

APPENDIX 11E

**Oregon LNG Import Terminal
Operations Manual and Oregon Pipeline
Operations, Maintenance, and
Emergency Procedures Manual**

**Frameworks only. Complete documents will be provided before
construction begins.**



**OREGON LNG IMPORT TERMINAL
OPERATIONS MANUAL
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Oregon Pipeline Operations, Maintenance, and Emergency Procedures Manual

I. General.

Oregon LNG will develop an Operations, Maintenance, and Emergency Procedures Manual for its pipeline system in accordance with 49 CFR 192.605. The manual will include written procedures for conducting normal operations and maintenance activities, including the handling of abnormal operations and emergencies. This manual will be reviewed at intervals not exceeding 15 months, but at least once each calendar year. Appropriate changes will be made as necessary to ensure that the manual is effective. This manual will be prepared before initial operations of a pipeline system begin, and appropriate parts will be kept at locations where operations and maintenance activities are conducted.

II. Maintenance and Normal Operations.

The manual will include procedures for the following to provide safety during maintenance and normal operations:

- (1) Operating, maintaining, and repairing the pipeline in accordance with 49 CFR 192.605 and Subpart M.
- (2) Controlling corrosion.
- (3) Making construction records, maps, and operating history available as necessary for safe operation and maintenance.
- (4) Gathering data needed for reporting accidents in a timely and effective manner in accordance with 49 CFR Part 191.
- (5) Implementing Startup/Shut Down procedures to assure operation is within the MAOP limits.
- (6) Providing compressor station maintenance, including provisions for isolating units or sections of pipe, and for purging before returning to service
- (7) Starting, operating, and shutting down of gas compressor units.
- (8) Conducting periodic review of operations personnel work to determine effectiveness and adequacy of procedures for normal operation, maintenance, and modification of procedures when deficiencies are found.
- (9) Taking adequate precautions in excavated trenches to protect workers from the hazards of unsafe accumulations of vapor or gas.
- (10) Conducting systematic and routine testing and inspection of holders including provision for detecting external corrosion, periodic sampling and testing of gas in storage, periodic inspection and testing of pressure limiting equipment.

III. Abnormal Operation.

The manual will include the following procedures to provide safety when design limits have been exceeded during 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
 - (v) Any other malfunction of a component, deviation from normal operation or personnel error which could cause a hazard to persons or property
- (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.

IV. Safety-Related Condition Reports.

The manual will include instructions for operations and maintenance personnel for recognizing safety-related conditions that are subject to Department of Transportation reporting requirements in accordance with 49 CFR Part 191.23

V. Surveillance.

The Manual will include the following surveillance procedures in accordance with 49 CFR Part 192.613:

- (1) a procedure for continuing surveillance of its facilities to determine and take appropriate action concerning changes in facilities class location, failures, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.

VI. Emergency Response Plans.

At a minimum, the manual will include the following procedures to minimize the hazard resulting from a gas pipeline emergency:

- (1) Receiving, identifying, and classifying notices of events that require immediate response by the operator.
- (2) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.
- (3) Providing prompt and effective response to a notice of each type of emergency, including the following:
 - (i) Gas detected inside or near a building.
 - (ii) Fire located near or directly involving a pipeline facility.
 - (iii) Explosion occurring near or directly involving a pipeline facility.
 - (iv) Natural disaster.
- (4) Specifying the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency.
- (5) Outlining actions directed toward protecting people first and then property.
- (6) Specifying emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.
- (7) Making safe any actual or potential hazard to life or property.

- (8) Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them on planned responses and actual responses during an emergency.
- (9) Safely restoring any service outage.
- (10) Analyzing accidents and failures as required by 49 CFR Part 617, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence.
- (11) As soon after an emergency as possible, beginning action under 49 CFR 192.617 to implement the following procedures:
 - (a) Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures.
 - (b) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.
 - (c) Review employee activities to determine whether the procedures were effectively followed in each emergency.
- (12) Establish and maintain procedures for liaison with appropriate fire, police, and other public officials to:
 - (a) Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;
 - (b) Acquaint the officials with Oregon LNG's ability to respond to a gas pipeline emergency;
 - (c) Identify the types of gas pipeline emergencies of which the Oregon LNG will notify the officials; and
 - (d) Plan how Oregon LNG and officials can engage in mutual assistance to minimize hazards to life or property

VII. Maintenance Procedures.

Oregon LNG's Operations, Maintenance and Emergency Procedures Manual will detail maintenance procedures including the following:

- (1) Patrol program to observe surface conditions on and adjacent to the transmission line right-of-way for indications of leaks, construction activity, and other factors affecting safety and operation.
- (2) Conduct leakage surveys of the transmission line
- (3) Install and maintain pipeline markers
- (4) Keep records in accordance with 49 CFR 192.709
- (5) Establish procedures for transmission line repairs
- (6) Establish procedures for field repair of welds and leaks and testing of repairs
- (7) Identify test requirements for reinstating service lines per 49 CFR 192.725.
- (8) Abandon/deactivate pipelines in accordance with procedures specified in 49 CFR 192.727
- (9) Develop and implement procedures for inspection and testing of relief devices per 49 CFR 192.731
- (10) Develop and implement procedures for storage of combustible materials per 49 CFR 192.735
- (11) Develop and implement procedures for gas detection at compressor stations per 49 CFR 192.736
- (12) Develop and implement procedures for pressure limiting and regulating stations in accordance with 49 CFR 192.739, 192.741, and 192.743
- (13) Develop and implement procedures for prevention of accidental ignition per 49 CFR 192.751