

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Department of Transportation
(DOT)

Applicability of Regulations

- Apply to persons whom transports, packages, or manufactures packaging for the transportation of, hazardous material.
- Commerce means trade or transportation in the jurisdiction of the United States
 - within a single state;
 - between a place in a state and a place outside of the state; or
 - that affects trade or transportation between a place in a state and place outside of the state.
- Includes all forms of transportation including: Pipelines, Trucking, Rail, and Air

Hazardous Material

A Hazardous Material is defined as a substance or material, that which when transported in commerce, is capable of posing an unreasonable risk to:

- Health
- Safety
- Property

Generally:

Any material that, because of its chemical properties, may cause injury, loss of life, or damage to property or the environment if involved in an accident during transportation.



<http://www.truckaccidents360.com/blog/2829/truck-accident-chemical-spill-closes-texas-highway-for-days/>

The Hazardous Materials Regulations

Title 49, Code of Federal Regulations governs the transportation of hazardous materials. The Hazardous Materials Regulations or HMR are found in Parts 171 through 180 of Title 49, CFR. The contents of Parts 171 through 180 include:

- Part 171 – General information, regulations, and definitions
- Part 172 – Hazardous materials table, special provisions, hazardous materials communications, emergency response information, and training requirements
- Part 173 – Shippers – General requirements for shipments and packagings
- Part 174 – Carriage by rail
- Part 175 – Carriage by aircraft
- Part 176 – Carriage by vessel
- Part 177 – Carriage by public highway
- Part 178 – Specifications for packaging
- Part 179 – Specifications for tank cars
- Part 180 – Continuing qualification and maintenance of packagings



U.S. Department
of Transportation
**Federal Railroad
Administration**



Who Must Comply With the HMR?

No person may offer or accept a hazardous material for transportation in commerce unless ...

(c) Each person who performs a function covered by or having an effect on a specification or activity prescribed in part 178, 179, or 180 of this subchapter, an approval issued under this subchapter, or an exemption or special permit issued under subchapter A of this chapter, must perform the function in accordance with that specification, approval, or special permit, as appropriate.

(d) No person may offer or accept a hazardous material for transportation in commerce or transport a hazardous material in commerce unless that person is registered in conformance with subpart G of part 107

(e) No person may offer or accept a hazardous material for transportation in commerce unless

(e) No person may offer or accept a hazardous material for transportation in commerce unless the hazardous material is properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by applicable requirements of this subchapter or an exemption or special permit, approval, or registration issued under this subchapter or subchapter A of this chapter.

...as required or authorized by applicable requirements of this subchapter or an exemption or special permit, approval, or registration issued under this subchapter or subchapter A of this chapter.



[§171.2](#)
[§171.2\(e\)](#)

Misrepresenting Packaging or Containers

Section 171.2(g) – No person may represent, mark, certify, sell, or offer a packaging or container as meeting the requirements...

(g) No person may represent, mark, certify, sell, or offer a packaging or container as meeting the requirements of this subchapter governing its use in the transportation of a hazardous material in commerce unless the packaging or container is manufactured, fabricated, marked, maintained, reconditioned, repaired, and retested in accordance with the applicable requirements of this subchapter. No person may represent,

(g) No person may represent, mark, certify, sell, or offer a packaging or container as meeting the requirements approval, or registration issued under this subchapter or subchapter A of this chapter unless the packaging or container is manufactured, fabricated, marked, maintained, reconditioned, repaired, and retested in accordance with the applicable requirements of the exemption, special permit, approval, or registration issued under this subchapter or subchapter A of this chapter. The requirements of this paragraph apply whether or not the packaging or container is used or to be used for the transportation of a hazardous material.



[§171.2\(g\)](#)

Penalties for Violating HMR

Violations of the Hazardous Materials Regulations may result in:

- Civil penalties: \$250 to \$100,000
- Criminal penalties: \$250,000 to \$500,000, plus up to ten years in prison

Hazardous Materials Training – It's the Law!

