - Safety Orders
 - Penalties (Fines)



Pipeline Codes

CODE = LAW

Non compliance = \$\$\$\$\$\$\$\$\$



49 CFR 195

Transportation of Hazardous Liquids by Pipeline: Minimum Federal Safety Standards

- Section of code that governs design, operation, maintenance, and construction of Hazardous Liquid pipelines
- **MINIMUM STANDARDS**
- States may have additional regulations above those requirements



49 CFR 195

Transportation of Hazardous Liquids by Pipeline: Minimum Federal Safety Standards

- Divided into 8 different subparts with 3 appendices
 - Four Non-retroactive subparts
 - Four Retroactive Subparts



- INTRODUCTION
- RETROACTIVE SUBPARTS
 - **applying to past:** relating or applying to things that have happened in the past as well as the present
retroactive pay increases
- NON-RETROACTIVE SUBPARTS

RETROACTIVE SUBPARTS



- Subpart A – **General**
- §195.0 Scope.
- §195.1 Which pipelines are covered by this part?
- §195.2 Definitions.
- §195.3 Incorporation by reference
- §195.4 Compatibility necessary for transportation of hazardous liquids or carbon dioxide.

RETROACTIVE SUBPARTS



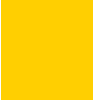
- §195.5 Conversion to service subject to this part.
- §195.6 Unusually Sensitive Areas (USAs)
- §195.8 Transportation of hazardous liquid or carbon dioxide in pipelines constructed with other than steel pipe.
- §195.9 Outer continental shelf pipelines
- §195.10 Responsibility of operator for compliance with this part.

RETROACTIVE SUBPARTS




- §195.11 What is a regulated rural gathering line and what requirements apply?
- §195.12 What requirements apply to low-stress pipelines in rural areas?


RETROACTIVE SUBPARTS

- 
- Subpart B – **Reporting and SRC's**
 - 195.48 Scope
 - 195.49 Annual report
 - 195.50 Reporting accidents.
 - 195.52 Telephonic notice of certain accidents.
 - 195.54 Accident reports.
 - 195.55 Reporting safety-related conditions.
 - 195.56 Filing safety-related condition reports.
 - 195.57 Filing offshore pipeline condition reports.
 - 195.58 Addressee for written reports.

RETROACTIVE SUBPARTS

- 
- 195.59 Abandonment or deactivation of facilities.
 - 195.60 Operator assistance in investigation.
 - 195.62 Supplies of accident report DOT Form 7000-1.
 - 195.63 OMB control number assigned to information collection.

RETROACTIVE SUBPARTS

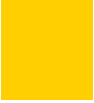
-  Subpart F – **Operations and Maintenance**
- 195.400 Scope.
- 195.401 General requirements.
- 195.402 Procedural manual for operations, maintenance, and emergencies.
- 195.403 Training.
- 195.404 Maps and Records.
- 195.405 Protection against ignitions and safe access/egress involving floating roofs
- 195.406 Maximum operating pressure.
- 195.408 Communications.

RETROACTIVE SUBPARTS



- 195.410 Line markers.
- 195.412 Inspection of rights-of-way and crossings under navigable waters.
- 195.413 Underwater inspection and reburial of pipelines in the Gulf of Mexico and its inlets.
- 195.414 Removed
- 195.420 Valve maintenance.
- 195.422 Pipeline repairs.
- 195.424 Pipe movement.
- 195.426 Scraper and sphere facilities.

RETROACTIVE SUBPARTS

- 
- 195.428 Overpressure safety devices and overflow protection systems
 - 195.430 Firefighting equipment.
 - 195.432 Breakout tanks.
 - 195.434 Signs.
 - 195.436 Security of facilities.
 - 195.438 Smoking or open flames.
 - 195.440 Public awareness
 - 195.442 Damage Prevention Program
 - 195.444 CPM leak detection.

RETROACTIVE SUBPARTS



- 195.446 Control room management.
- 195.450 High Consequence Areas - Definitions
- 195.452 Pipeline integrity management in high consequence areas

RETROACTIVE SUBPARTS



- Subpart H – **Corrosion Control**
- 195.551 What do the regulations in this subpart cover?
- 195.553 What special definitions apply to this subpart?
- 195.555 What are the qualifications for supervisors?
- 195.557 Which pipelines must have coating for external corrosion control?
- 195.559 What coating material may I use for external corrosion control?
- 195.561 When must I inspect pipe coating used for external corrosion control?

RETROACTIVE SUBPARTS



- 195.563 Which pipelines must have cathodic protection?
- 195.565 How do I install cathodic protection on breakout tanks?
- 195.567 Which pipelines must have test leads and how do I install and maintain the leads?
- 195.569 Do I have to examine exposed portions of buried pipelines?
- 195.571 What criteria must I use to determine the adequacy of cathodic protection?
- 195.573 What must I do to monitor external corrosion control?

