



O&M and Records Presentation



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SUBPART L - OPERATIONS

O&M and EMERGENCY PLANS





§ 192.603 General provisions

(a) No person may operate a segment of pipeline unless it is operated in accordance with this subpart.

Each operator shall keep records necessary to administer the procedures established under § 192.605.

The Associate Administrator or the State Agency that has submitted a current certification under the pipeline safety laws, (49 U.S.C. 60101 *et seq.*) with respect to the pipeline facility governed by an operator's plans and procedures may, after notice and opportunity for hearing as provided in 49 CFR 190.206 or the relevant State procedures, require the operator to amend its plans and procedures as necessary to provide a reasonable level of safety





§ 192.605 Procedural manual for O&M/E

(b) Maintenance and Normal Operations

Procedures are required anytime a pipeline is:

- OPERATED
- Replaced
- Changed
- Extended
- Located
- Inspected
- Evaluated
- Removed
- Etc...

Procedures are required anytime the product is:

- STARTED
- Stopped
- Changed
- Compressed
- Added to
- Purged
- Released
- Etc





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations

SPECIFICITY!

- WHO
- WHAT
- WHEN
- WHERE
- WHY
- HOW
- Other Information to Provide Clarity

CLARITY!

- CORROSION REFERENCES
- CORPORATE SAFETY DOCS
- EMERGENCY PLANS
- MEASUREMENT DOCS
- DESIGN DOCUMENTS
- COMPONENT MANUALS





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations





§ 192.605 Procedural manual for O&M/E (b)(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and subpart M

The plans should be an outline for compliance.

- They should either say what you do
- OR
- You should do what they say

Either way will be in compliance following your own procedures.

The right combination of specificity and detail is needed to achieve O&M goals and accomplish compliance.





Procedures: Active Voice

Use an **Active Voice** vs a **Passive Voice**

Example:

“The incident needs to be reported to the gas controller”

Active Voice:

“The supervisor or the first employee on the scene will report the incident within 15 minutes of arriving at the site and report the incident to the gas control center by telephone or company radio.”





§ 192.605 Procedural manual for O&M/E

(a) General

An Operator must have a written manual for conducting Operations, Maintenance activities and for Emergency response.

- Must be reviewed and updated (**if needed**) each calendar year, not to exceed 15 months
- Must be prepared before pipeline operation
- Must be available to operations and maintenance personnel
- **Transmission Operators must have procedures for Abnormal Operations**





§ 192.605 Procedural manual for O&M/E

(a) General

Short list of things looked at during Inspections

- O&M Revision History
- Management of Change Documentation
- Procedure Availability
- Emergency Manual Availability
- List of identified Abnormal Operations





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations



The O&M manual must include procedures for the following, **if applicable**, to provide safety during operations and maintenance





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations



Procedures must include:

- 1) Operating, maintaining, and repairing the pipeline
- 2) Controlling corrosion (ref. Subpart I)
- 3) Making construction records, maps, and operating history available to personnel





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations



Procedures must include:

- 4) Gathering data for reporting incidents under Part 191
- 5) Safely starting up and shutting down a pipeline
- 6) Purging, isolating, and maintaining compressor stations





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations

Supporting Documentation:

- Pressure Charts
- SCADA Data
- Maintenance Documents
- Work Orders
- Corrosion Readings
- Corrosion Inspections (Atmospheric)
- Construction As-Built
- Service Drawings
- Leak Surveys
- Maps
- Incident Reports
- Safety Related and AOC Reports
- Vault Inspections





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations



Procedures must include:

- 7) Starting, operating, and shutting down compressors
- 8) Periodic review of work and the effectiveness of existing procedures
- 9) Precautions and equipment need to ensure safety in a gaseous atmosphere





§ 192.605 Procedural manual for O&M/E

(b) Maintenance and Normal Operations

Support Documentation

Management of Change Documents

- Control Room
- Transmission
- Operator Qualifications

Training

- Programs
- Rosters
- Schedules

Compressor Maintenance Logs

Maintenance Documentation for:

- CGIs and Flame Packs (Calibration)
- Fire Extinguishers
- Air Bottles
- Air Filtration (Compressors)
- and Other Personal Protective Equipment





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations

Procedures must include:

10) Testing and Inspection of Bottle Type Holders

- i. Detecting corrosion and remaining strength of containers
- ii. Sampling and testing of gas dew points for corrosion control and/or interference in operations
- iii. Inspection of pressure limiting devices





§ 192.605 Procedural manual for O&M/E (b) Maintenance and Normal Operations

Procedures must include:

- 11) Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency procedures under § 192.615(a)(3) specifically apply to these reports.
- 12) Implementing the applicable control room management procedures required by § 192.631.