II.—LIST OF FREQUENTLY CITED VIOLATIONS—Continued		
Violation description	Section or cite	Baseline assessment
13. Failure to condemn a cylinder when required (e.g., permanent expansion of 10% [5% for certain exemption cylinders], internal or external corrosion, denting, bulging, evidence of rough usage).	180.205(i)	\$6,000 to \$10,800.
14. Failure to properly mark a condemned cylinder or render it incapable of holding pressure.	180.205(i)(2)	\$800.
15. Failure to notify the cylinder owner in writing when a cylinder has been condemned.	180.205(i)(2)	\$1,000.
16. Failure to perform hydrostatic retesting at the minimum specified test pressure.	180.209(a)(1)	\$2,100 to \$5,200.
17. Marking a star on a cylinder that does not qualify for that mark	180.209(b)	\$2,000 to \$4,000.
18. Marking a "+" sign on a cylinder without determining the average or minimum wall stress by calculation or reference to CGA Pamphlet C-5.	173.302a(b)	\$2,000 to \$4,000.
19. Marking a cylinder in or on the sidewall when not permitted by the applicable specification.	180.213(b)	\$6,000 to \$10,800.



[§171.1](#)
[§171.3](#)

Hazardous Materials Standards

The Hazardous Materials Regulations set forth standards for:

- Classification
- Packaging
- Hazard communication
- Emergency response information
- Hazmat employee training
- Hazmat transportation
- Incident reporting
- Security



Hazardous Material Table

The Hazardous Material Table lists materials that have been designated as hazardous by the US DOT

HM Table

The Hazardous Materials Table is located in 49 CFR, §172.101. It contains more than 3,000 proper shipping names of substances most commonly shipped or carried as hazardous materials. The HMT specifies or references requirements pertaining to labeling, packaging, quantity limits aboard aircraft and stowage requirements for vessels based on proper shipping name, hazard class, identification number, and packing group. The table format contains 14 columns in 10 major headings, numbered 1 thru 10.

§172.101 Hazardous Materials Table

Sym- bols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identifica- tion Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Excep- tions	Non- bulk	Bulk	Passenger aircraft/rail	Cargo air- craft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Acetaldehyde	3	UN1089	I	3	A3, B16, T11, TP2, TP7	None	201 ..	243 ..	Forbidden	30 L	E	
A	Acetaldehyde ammonia	9	UN1841	III	9	IP8, IP6	155 ...	204 ..	240 ..	200 kg	200 kg	A	34
	Acetaldehyde oxime	3	UN2332	III	3	B1, IB3, T4, TP1	150 ...	203 ..	242 ..	60 L	220 L	A	



[§172.101\(a\)](#)

Definition of Shipping Papers

As used in the HMR, a shipping paper for hazardous materials transportation is any document that contains the information required to describe the hazardous material being transported. It may include:

- a shipping order
- a bill of lading
- a manifest
- or other type shipping documents

Diamond Vogel Paint

Billing Address:
same as delivery

Description	Total Quantity
PGII	225 kg

Materials are properly classified,
and are in proper condition for
transportation of the Department of
Transportation.

Signature: J.S. Doe
Date: 6-25-05

SHIPPING WITH YOU!

172.202
172.203
172.204

Basic Rules for Shipping Papers

The basic rule for shipping papers is that if you transport any quantity of a hazardous material, a properly prepared shipping paper must accompany the shipment. This includes materials identified as hazardous substances, hazardous wastes, and marine pollutants. Unless excepted, each person who offers a hazardous material for transportation must accurately describe the hazardous material on the shipping paper in the manner required by the HMR.



