

California Public Utilities Commission



Guidelines for Preparing Operation and Maintenance Plan, Emergency Plan, and Operator Qualification Program for Mobile Home Park Natural Gas Systems

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INTRODUCTION

The purpose of these guidelines is to help the operators of natural gas distribution systems within mobile-home parks (Operator) to establish written plans that are in compliance with the requirements of Title 49, Code of Federal Regulation (Title 49, CFR) Section 192.603: Operation and Maintenance Plan, Section 192.615: Emergency Plan, and Section 192.805: Operator Qualification Program, of the Pipeline Safety Regulations. The numbers appearing in the parenthesis throughout these guidelines represent the applicable code number in the *Pipeline Safety Regulations, Public Utilities Code or General Order 112-F*. For example, the numbers [Title 49, CFR §192.605(a)] refer to the Pipeline Safety Regulations - Title 49 of the Code of Federal Regulations (CFR), Section 192.605(a).

The information contained in this booklet was prepared by the staff of the Gas Safety and Reliability Branch (GSRB) of the California Public Utilities Commission as an aid to operators of small natural gas systems to prepare written Operations and Maintenance Plan, Emergency Plan, and Operator Qualification Program.

This is **not** a complete or definitive outline. Additional information may be required by federal or state regulations. Please refer to Title 49, CFR Parts 190, 191, 192, 193, and 199, Public Utilities Code, and California Public Utilities Commission General Order 112-F for the complete regulations.

This document will be updated as necessary.

Revised in January of 2022

OPERATION AND MAINTENANCE PLAN GUIDELINES

Your Operation and Maintenance Plan should have instructions for employees performing normal operations and making repairs. **Include instructions and record keeping procedures in your Operation and Maintenance Manual for topics A-I described below.**

A. Normal Operations and Repairs

Identify employee(s) who have a working knowledge of the system and identify person(s) responsible for maintaining the system and correcting any unsafe condition. [Title 49, CFR §192.605(a)].

B. Line Markers

NOTE: This section is not applicable to gas systems in most locations. It only applies to systems that have above ground distribution **mains**. **Distribution mains** are pipelines that are a common source of gas supply for an individual customer, or two adjacent or adjoining residential customers. Line markers are **not** necessary for above ground **services**.

A line marker is a warning sign for the public. It must be placed and maintained along each section of a **main** that is located above ground and accessible to the public. The line marker must contain the word “Warning”, “Caution”, or “Danger” followed by the words “Gas pipeline”. Additional specifications for a line marker are listed in Title 49, CFR §192.707.

C. Patrolling

Patrolling is a routine inspection of the gas distribution system. It can be done by walking along the pipeline and observing factors affecting safety of operation (e.g. missing or ineffective meter supports, excessive load on any pipeline component, use of the gas piping for electrical grounding, obstructions in regulator vent, etc.). Any gas distribution system must be patrolled in accordance with Title 49, CFR §192.721. The gas distribution mains in places or structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled at least two times each calendar year, but at intervals not exceeding 7-1/2 months.

D. Leak Surveys

A gas leak survey of the distribution system must be in accordance with Title 49, CFR §192.723. The type and scope of the leakage control program must be determined by the nature of the operations and the local conditions. The gas leak survey must be made by a qualified individual using “leak detector equipment” as frequently as necessary, but at intervals not exceeding 5 years, not to exceed 63 months. The leak survey equipment used must be able to detect possible underground leaks.

NOTE: If leak surveys are performed in lieu of an electrical survey for steel systems without cathodic protection, the interval for gas leak surveys must not exceed 3 years, not to exceed 39 months [Title 49, CFR §192.465(e)].

Annual leak surveys are recommended when any of the following conditions exist:

1. The system is constructed of materials that have a higher tendency to leak. Examples are unprotected bare steel, PVC plastic pipe, and cast iron.
2. The pipeline is over twenty years old and a corrosive soil environment exists.
3. There is an excessive leak history, the causes of which have not been addressed.
4. Portions of the pipeline are located under mobilehomes.

The operator must maintain gas leak survey records related to Title 49, CFR §192.465(e), for the life of the system.