RETROACTIVE SUBPARTS



- 195.573 What must I do to monitor external corrosion control?
- 195.575 Which facilities must I electrically isolate and what inspections, tests, and safeguards are required?
- 195.577 What must I do to alleviate interference currents?
- 195.579 What must I do to mitigate internal corrosion?
- 195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?

RETROACTIVE SUBPARTS



- 195.583 What must I do to monitor atmospheric corrosion control?
- 195.585 What must I do to correct corroded pipe?
- 195.587 What methods are available to determine the strength of corroded pipe?
- 195.588 What standards apply to direct assessment?
- 195.589 What corrosion control information do I have to maintain?


Non-Retroactive Subparts

- 
- Subpart C – **Design Requirements**
 - 195.100 Scope.
 - 195.101 Qualifying metallic components other than pipe.
 - 195.102 Design temperature.
 - 195.104 Variations in pressure.
 - 195.106 Internal design pressure.
 - 195.108 External pressure.
 - 195.110 External loads.
 - 195.111 Fracture propagation.
 - 195.112 New pipe.

Non-Retroactive Subparts

- 195.114 Used pipe.
- 195.116 Valves.
- 195.118 Fittings.
- 195.120 Passage of internal inspection devices.
- 195.122 Fabricated branch connections.
- 195.124 Closures.
- 195.126 Flange connection.
- 195.128 Station piping.
- 195.130 Fabricated assemblies.
- 195.132 Aboveground breakout tanks.
- 195.134 CPM leak detection

Non-Retroactive Subparts

-  Subpart D – **Construction**
- 195.200 Scope.
- 195.202 Compliance with specifications or standards.
- 195.204 Inspection - General.
- 195.205 Repair, alteration and reconstruction of aboveground breakout tanks that have been in service

- 195.206 Material inspection.
- 195.208 Welding of supports and braces.
- 195.210 Pipeline location.
- 195.212 Bending of pipe.

Non-Retroactive Subparts

- 195.212 Bending of pipe.
- 195.214 Welding procedures
- 195.216 Welding: Miter joints.
- 195.222 Welders: Qualification of welders.
- 195.224 Welding: Weather.
- 195.226 Welding: Arc burns.
- 195.228 Welds and welding inspection: Standards of acceptability.
- 195.230 Welds: Repair or removal of defects.
- 195.234 Welds: Nondestructive testing.

Non-Retroactive Subparts




- 195.246 Installation of pipe in a ditch.
- 195.248 Cover over buried pipeline.
- 195.250 Clearance between pipe and underground structures.
- 195.252 Backfilling.
- 195.254 Above ground components.
- 195.256 Crossing of railroads and highways. Valves:
General.
- 195.258 Valves: Location.
- 195.260 Pumping equipment.
- 195.262

Non-Retroactive Subparts




- 195.264 Above ground breakout tanks.
- 195.266 Construction records.

Non-Retroactive Subparts

-  Subpart E – **Pressure Testing**
- 195.300 Scope.
- 195.302 General requirements.
- 195.303 Risk-based alternative to pressure testing older hazardous liquid and carbon dioxide pipelines.
- 195.304 Test pressure.
- 195.305 Testing of components.
- 195.306 Test medium.
- 195.307 Pressure testing aboveground breakout tanks
- 195.308 Testing of tie-ins.
- 195.310 Records.

Non-Retroactive Subparts

- 
- Subpart G – **Operator Qualification**
 - 195.501 Scope.
 - 195.503 Definitions
 - 195.505 Qualification Program
 - 195.507 Recordkeeping
 - 195.509 General



49 CFR 195

Non-Retroactive Subparts

Subpart C

Sections 100 - 134

[Design Requirements](#)

Subpart D

Sections 200 - 266

[Construction](#)

Subpart E

Sections 300 - 310

[Pressure Testing](#)

Subpart G

Sections 501 - 509

[Operator Qualification](#)



49 CFR 195

Retroactive Subparts

- Are retroactive in scope
- Applied to all existing pipelines, regardless of the date of construction
- Govern operations and maintenance of pipeline facilities



49 CFR 195

Retroactive Subparts

Subpart A

Sections 0 - 13

General

Subpart B

Sections 48 - 64

Annual, Accident, and
Safety-Related
Condition Reporting

Subpart F

Sections 400 - 454

Operation and
Maintenance

Subpart H

Sections 551 - 591

Corrosion Control



Regulations

Layout

"Outline Format"

- ◆ Hierarchical layout
 - ◆ organizes the material by subject
 - ◆ underlying text defines the regulatory requirements for each code section



Regulations

Reading and Following the Flow

- ◆ Not just reading from the top to the bottom of the page
- ◆ **May** require moving through numerous sections of the code to get all the requirements



Regulations

Reading and Following the Flow

- ◆ Before starting to move back and forth through the code part, read the complete code section.
- ◆ Exceptions or differing requirements for various types of pipelines or operators may be identified further on in the regulation.