HM	No. of Units	Shipping Description	Total Quantity
X	6 bottles	Flammable liquids, toxic, n.o.s., 3, UN1992, PG III (contains Acetone)	6 liters
555-1234			
ned materials are properly classified, described, and are in proper condition for transportation acco			



[\\$172.200](#)

Mixed Shipments on the same Shipping Paper

When hazardous materials and non-hazardous materials are entered on a shipping paper, the hazardous materials entries must:

- Be entered first, before the non-hazardous material; or
- Be either highlighted or entered in a contrasting color that clearly contrasts with any description for non-hazardous materials; or
- Be identified with the letter 'X' in the column captioned 'HM' before the proper shipping name. In the case of a hazardous substance, the letter 'X' may be replaced with the letters 'RQ' for Reportable Quantity.

Even if the hazardous material is entered first or in a contrasting color, you may still place an X or, where appropriate, RQ, in the HM column.

HM	No. of Units	Shipping Description	Total Quantity
RQ	20 Boxes	RQ, Ammonium dichromate, 5.1, UN1439, PGII	170 kg
X	10 Boxes	Butyric Acid, 8, UN2820, PGIII	205 kg
X	4 Drums	Flammable Liquids, n.o.s., UN1993, PGI (Furan & Acetone)	200 gal
	25 Boxes	Newspaper Supplements	300 kg



General Preparation of Shipping Papers

When a description of a hazardous material is required to be included on a shipping paper, that description must conform to these following requirements. They include:

- ☐ Legibility
- ☐ Codes and Abbreviations
- ☐ Additional Information
- ☐ Multiple-Page Shipping Papers
- ☐ Emergency Response Telephone Number
- ☐ Documents and Forms

Except for hazardous wastes, there is no specific shipping paper 'form' required for a hazardous material shipment. A shipper may use a shipping paper appropriate to its operation.

1 of 1 pages

Diamond Vogel Paint

Delivery Address:
McCoy & Hatfield Paints
123 Fighting Lane
Mason-Dixon, VA 23231

Billing Address:
same as delivery

HM	No. of Units	Shipping Description	Total Quantity
X	10 Ctns	Paint, 3, UN1263, PGII	225 kg

Emergency Contact: (202) 555-1234

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signed Jack Doe
Date 6-25-05

SAFETY BEGINS WITH YOU!



[§172.201](#)

[§172.604](#)

Retention of shipping papers:

The shipper must keep a copy of the shipping paper, either electronic or paper, for 2 years after the material is accepted by the initial carrier. The carrier must keep a copy of the shipping paper for 1 year after initial acceptance. However, both the shipper and the carrier must keep a copy of a Hazardous Waste Manifest (HWM) for 3 years after it is accepted by the initial carrier.

In all cases, a copy must be accessible at or available through the principal place of business of the shipper and the carrier, respectively, and must be made available if requested by an authorized Federal, State, or local agency at reasonable times and locations.



HM	No. of Units	Shipping Description	Total Quantity
X	10 Ctns.	Paint, 3, UN1263, PGII	225 kg

Emergency Contact: (202) 555-1234

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signed *Matt Brown*
Date *5/24/2005*

SAFETY BEGINS WITH YOU!



[§172.201\(e\)](#)

Shipping Description of the Hazardous Material

The shipping description for a hazardous material must include these six items in the proper order. These items include:

- The basic description, in one of these two orders:
 - Proper shipping name, Hazard class/division number, ID number, and Packing group; or
 - ID number, Proper shipping name, Hazard class/division number, and Packing group
- Total quantity of material
- Number and type of package(s)

HM	No. of Units	Shipping Description				Total Quantity
X	20 drums	Benzene, 9, UN1114, PGII				1100 gal
	▲	▲	▲	▲	▲	▲
	6	1	2	3	4	5



The four items of information that combine to form the basic description are found in Columns 2-5 of the HMT. The ability to provide the proper response to a hazardous materials incident depends on having the correct identification of the hazardous material involved and this means accurately describing the material on the shipping paper.