E. Leak Repairs

Provisions must be made for repair of hazardous or potentially hazardous leaks. The operator must maintain all such repair records [Title 49, CFR §192.703]. Leak repair records should include the following information:

1. Probable cause of the gas leak (corrosion, outside force, etc.)
2. Method of repair (replaced pipe, clamped, etc.)
3. Type of materials used in the repair (stainless steel clamp, steel pipe, etc.)
4. The date of the repair and the person who made the repair

F. Abandonment or Discontinued Service Facilities

Abandonment of a pipeline requires it to be cut at the main (1 foot stub), purged if necessary, and capped at both ends. This renders the line non-jurisdictional.

Whenever service to a customer is discontinued, one of the following must be done [Title 49, CFR §192.727(d)]:

1. Lock the valve in closed position.

2. Install a device or fitting in the service line or meter assembly to prevent the flow of gas.
3. Physically disconnect customer piping and seal open ends.

G. Prevention of Accidental Ignition

Provisions must be made to prevent the accidental ignition of gas when a potentially hazardous amount of gas may be released, such as when maintenance is being performed or repairs are made [Title 49, CFR §192.751]. The following provisions should be included:

1. When a hazardous amount of gas is vented, each potential source of ignition must be removed and a fire extinguisher provided.
2. Gas or electric welding or cutting may not be performed on pipe components that contain a combustible mixture of gas and air in the work area.

H. Key Valve Maintenance

A key valve is a valve that can isolate a section of the system or shut down service to the entire system in an emergency situation. The operator must determine the key valve(s) and identify each on the system map. Key valve(s) must be checked and maintained to keep the valve(s) operable at least once each calendar year, but at intervals not exceeding 15 months. Key valve maintenance records must be maintained [Title 49, CFR §192.747].

I. Measuring the Odorization of Gas

The operator must conduct a periodic sampling of the gas to assure the proper concentration of odorant. This may be done by performing a "sniff test" at a location where gas can be safely accessed (e.g. during a meter change-out, at a stove top, etc.) without the danger of gas accumulation or ignition. The test should preferably be performed at a location farthest from the master meter. The frequency of the sampling is to be determined by the operator (Note: GSRB suggests this activity be performed at least every six months). Records must be kept and maintained [Title 49, CFR §192.625].

J. Corrosion Control Monitoring

For metallic pipes, the operator must maintain records or maps to show the location of cathodically protected piping and related facilities [Title 49, CFR §192.491(a)].

(Note: Plastic pipe does not require cathodic protection.)

The cathodic protection system must be tested at least once each calendar year, with intervals not exceeding 15 months, to assure an adequate level of protection. For impressed systems, the rectifier must also be inspected six times annually with intervals not exceeding 2-1/2 months [Title 49, CFR §192.465(a)].

If any part of the pipeline system has buried unprotected metallic pipe installed before August 1, 1971, the operator must evaluate the unprotected pipeline at intervals not exceeding 3 years to determine the necessity of installing cathodic protection. For distribution systems, especially those with pipelines in a common trench with other facilities, electrical surveys are often impractical and can be cost prohibitive. In such cases, operators can use corrosion, leak repair, and/or gas leak survey records to perform the 3-year evaluation of their system [Title 49, CFR §192.465(e)].

Corrosion control monitoring also entails performing the following two items:

1. Examining underground pipe when exposed. Whenever buried pipe is exposed, the operator must examine the exposed portion for evidence of corrosion. A record of this examination must be maintained [Title 49, CFR §192.459].
2. Checking for atmospheric corrosion on aboveground pipe. **All aboveground pipes must be inspected for atmospheric corrosion once every three years.** A record of this examination and corrective work must be maintained [Title 49, CFR §192.481].

The operator must keep records of each test, survey, or inspection, in sufficient detail to demonstrate adequacy of protection [Title 49, CFR §192.491].

K. Inspection of Regulating Stations

If a propane distribution system has one or more regulating station(s) that lower or control the gas pressure to the distribution main(s), the operations and maintenance plan must include provisions for their inspection and testing. The regulators and relief devices must be inspected once a year not to exceed 15 months [Title 49, CFR §192.739 and §192.743].

The pressure regulating station must be inspected to determine that they are:

- In good mechanical condition;
- Adequate in capacity and reliability of operation;
- Set to function at the correct pressure;
- Properly installed and protected from vehicular traffic, dirt, liquids, icing, and other conditions that might prevent proper operation

Relief Valves (if applicable)

The operations and maintenance plan must include procedures for the inspection of relief devices. The operator must ensure that the relief devices have sufficient capacity to protect the facilities to which they are connected. This can be done by testing the relief device(s) in place or by review and calculations [Title 49, CFR §192.743].