§ 192.605 Procedural manual for O&M/E

(b) Maintenance and Normal Operations



Support Documentation

- Leak Reports
- Field Survey Reports
- Emergency Repair Documents
- Incident/Accident Logs
- **Control Room**
 - Hand Over Documents
 - Failure/Repair Logs
 - Communication Logs





§ 192.605 Procedural manual for O&M/E (c) Abnormal Operations



For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:





§ 192.605 Procedural manual for O&M/E

(c) Abnormal Operations

- (1) Responding to, investigating, and correcting the cause of:
 - (i) Unintended closure of valves or shutdowns;
 - (ii) Increase or decrease in pressure or flow rate outside normal operating limits;
 - (iii) Loss of communications;
 - (iv) Operation of any safety device; and
 - (v) Any other foreseeable malfunction of a component, deviation from normal operation, or personnel error, which may result in a hazard to persons or property.





§ 192.605 Procedural manual for O&M/E (c) Abnormal Operations

How do we see the future?

- Past Failures
- DIMP and TIMP Risk Analysis
- NTSB Accident Investigations
- PHMSA and CPUC Investigations
- Advisory Bulletins
- Manufacturer Incident Reports





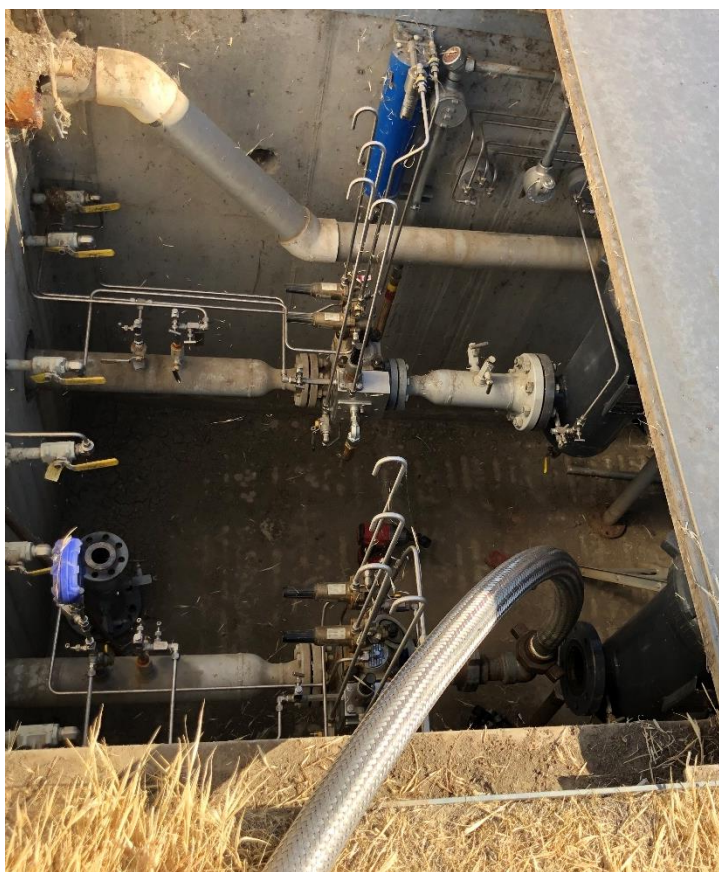
§ 192.605 Procedural manual for O&M/E (c) Abnormal Operations

- 2) Checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation.
- 3) Notifying responsible operator personnel when notice of an abnormal operation is received.
- 4) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.





§ 192.605 Procedural manual for O&M/E (c) Abnormal Operations



5) The requirements of this paragraph (c) do not apply to natural gas distribution operators that are operating transmission lines in connection with their distribution system.





§ 192.605 Procedural manual for O&M/E (d) Safety-Related Condition Reports



Instructions enabling personnel who perform operation and maintenance activities to recognize conditions that potentially may be safety-related conditions that are subject to the reporting requirements of § 191.23 of this subchapter.





§ 192.605 Procedural manual for O&M/E (e) Surveillance, emergency response, and accident investigation.



The procedures required by §§ 192.613(a), 192.615, and 192.617 must be included in the manual required by paragraph (a) of this section.





Record Retention

Life of Facility

- Includes construction, materials, repairs, MAOP information, and most corrosion records
- Retained for active life of facility

Other Records

- Include tests, inspections, patrols, surveys, and procedure reviews which prove compliance with 49 CFR 192
- Retained for at least 5 years





QUESTIONS?





Thank you!
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