[§172.202](#)

Packaging Compatibility

Packaging must be:

- Compatible with the lading
- Not permeable
- Non-bulk packaging manufactured to meet UN performance standards dated after October 1, 1994



[§173.24\(d\)-\(e\)](#)

Marking Applicability

When you offer a hazardous material for transportation, or transport a hazardous material, you must mark each package, freight container, and transport vehicle containing the hazardous material in the manner required by the HMR.



[\\$172.300](#)

Display of Hazard Class on Labels

You must display the appropriate hazard class or division number in the lower corner of both primary and subsidiary hazard label.



[§172.402](#)

DOT Hazardous Label Classes

Class 1: Explosives

- Division 1.1 Explosives with a mass explosion hazard
- Division 1.2 Explosives with a projection hazard
- Division 1.3 Explosives with predominantly a fire hazard
- Division 1.4 Explosives with no significant blast hazard
- Division 1.5 Very insensitive explosives
- Division 1.6 Extremely insensitive explosive articles



Class 2: Gases

- Division 2.1 Flammable gases
- Division 2.2 Nonflammable gases
- Division 2.3 Poison gas
- Division 2.4 Corrosive gases

Class 3: Flammable liquids.

- Division 3.1 Flashpoint below -18°C (0°F)
- Division 3.2 Flashpoint -18°C and above, but less than 23°C (73°F)
- Division 3.3 Flashpoint 23°C and up to 61°C (141°F)



Class 4: Flammable solids; spontaneously combustible materials; and materials that are dangerous when wet

- Division 4.1 Flammable solids
- Division 4.2 Spontaneously combustible materials
- Division 4.3 Materials that are dangerous when wet

DOT Hazardous Label Classes

Class 5: Oxidizers and organic peroxides

- Division 5.1 Oxidizers
- Division 5.2 Organic peroxides

Class 6: Poisons and etiologic materials

- Division 6.1 Poisonous materials
- Division 6.2 Etiologic (infectious) materials

Class 7: Radioactive materials

- Any material, or combination of materials, that spontaneously gives off ionizing radiation. It has a specific activity greater than 0.002 microcuries per gram.

Class 8: Corrosives

- A material, liquid or solid, that causes visible destruction or irreversible alteration to human skin or a liquid that has a severe corrosion rate on steel or aluminum.

Class 9: Miscellaneous

- A material which presents a hazard during transport, but which is not included in any other hazard class (such as a hazardous substance or a hazardous waste).

ORM-D: Other regulated material

- A material which, although otherwise subjected to regulations, presents a limited hazard during transportation due to its form, quantity and packaging



Marking Requirements for Non-Bulk Packagings

When you offer a hazardous material for transportation in a non-bulk packaging, you must mark the package with the required information for the material as shown in the §172.101 Hazardous Materials Table. The required information includes:

- Proper Shipping Name
- Identification Number
- Technical Name(s)
- Special Permit Information
- Consignee's or Consignor's Name and Address



[§172.301](#)
[§172.203](#)

Hazardous Substances in Non-bulk Packagings

You must mark each non-bulk package containing a hazardous substance with the name of the hazardous substance, in parentheses, in association with the proper shipping name. If the material contains two or more hazardous substances, identify at least two hazardous substances, including the two with the lowest reportable quantities (RQs). For a hazardous waste, the waste code (e.g., D001) may be used to identify the hazardous substance. Mark "RQ" on the package in association with the proper shipping name.

EPA
WASTE NO. **D001**



[§172.324](#)

General Marking Requirements for Bulk Packagings

You must mark a bulk packaging containing hazardous material with that material's identification number. Each bulk packaging must remain marked when it is emptied unless it is sufficiently cleaned of residue and purged of vapors to remove any potential hazard. If you use a bulk packaging under the terms of a special permit, you must plainly and durably mark "DOT-SP" on it, followed by the special permit number assigned. Select each button to learn more about the general marking requirements for bulk packaging.