Every year, the operator must verify that there had been no changes to upstream regulators, such as different pressure, orifice, or type of regulator. If there had been no changes, the operator only needs to review and initial the capacity calculation. If a change is made, the new relief valve capacity calculations must be made and kept on file.

NOTE: ONLY RELIEF VALVES INSTALLED ON DISTRIBUTION MAINS ARE SUBJECT TO REQUIREMENTS OF SECTION K. THESE REQUIREMENTS DO NOT APPLY TO INTERNAL RELIEF VALVES ON SERVICE REGULATORS.

Anyone performing inspections related to Title 49, CFR §§ 192.739 and 192.743 must be operator qualified; therefore, the operator should seek technical assistance from qualified individuals (e.g. contractors) in order to comply with this requirement especially if regulator disassembly or station re-design is necessary. Any documentation provided by manufacturer(s) related to each type of regulator used on the system must be retained as long the equipment is in use.

THE OPERATOR IS CAUTIONED NOT TO OPERATE, MAINTAIN, OR DISASSEMBLE REGULATORS OR RELIEF VALVES WITHOUT BEING TRAINED ON SUCH EQUIPMENT BY THE REGULATOR MANUFACTURER OR A QUALIFIED INDEPENDENT CONSULTANT.

A record of this annual inspection must be kept. A sample form is provided below.

REGULATOR INSPECTION REPORT

Name of MHP or Entity: _____

Location of Regulating Station: _____

Regulator Information

Make: _____ Type: _____

Size: _____ Orifice Size: _____

Pressure Rating: Inlet: _____ Outlet: _____

M.A.O.P. of System to which it is connected: _____

Operating Pressure: Inlet: _____ Outlet: _____

Lock Up Pressure: _____

Monitoring Regulator or Relief Setting: _____

Was the Regulator Stroked (to fully open)? Yes No

General Condition of the Station

Atmospheric Corrosion: Yes No

Support Piping Rigid: Yes No

Station Guards: Yes No

Area Clean of Weeds and Grass: Yes No

Capacity at Inlet and Outlet pressure: _____

Corrections Made: _____

Remarks: _____

Inspector: _____

Signature: _____ Date: _____

Record Keeping Requirements

Below is a list of items for which records must be maintained:

Maintenance Item:	Maximum Maintenance Interval:
1. Leak survey	Once every 5 years ¹
2. Patrolling	Two times a year
3. Key valve maintenance	Once a year
4. Odorant check	"Periodic" ²
5. Cathodic protection (CP) system evaluation (pipe to soil potential)	Once a year
6. CP rectifier voltage and amperage readings (for impressed systems only)	Six times a year
7. Leak repair reports (for underground leaks)	As necessary
8. Examination of exposed buried pipe	As necessary
9. Atmospheric corrosion	Once every three years
10. Regulating station inspection and testing	Once a year
11. O&M plan review	Once a year

¹ Note: For non-cathodically protected steel pipelines the interval is once every 3 years if a leak survey is used in lieu of an electrical survey. If, however, one of the following conditions exist the **recommended** interval is once every year:

- a. The system is constructed of materials which have a tendency to leak, such as unprotected bare steel, PVC, and cast iron.
- b. The pipeline is over twenty years old and a corrosive soil environment exists.
- c. There is an excessive leak history, and the causes of which have not been addressed.
- d. Portions of the pipeline are located under mobilehomes.

² The operator must determine the interval at which odorant checks will be performed. This interval should be stated in the O&M plan. (Note: GSRB highly suggests it is prudent to perform this activity at least every six months).

Sample Maintenance Schedule

YEAR:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Leak Survey												
Patrolling												
Key Valve Maintenance												
Odorant Check												
Cathodic Protection (CP) Evaluation												
CP – Rectifier Readings												
Atmospheric Corrosion												
Regulating Station inspection and testing												
O&M and Emergency Plan Review												

NOTE: Clear cells indicate month maintenance is due. Write the date and personnel's initials on the appropriate cells when maintenance is performed.