Regulations

Reading and Following the Flow

The grammar and construction of the phrases and sentences in the regulations must be examined to understand their full meaning.

The gas pipeline regulations have §192.15 rules of regulatory construction, to provide some guidance. It explains the following:



Rules of Regulatory Construction



- Part 193 for LNG has a similar section
- However, Part 195 for hazardous liquids does not
- However it is reasonable to conclude that the same concepts would apply



Rules of Regulatory Construction



Includes

May

May Not

Shall

Singular - Plural

Masculine -

Feminine



Rules of Regulatory Construction

- # "(a) As used in this part:
- # "Includes" means "including but not limited to."
- # "May" means "is permitted to" or "is authorized to."
- # "May not" means "is not permitted to" or "is not authorized to."
- # "Shall" is used in the mandatory and imperative sense.
- # (b) In this part:
- # (1) Words importing the singular include the plural;
- # (2) Words importing the plural include the singular; and,
- # (3) Words importing the masculine gender include the feminine."

Rules of Regulatory

Construction

Guideposts

#

Two small words, **or** along with **and**, as well as the **semicolon** play a big part in defining regulatory requirements



Rules of Regulatory Construction

Guideposts

- # The **semicolon** is used to link together all the clauses on the same outline level
- # If an **and** is used in the next to last clause, then all clauses are tied together with **and**
- # All the items listed are required

Rules of Regulatory

Construction

Guideposts

- # If an **or** is used, that is what ties the clauses together
- # Not all the items in the list may be required, or the operator may have a choice of actions for compliance



Rules of Regulatory Construction

Guideposts

- # Paragraph (d) in the Public Awareness regulation (§192.616 and §195.440) is a good example, listing five educational elements of an operator's plan.
- # The **semicolon** along with an **and** in (d)(4) indicates that all five items are required elements.



Rules of Regulatory Construction

Guideposts

- # A final example is the definition of "incident" from §191.3 which combines both **and** and **or**.
- # This definition require a "a release of gas" **and** at least one of two additional criteria.
- # The "accident" definition in §195.50 is worded somewhat differently, but still requires a release **and** any one of several additional events.



Once known as Waivers
are called Special Permits



Operator can be Waived from
Compliance with a Safety Standard
by means of a Special Permit

Intrastate - Petition to State

**Interstate - Petition to Regional
Office**



Alert Notices & Advisory Bulletins

- Alert Notices, a notice of a situation of immediate safety concern
- Advisory Bulletins, an advisory not of immediate safety concern.



Alert Notices & Advisory Bulletins



PHMSA uses Advisory Bulletins to inform affected pipeline operators and all Federal and state pipeline safety personnel of matters that have the potential of becoming safety and/or environmental risks.



Alert Notices & Advisory Bulletins



Inspections will often include questions on how the operator is responding to these notices and bulletins



For Better Understanding

- # Interpretations offer some clues
 - only apply only to the specific situation addressed in each operator's request.
- # Special Permits and Advisory Bulletins can also be used to further interpret the objective of the regulation.
- # These types of documents do not exist for every code section.



For Better Understanding

- # Reading the words is easy.
- # Understanding of a rule and its intent for compliance requirements can be a long and multifaceted process.



49 CFR 195

Regulations are either

SPECIFICATION or

PRESCRIPTIVE

Or

PERFORMANCE



SPECIFICATION REGULATION

Example – Once per calendar year not to exceed 15 months

Advantages:

- Easy to determine compliance
- Easy to determine course of action
- Give uniform means of compliance



SPECIFICATION REGULATION

Example – Once per calendar year not to exceed 15 months

Disadvantages:

- Does not allow for variation in environment, operating or physical characteristics
- Does not state safety level
- May require unnecessary cost



PERFORMANCE REGULATION

Example – §195.430 Firefighting equipment.
Each operator shall maintain adequate firefighting equipment

Advantages:

- Allows adaptation to individual situations
- Encourages development of new equipment
- Most economical solution to achieve the desired level of safety
- Promotes safety and not letter of law



PERFORMANCE REGULATION

Example – §195.430 Firefighting equipment.
Each operator shall maintain adequate firefighting equipment

Disadvantages:

- Difficult to determine compliance
- Operators may not understand what is needed
- May create improper solutions and safety problems



SUBPART A - GENERAL

§195.2 – Definitions

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



INCORPORATED REFERENCE

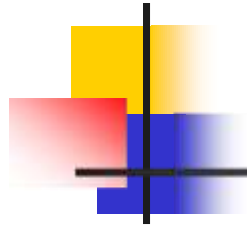
195.3 Incorporation by Reference

Any document or portions thereof incorporated by reference are included as though set out in full. When only a portion is referenced, the remainder is not incorporated.



INCORPORATED REFERENCE

- List of standards
- Must follow standards as if specifically written in code
- Must be same edition as code references
 - i.e. – API Standard 1104, “Welding of Pipelines and Related Facilities,” 20th edition, October 2005



CODE OVERVIEW

QUESTIONS?