- ☒ Identification numbers
- ☐ Size of markings
- ☐ Empty packagings
- ☐ Fumigant markings

The ID number markings are required on each side and each end for packaging with a capacity of 3,785 L (1,000 gallons) or more, and for cylinders permanently installed on a tube trailer motor vehicle. ID number markings are required on only two opposing sides for packaging with a capacity of less than 3,785 L.



[\\$172.302](#)

General Marking Requirements

The HMR states that markings must be:

- Durable
- Written in English
- Printed on or affixed to the surface of the package
- Displayed on a sharply contrasting color background
- Unobscured by other labels or attachments
- Located away from other marking



[§172.304](#)

Carrier Requirements (Highway)



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

Carriage by Highway

Part 177, "Carriage by Highway," applies to private motor carriers, common motor carriers and contract motor carriers who accept and/or transport hazardous materials. Some of these requirements, such as shipping papers, marking, labeling and packaging, were previously discussed in Modules 1-5.



[§177.800\(a\)](#)
[§177.804](#)

The Federal Motor Carrier Safety Regulations (FMCSR)

Although the FMCSR are found in other sections as well, the regulations in 49 CFR Parts 382, 383, 385, 387, and 390-397 (excluding sections 397.3 and 397.9) refer to:

- Driver qualifications
- Hours of service
- Equipment standards
- Driving and parking rules
- Alcohol and controlled substances
- Financial responsibility
- Operational requirements



[\\$177.804](#)

Motor Carrier / Shipper Responsibilities

You may not offer or accept a hazardous material for transportation in commerce unless:

- You (or your company, agency, etc.) are registered as required
 - Hazardous Materials Registration is required with PHMSA, unless excepted. This is different from any registration required by Federal Motor Carriers Safety Administration (FMCSA,) or any other government agency.
- You have properly classed, described, packaged, marked and labeled the hazardous material
- The hazardous material is in proper condition for shipment in accordance with the HMR



[\\$107.606](#)

[\\$107.608](#)

[\\$177.801](#)

[\\$171.2](#)

Carrier and Shipper Responsibilities

- Definition of Hazmat Employee
- Driver Training Requirements
- Additional Motor Carrier Requirements



Definition of Hazmat Employee

A "hazmat employee" includes anyone employed by a hazmat employer who, during the course of employment:

- Loads, unloads, or handles hazardous materials
- Manufactures, tests, reconditions, repairs, modifies, marks, or otherwise represents packagings as qualified for use in the transportation of hazardous materials
- Prepares hazardous materials for transportation
- Is responsible for the safety of transporting hazardous materials
- Operates a vehicle used to transport hazardous materials
- Performs any function subject to the HMR or performs a function directly affecting hazardous materials transportation safety

ALL hazmat employees must be trained in accordance with the general hazmat employee training requirements in the HMR.



[\\$171.8](#)
[\\$172.702](#)
[\\$172.704](#)

Required Hazmat Training

The Hazardous Materials Regulations require hazmat employers to certify the training of those employees who perform functions covered in the HMR, such as loading, unloading, or handling shipments of hazardous material incidental to their movement; preparing shipping papers; preparing hazardous material for transport; and operating a vehicle used to transport hazardous material. Training must include:

- General awareness/familiarization training
- Function-specific training (including modal-specific training)
- Safety training
- Security awareness training
- In-depth security training (some employers; see §172.800)

You can get additional information about Hazardous Materials Transportation Security Training at <http://hazmat.dot.gov>.



[§172.704](#)

[§172.700](#)

Driver Training Requirements

Motor carriers must comply with the HMR and train and test employees in the prescribed regulations, including those in the FMCSR. General compliance and testing for motor carriers is covered in §177.800 (c).



[§172.702](#)

[§172.704](#)

[§177.800](#)

[§177.816](#)

Additional Motor Carrier Requirements

Section 177.816 requires driver training that includes pre-trip safety inspection; use of vehicle controls and equipment; operation of vehicle; procedures for maneuvering tunnels, bridges, and railroad crossings; requirements pertaining to attendance of vehicles, parking, smoking, routing, and incident reporting; and loading and unloading of materials.