EMERGENCY PLAN GUIDELINES

The operator's written emergency plan must contain, at a minimum, the following items [Title 49, CFR §192.615]:

A. Emergency Notification List

The telephone number of the pipeline operator, fire department, local serving gas utility (i.e., SoCalGas, PG&E, etc.), and anyone else whose service may be necessary in an emergency must be posted in a public area within the mobilehome park [Public Utilities Code 4361(a)]. A sample *Emergency Notification List* is included within these guidelines.

For better coordination of emergency procedures, it is recommended that you instruct all residents to notify the operator immediately in the event of an emergency (earthquake, fire, or gas leak), even if they have called an emergency service.

B. Map of the Gas Distribution System

A map of the gas pipeline, including the location of the tank(s), gas main(s), service line(s), regulator(s), and key valve(s) must be included in the Emergency Plan [Public Utilities Code §4454.5(a)(1)]. Cathodic protection facilities may also be indicated on the map.

C. Emergency Equipment

Proper equipment, in particular wrench(es) or valve key(s) of sufficient size to operate key valve(s), must be readily available in the event of an emergency. The equipment and its location must be specified [Title 49, CFR §192.615(a)(4)].

D. Emergency Response Procedures

At a minimum, written procedures for prompt and effective response to the following emergencies must be provided [Title 49, CFR §192.615(a)(3)]:

1. Potentially hazardous gas leaks
2. Possible Natural Disasters such as earthquakes, floods, wildfires, etc...
(Note: Provide procedures only for disasters that are applicable to your system.)
3. Fires

It is **suggested** that the operator have an evacuation plan that addresses the following items:

1. A safe evacuation location identified on a map, with evacuation routes clearly shown.
2. The method of informing residents in the event of an evacuation and methods of securing their homes for various types of disasters.
3. Residents with special needs or limited mobility are identified and are accounted for in the evacuation procedure.
4. A method of verifying that all residents have secured and evacuated their homes is provided.

E. Incident Reporting Procedures

Should a reportable incident occur, an operator must report the incident, at the earliest practical moment but no longer than 2 hours within normal working hours and 4 hours outside of normal working hours, to the U.S. Department of Transportation (800) 424-8802, and to the California Public Utilities Commission via their website <https://ia.cpuc.ca.gov/safetyservices/>. Alternatively, the operator can report an incident to the CPUC via telephone to (800) 235-1076. A reportable incident is an event involving **release of gas from a pipeline and any of the following**:

1. Death
2. Injury requiring in-patient hospitalization
3. Estimated property damage of \$50,000¹ or more, or
4. Media attention

The following events are also reportable, **even without** a release of gas:

5. Gas pressure exceeding the maximum allowed operating pressure (MAOP) of the pipeline caused by the failure of a pressure regulating device, or any other unplanned event
6. Any under pressure condition in which the pipeline loses service or must be shut down due to the failure of a pressure control device, or any other planned event

Any event that is significant in the judgment of the operator, even though it may not meet the aforementioned criteria, may be reported [Title 49, CFR §§ 191.3, 191.5, and GO1 12-F § 122.2].

F. Restoration of Gas Service

Should gas service to resident(s) need to be restored due to an outage or disruption, qualified person(s) must follow the proper procedures to restore the service. A relighting procedure and qualified person(s) must be specified [Title 49, CFR § 192.615(a)(9)]. It is suggested that the operator check with the local utility to determine what services they assist with and their associated costs.

G. Training

Appropriate personnel must be trained to assure that they know the emergency procedures outlined in the emergency plan [Title 49, CFR § 192.615(b)(2)]. Maintain training records.

H. Public Awareness Program

Each operator of a master-meter gas system must develop and implement a written procedure to provide its customers, and persons controlling any property, on which the system is located, which is not controlled by the operator, with a Public Awareness Message (PAM) twice annually (every

¹ “\$50,000 in damage is the minimum requirement for a CPUC report. U.S. Department of Transportation requires a report for Estimated property damage of \$122,000 or more

six months). The operator shall maintain records indicating how, when, and to whom the PAM was distributed. The public awareness message must include [Title 49, CFR § 192.616(j)]:

- (1) A description of the purpose and reliability of the pipeline;
- (2) An overview of the hazards of the pipeline and prevention measures used;
- (3) Information about damage prevention;
- (4) How to recognize and respond to a leak; and
- (5) How to get additional information.

Examples of Public Awareness Messages are provided below. Please note that the examples are merely a guideline. It is the pipeline operator's responsibility to ensure that all requirements are properly addressed in the PAM.