Section 177.816 also identifies additional training for drivers of cargo tanks and vehicles with portable tanks.



[§172.700](#)

[§177.800](#)

[§177.816](#)

[§383.121](#)

Content of the Hazardous Materials Transportation Training Modules

The DOT Hazardous Materials Transportation Training Modules consist of:

- Introduction
- Module 1 – The Hazardous Materials Table
- Module 2 – Shipping Papers
- Module 3 – Marking and Labeling
- Module 4 – Placarding
- Module 5 – Packaging
- Module 6a – Carrier Requirements (Highway)
- Module 6b – Carrier Requirements (Air)
- Module 6c – Carrier Requirements (Rail)
- Module 6d – Carrier Requirements (Water)

Pipeline Regulations

49 CFR Part

- 190 Pipeline safety programs and rulemaking procedures
- 191 Transportation of natural and other gas by pipeline; annual reports, incident reports, and safety-related condition reports
- 192 Transportation of natural and other gas by pipeline: minimum Federal safety standards
- 193 Liquefied natural gas facilities: Federal safety standards
- 194 Response plans for onshore oil pipelines
- 195 Transportation of hazardous liquids and CO₂ by pipeline
- 196-197 [Reserved]
- 198 Regulations for grants to aid state pipeline safety programs
- 199 Requires operators to have drug and alcohol program. Operators are required to test employees for drugs and alcohol.

Which Hazardous Liquid Pipelines are Covered

- 1) Any pipeline that transports a highly volatile liquid (HVL);
- (2) Transportation through any pipeline, other than a gathering line, that has a maximum operating pressure (MOP) greater than 20-percent of the specified minimum yield strength;
- (3) Any pipeline segment that crosses a waterway currently used for commercial navigation;
- (4) Transportation of petroleum in any of the following onshore gathering lines:
 - (i) A pipeline located in a non-rural area;
 - (ii) To the extent provided in §195.11, a regulated rural gathering line defined in §195.11; or
 - (iii) To the extent provided in §195.413, a pipeline located in an inlet of the Gulf of Mexico.
- (5) Transportation of a hazardous liquid or carbon dioxide through a low-stress pipeline or segment of pipeline that:
 - (i) Is in a non-rural area; or
 - (ii) Meets the criteria defined in §195.12(a).
- (6) For purposes of the reporting requirements in subpart B, a rural low-stress pipeline of any diameter.

(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) A pipeline subject to safety regulations of the U.S. Coast Guard;
- (4) A low-stress 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;
- (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 a 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 a 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).

Natural Gas Pipeline Operators

Required to prepare and implement a Operator Qualifications Program

Prescribes the minimum requirements for operator qualification of individuals performing covered tasks on a pipeline facility.

Operator Qualifications Plan Must

1. Identify covered tasks (operation and maintenance activities affecting the integrity of the pipeline and required by the safety code);
2. Evaluate individuals performing covered tasks to prove that they are qualified;
3. Allow individuals who are not qualified to perform a covered task if directed and observed by an individual who is qualified;
4. Evaluate an individual if there is reason to believe that the individual's performance of a covered task contributed to an incident;
5. Evaluate an individual if there is reason to believe that the individual is no longer qualified to perform a covered task;
6. Communicate changes that affect covered tasks to individuals performing those covered tasks;
7. Establish re-evaluation intervals; (usually every 3 years) and
8. Describe how training will be used in the OQ program where appropriate (new hires, refresher training for existing employees who transfer to new jobs or fail revaluations, etc.).