PUBLIC AWARENESS MESSAGE EXAMPLES

1. A description of the purpose and reliability of the pipeline

Requirement	Example
Describe the purpose of the propane pipeline system.	<p>The propane pipeline system in the “Name of Entity” is owned, operated and maintained by the owner of the property. The pipeline system is designed to distribute propane to the customers, which is commonly used for heating and cooking.</p> <p>Note: If there are public facilities such as a pool, laundry room, or business on the property, the PAM should also identify these and other facilities that utilize the propane pipeline system.</p>
Describe the reliability of the propane pipeline.	<p>The propane pipeline system is operated and maintained in accordance with the owners Operations and Maintenance Plan, which contains procedures for safely operating, maintaining, and monitoring the system. The California Public Utilities Commission inspects the propane pipeline system for compliance with the Federal rules and regulations.</p>

2. An overview of the hazards of the pipeline and prevention measures used

Requirement	Example
Describe the hazards associated with the pipeline.	<p>Propane can leak from pipeline facilities damaged due to corrosion, outside force, natural events, or equipment failure, etc. Because propane is a flammable commodity, propane leaks, under certain circumstances, have the potential to cause harm.</p>
Describe preventive measures used.	<p>The propane system is leak surveyed annually. All hazardous leaks are repaired. All main valves are inspected to ensure that they are operable. The propane system is patrolled on a routine basis to ensure that hazardous conditions such as atmospheric corrosion, improper care of discontinued services and customer lines, inadequate support of meters and pipeline components, etc., are noted and corrected.</p> <p>Note: If the propane pipeline system is cathodically protected, briefly explain that the system has a cathodic protection system that protects the pipeline from corroding and that the system is monitored on a routine basis to ensure its effectiveness.</p>

3. Information about damage prevention

Requirement	Example
Describe how the pipeline can be damaged.	<p>The propane pipeline system is susceptible to damage due to outside forces such as those caused by excavation, vehicular traffic, or excessive loads placed on meter set assemblies. In addition, restricted access to main valves and meter set assemblies could result in severe consequences in the event of an emergency.</p>
Describe measures to prevent damage	<p>The greatest risk to underground propane pipelines is damage caused during excavation. Even a minor impact with the pipeline could cause a dent or damage to its coating, resulting in a leak. Notify the property owner/manager before you dig. Do not park vehicles near propane meters or pipelines that are not protected by barriers. Do not remove meter supports or place heavy items on top of meter set assemblies. Do not restrict access to main valve or meter set assemblies.</p>

	Note: Request residents to inform the owner/manager of propane meters that are vulnerable to vehicular damage or need supports. Residents should also notify the owner/manager of other potential hazards they notice.
4. How to recognize and respond to a leak	
Requirement	Example
List ways to recognize gas leaks	<p><u>Odor</u>: Propane is colorless, odorless, tasteless and non-toxic. An additive (Mercaptan) in the propane gives it a distinctive odor (similar to rotting eggs or sulfur).</p> <p><u>Vegetation</u>: Propane leaking from an underground pipeline can destroy vegetation by starving the roots of air and water. An unusual dry patch of vegetation, within an otherwise green area, could indicate a below ground propane leak.</p> <p><u>Sound</u>: A blowing or hissing sound could indicate the presence of a propane leak.</p> <p><u>Fungus-like growth</u>: Propane leaks in valve boxes, manholes, etc., may develop a fungus-like growth that is generally white in color.</p>
Describe how to respond to a gas leak	<p>Do not light items such as matches or cigarettes, or use any device that may generate a spark such as electrical switches, telephones (cell and land line phones), doorbells, automobiles or other engines, etc. Extinguish all flames, evacuate the building to a safe distance, and turn off propane if feasible. To report a propane leak, call (Emergency Phone Number) and inform appropriate qualified personnel of the situation and the location of the leak. Do not make the phone call from the area where the propane leak is present.</p> <p>For propane emergencies, an emergency telephone number should be provided where the appropriate qualified personnel can be reached 24 hours a day.</p>
5. How to get additional information	
Requirement	Example
Provide the phone number of the owner or manager, and other potential resources to learn more about propane safety.	For additional information, contact the owner/manager. Also, visit the websites of the U. S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (http://www.phmsa.dot.gov) or the California Public Utilities Commission (http://www.cpuc.ca.gov/puc/).