Operator Qualifications Plan Must

In addition to these minimum requirements, the written OQ plan should:

- Name the person who will be responsible for ensuring that the requirements of the plan are carried out;
- Identify records necessary to carry out the program and where those records will be kept

IDENTIFY COVERED TASKS

A covered task is defined as any task that:

1. Is performed on a pipeline facility;
2. Is an operations or maintenance task;
3. Is performed as a requirement of this part (Part 192 or Part 195); and
4. Affects the operation or integrity of the pipeline

Common Operations & Maintenance Activities

- Investigating leak/odor complaints
- Locating and marking lines
- Controlling and monitoring pipeline pressures and product flows
- Operating an odorizer
- Monitoring natural gas odorization levels (“sniff tests”)
- Repairing leaks
- Inspecting and testing pressure regulator station and overpressure protection
- Tapping pipelines under pressure
- Conducting leakage surveys
- Joining pipe for maintenance
- Inspecting critical valves
- Welding on a pipeline for maintenance
- Excavating and backfilling
- Repairing coating on existing steel pipelines
- Measuring pipe-to-soil potential
- Coating aboveground piping
- Inspecting for atmospheric corrosion
- Inspecting the condition of exposed pipe or pipe coating
- Installing/replacing a rectifier
- Installing/replacing an anode or test station
- Inspecting a rectifier
- Visually inspecting for internal corrosion
- Purging
- Patrolling
- Isolating sections of pipe or stopping off or otherwise controlling the flow of gas or product to a work site

EVALUATE INDIVIDUALS WHO PERFORM COVERED TASKS

Evaluate personal performing tasks through:

- Written test
- Oral exams
- Observations (on the job, simulation , or class room)
- Must prove the individual possesses the necessary knowledge, skills and abilities to perform the covered task and recognize and react to “Abnormal Operating Conditions (AOCs).”

Abnormal Operating Conditions (AOCs).”

Abnormal operating condition means a condition that may indicate a malfunction of a component or deviation from normal operations that may:

- Indicate a condition exceeding design limits; or
- Result in a hazard(s) to persons, property, or the environment.
- Typical AOCs
 - Fire
 - Odor report
 - Leaking gas or product
 - Component failure
 - Operation of a safety device
 - Unintended valve closure
 - Overpressure
 - Under-odorized gas

Training:

- New hires
- Individuals taking on new tasks (transferred or promoted)
- Individuals who fail one or more evaluations

Recordkeeping:

Maintain training and evaluation records on each individual

Retained for minimum 5 years after the evaluation is no longer required

Contractors

Must be qualified in accordance to “THE OPERATOR’S OQ PLAN” for the task contracted

- Operator evaluates the contractor individuals using company evaluations.
- Operator allows the contractor to evaluate its personnel using either the operator’s evaluations for the tasks or the contractor’s evaluations for the tasks.
 - In the latter case, the operator should obtain copies of the contractor’s evaluations and ensure they address the same knowledge, skills, abilities and AOCs as the operator’s evaluations for the same tasks. Evaluations must be documented, e.g., test questions are written and observation evaluations include checklists indicating what is observed. These evaluations must listed in the operator’s OQ plan as evaluations accepted for these tasks.
- Require the contractor to be evaluated by a third party (e.g., NACE, NCCER, etc.).
 - The operator should contact the third party, obtain copies of the evaluations and verify that they address the same knowledge, skills, abilities and AOCs as the operator’s evaluations for the same tasks. Evaluations must be documented, e.g., test questions are written and observation evaluations include checklists indicating what is observed. These evaluations must be listed in your OQ plan as evaluations you accept for these tasks.
- Do not qualify contractor personnel; have one of the operator’s qualified individuals observe and direct non-qualified contractor personnel.

Excavators Required to Call Before They Dig



Dialing 811, the national three-digit “Call-Before-You Dig” number, is a free service that connects excavators anywhere in the country to One-Call centers to alert utility owners of planned digging exercises.

Texas

Texas 811

811 or 1-800-344-8377

www.texas811.org

[Contractors Web Ticket Entry](#)

Lone Star Notification Center

811 or 1-800-669-8344

www.lsnconecall.com

[Contractors Web Ticket Entry](#)

[Back to Top](#)