I. Accident Investigation

Each operator needs procedures for an investigation of all accidents and failures for the purpose of determining the cause of the failure and minimizing the possibility of reoccurrence [Title 49, CFR §192.617].

EMERGENCY NOTIFICATION LIST

Name of Entity or Mobilehome Park: _____

Manager _____ Telephone _____

Asst. Manager _____ Telephone _____

Emergency Numbers

Fire Department _____

Police/Sheriff Department _____

Ambulance _____

Propane Supplier _____

Electric Company _____

Phone Company _____

Incident Reporting:

California Public Utilities Commission

(800) 235-1076

U.S. Department of Transportation

(800) 424-8802

Nearest fire alarm box _____

Nearest Public Telephone _____

Nearest Hospital:

Address _____

Phone _____



**CALIFORNIA PUBLIC UTILITIES COMMISSION
GAS SAFETY AND RELIABILITY BRANCH**

**GAS INCIDENT REPORTING PROCEDURE FOR
JURISDICTIONAL MOBILEHOME PARK GAS SYSTEMS**

Pursuant to General Order No. 112-F, any operator of a master-metered natural gas distribution system located within a mobilehome park is required to give notice of certain incidents to the federal government as well as to the California Public Utilities Commission (CPUC).

At the earliest practicable moment, **day or night**, following discovery of any of the incidents listed below, a report of the incident must be made to the U.S. Department of Transportation at **1-800-424-8802**, and to the CPUC via the website <https://ia.cpuc.ca.gov/safetyevents/>. Alternatively, the operator can report an incident to the CPUC via telephone to **(800) 235-1076**. If, when calling the CPUC, there is no response, leave a message on the recorder.

Incidents requiring a report.

1. An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in a death, or personal injury necessitating in-patient hospitalization.
2. An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in estimated property damage of \$50,000² or more, excluding cost of gas lost
3. An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in unintentional estimated gas loss of three million cubic feet or more
4. Incidents which have either attracted public attention or have been given significant news media coverage, that are suspected to involve natural gas and/or propane (LPG) gas, which occur in the vicinity of the Operator's facilities; regardless of whether or not the Operator's facilities are involved.
5. Incidents where the failure of a pressure relieving and limiting stations, or any other unplanned event, results in pipeline system pressure exceeding its established Maximum Allowable Operating Pressure (MAOP) plus the allowable build up set forth in Title 49, CFR § 192.201.
6. Incidents in which an under-pressure condition, caused by the failure of any pressure controlling device, or any other unplanned event other than excavation related damage, results in any part of the gas pipeline system losing service or being shut-down.

Information that must be provided when reporting an incident.

1. Names of operator and person making the report along with telephone numbers.
2. The location of the incident.

² “\$50,000 in damage is the minimum requirement for a CPUC report. U.S. Department of Transportation requires a report for Estimated property damage of \$122,000 or more

3. The time of the incident.
4. The number of fatalities and personal injuries, if any.
5. A description of the incident including all significant facts that are known by the operator to bear relevance to the cause of the incident and extent of the damages.

NOTE: Failure to provide a notice of an incident, in accordance with General Order No. 112-F, may subject the owner /operator to regulatory action and for penalties.

OPERATOR QUALIFICATION PROGRAM GUIDELINES

Title 49, CFR Part 192 Subpart N- Qualification of Pipeline Personnel became effective on October 26, 1999. It requires pipeline operators to develop and maintain a written qualification program for individuals performing covered tasks on pipeline facilities. The intent of this qualification rule is to ensure a qualified work force and to reduce the probability and consequences of incidents caused by human error.

What it requires

The regulations require that you prepare and follow a **written** OQ program that, at a minimum, includes the following eight provisions:

1. Identify covered tasks (operation and maintenance activities affecting the integrity of the pipeline and required by the safety code);

“**Covered tasks**” are those tasks performed on the pipeline that meet the four-part test specified on Title 49, CFR §192.801(b). Covered tasks include items such as:

- Leakage survey - Use of proper techniques and equipment.
- Regulator station maintenance
- Patrolling and surveillance procedures.
- Cathodic protection monitoring or maintenance (Note: The corrosion control procedures required by §192.605(b)(2), including those for the design, installation, operation, and maintenance of cathodic protection systems, must be carried out by, or under the direction of, a person qualified in pipeline corrosion control methods.)
- Odorant level testing.
- Valve testing and maintenance.
- Pipeline mapping/locating techniques.
- Responding to unsafe conditions and using the Emergency Plan
- Preparing the Operation & Maintenance plan or Operator Qualification criterion
- Meter change-out and/or service regulator work

2. Evaluate individuals performing covered tasks to prove that they are qualified. This includes the operators own employees as well as any employees working for a contractor, who perform a covered task on the operator’s system;

Evaluating means testing a person through written tests, oral exams, observing employees while performing the task on the job, in a classroom, or simulated setting, or any other documented method that can prove the individual possesses the necessary knowledge, skills and abilities to perform the covered task and recognize and react to “Abnormal Operating Conditions (AOCs) (Note: Observation of on-the-job performance may not be used as the sole method of evaluation).

An operator may review and accept a contractor’s OQ Program for evaluating the contractor’s employees performing any task which is a covered task within the operator’s OQ Program. However, the review of the contractor OQ Program must be performed **before** the contractor’s

employee begins the task. Records confirming the qualification(s) of the contractor employee(s) must also be obtained and reviewed by the operator **before** the particular employee(s) begin(s) the covered task on the operator's system.

“Abnormal operating condition (AOC)” means a condition that may indicate a malfunction of a component or deviation from normal operations that may:

- a. Indicate a condition exceeding design limits; or
- b. Result in a hazard(s) to persons, property, or the environment.

For example, a leaking gas pipe is a malfunction of the pipe (it is not supposed to leak) and can result in a hazard to persons and property.

3. Allow individuals who are not qualified to perform a covered task if directed and observed by an individual who is qualified;

The written OQ program must spell out the conditions under which individuals who have not met the qualifications to perform a covered task may perform task under direct observation and supervision of a qualified individual. Supervising from a remote location is NOT acceptable.

4. Evaluate an individual if there is reason to believe that the individual's performance of a covered task contributed to an incident;

The written OQ program must specify that the operator will re-evaluate individuals whose performance of a covered task may have contributed to an accident. Additionally, the OQ program must specify the process used to re-evaluate the individual.

5. Evaluate an individual if there is reason to believe that the individual is no longer qualified to perform a covered task;

The written OQ program must include provisions on how to re-evaluate individuals for whom there are some reasons to believe that they are no longer qualified to perform a covered task. The plan should also include some guidance for supervisors to recognize and react to behavior that would trigger these provisions. These could include observation of individuals not following procedures or those with injury/illness that reduces motor skills.

6. Communicate changes that affect covered tasks to individuals performing those covered tasks;

The OQ program must specify how changes to plans, policies, procedures, regulations, or equipment are communicated to individuals performing covered tasks.

7. Establish re-evaluation intervals;

Individuals performing covered tasks must be periodically re-evaluated. Re-evaluation intervals should be based on factors such as:

- How frequently is the covered task performed? More frequent performance may justify longer re-evaluation intervals;
- How complex is the covered task? More complex tasks may require shorter reevaluation intervals; and

- What might the consequences be if the task is performed improperly? What is the worst that could happen if the covered task is not performed correctly, with “catastrophe” justifying shorter re-evaluation intervals and “nothing” justifying longer intervals?

Re-evaluation intervals must be clearly identified in the OQ program. Re-evaluation method(s) need not be the same as the initial qualification.

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 reevaluations, etc.).

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

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

What types of records are required

An operator must maintain records to prove that the written OQ program is being followed. For each individual who performs a covered task on your system, an operator must be able to produce a record of the date the individual passed each evaluation required for each covered task the individual performs, the tasks for which the individual is qualified and the method used to qualify the individual. Records of re-evaluations for cause, post incident and when required by re-evaluation intervals must also be maintained.

How to get more information

A guideline for preparing an Operator Qualification Program for smaller distribution systems is available on the Department of Transportation website:

<https://www.phmsa.dot.gov/training/pipeline/small-natural-gas-operator-oq-guide-january-2017-pdf>

The Gas Safety and Reliability Branch will continue to include Operator Qualification requirements in its workshops held in conjunction with the U.S. Department of Transportation. If you have questions, you may contact the Gas Safety and Reliability Branch by mail at:

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Attention: GSRB - Gas Safety Program

