

## **Summary of Pipeline Regulations**

**Pipeline and Hazardous Materials Safety Administration (Federal)**

**California Public Utilities Commission (State)**

*Regulations Pertinent to PG&E for San Francisco Accident*

### **1. Applicable Federal Regulations**

#### **i State Partner Relationship**

State pipeline safety programs and agencies, including the California Public Utilities Commission (CPUC), enforce federal regulations on intrastate<sup>1</sup> natural gas pipelines through a relationship with the Pipeline and Hazardous Materials Safety Administration (PHMSA) known as a state partnership. These state partners also enforce state regulations, which cannot be less stringent than federal regulations.

The National Association of Pipeline Safety Representatives (NAPSR), the national non-profit association representing state pipeline personnel in the United States, states the following regarding the role of state partners and the interplay between federal and state regulations<sup>2</sup>:

State pipeline safety programs ensure safety and give the public confidence that the pipeline system is safe and reliable. State pipeline inspectors are the “first line of defense” at the community level to enforce pipeline safety, enact underground utility damage prevention programs, and promote public awareness campaigns regarding pipeline safety.

Most States have adopted and enforce more stringent regulations than the federal pipeline safety regulations. NAPSR members employ a wide range of compliance

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<sup>1</sup> An intrastate pipeline is a pipeline which is fully contained within the boundaries of a state. This definition includes all distribution pipelines; thus, the main involved in this incident is under the jurisdiction of the CPUC.

<sup>2</sup> <http://www.napsr.org/about-napsr.html>

methods as part of their regulatory oversight, including: corrective action orders, civil penalties, and rate-of-return control which ensures that the operating company and its shareholders, not consumers, bear the cost of improving the safety of pipeline systems.

**ii Title 49 CFR Part 191**

Four specific sections of Title 49 CFR Part 191 apply to PG&E in this case: 191.3, 191.5, 191.7, and 191.9. 191.3 provides basic definitions, including the definition for what qualifies as an incident. 191.5 outlines when an incident must be reported to the National Response Center (NRC) and what information must be provided. 191.7 lays the basis for how an incident report is to be submitted to PHMSA. 191.9 outlines the specific submission requirements for incidents which occur on distribution pipelines. All four sections are included in a separate document for reference as noted in the appendix.

As of the date of this publication, the CPUC has not issued any citations of Title 49 CFR Part 191 to PG&E for this incident. Please see the appendix for the initial notification to the NRC by PG&E and the subsequent 48-update to the NRC by PG&E submitted per the requirements of section 191.5. Please see the appendix for the most recent PHMSA Form F 7100.1 (Incident Report – Gas Distribution System) submitted by PG&E per the requirements of sections 191.7 and 191.9.

**iii Title 49 CFR Part 192**

Eight subparts of Title 49 CFR Part 192 apply to PG&E in this case: B (Materials), C (Pipe Design), F(Joining of Materials Other than by Welding), G (General Construction Requirements for Transmission Lines and Mains), J (Test Requirements), L (Operations), M (Maintenance), and N (Qualification of Pipeline Personnel).

Within Subpart B, four sections are applicable to the materials used for repair: 192.53,

192.59, 192.63, and 192.67. 192.53 covers general material requirements, and 192.59 describes specific requirements for plastic pipe. 192.63 outlines how pipeline materials are to be marked, and 192.67 covers how plastic pipe and components need to be stored to prevent degradation.

Within Subpart C, one section is applicable to the pipe used during the repair: 192.121. 192.121 outlines the design requirements necessary for the portions of plastic pipe used to repair the damaged pipeline segment.

Within Subpart F, four sections are applicable to the joins made during the repair: 192.273, 192.283, 192.285 and 192.287. 192.273 outlines basic requirements for all joints. 192.283 describes the specific requirements a fusion/joining procedure must meet. 192.285 outlines which individuals may perform these joins. 192.287 covers the inspection of joints after they are made.

Within Subpart G, seven sections are applicable to the repair of the damaged mains: 192.303, 192.305, 192.307, 192.311, 192.321, 192.325, and 192.327. 192.303 requires that construction of mains be done in compliance with all of subpart G. 192.305 and 192.307 state that mains must be inspected to ensure proper construction and lack of damage, respectively. 192.311 covers when repairs are necessary. 192.321 describes how plastic pipe is to be installed. 192.325 discusses minimum clearance between the pipeline and other underground structures, and 192.327 outlines the required depth-of-cover.

Within Subpart J, four sections are applicable to the pressure-test post-repair of the pipeline: 192.503, 192.513, 192.515, and 192.517. 192.503 outlines the basic requirements of any pressure test, and 192.513 outlines the specific requirements that apply only to plastic pipelines. 192.515 covers the performance standards to ensure no negative safety or environmental consequences are observed, and 192.517 describes the necessary records to be

kept of the test and the length of their retention.

Within Subpart L, six sections are applicable to the emergency response portion of this case: 192.603, 192.605, 192.615, 192.617, 192.629, and 192.631. 192.603 requires records of compliance with 192.605, which is a detailed requirement outlining the sections necessary for an operator's operations and maintenance manual. 192.615 covers requirements of an operator's emergency plan to minimize hazards in the course of an emergency and who should be furnished with this plan. 192.617 sets the requirement for operators to investigate any failures that occur on their system for failure cause and to minimize recurrence. 192.629 discusses the proper method of pipeline purging. 192.631 is an extensive listing of all aspects of control room management, including roles and responsibilities, fatigue mitigation, and training.

Within Subpart L, two sections are applicable to the damage prevention portion of this case: 192.614 and 192.616. 192.614 covers the aspects of a damage prevention program an operator should have. This includes participation in a one-call center and providing locate and mark services to excavators that notify the operator of any planned excavation work in the region of their facilities. 192.616 outlines all of the requirements of a public awareness program, which all operators are required to have. This includes education and outreach on topics such as one-call centers, actions to take in the event of a gas release, and procedures for reporting natural gas releases, and distribution should include the public and individuals engaged in excavation.

Within Subpart L, three sections are applicable to the normal operations portion of this case: 192.619, 192.621, and 192.625. 192.619 details how to determine the maximum allowable operating pressure (MAOP) of steel and plastic pipelines based on design and hydrostatic testing. 192.621 sets the MAOP specifically for high-pressure distribution mains, including the two mains involved in this case, at a maximum of 60 psig. 192.625 discusses the base odorization

requirements for natural gas pipelines.

Within Subpart M, two sections are applicable to the emergency response: 192.747 and 192.756. 192.747 outlines the required frequency of service checks to valves on distribution systems. 192.756 requires that equipment used for fusions be maintained and calibrated properly.

Within Subpart N, all five sections are applicable to the personnel and their actions during the emergency response, repair, and restart. 192.801 defines covered tasks. 192.803 defines various terms used in Subpart N. 192.805 lists the specific requirements of an operator qualification program. 192.807 describes the required recordkeeping procedures, and 192.809 outlines the various dates of implementation of certain sections.

As of the date of this publication, the CPUC has not issued any citations of Title 49 CFR Part 192 to PG&E for this incident. Because the number of applicable sections of Title 49 CFR Part 192 are extensive, all those referenced in this section are included in a separate document for reference as noted in the appendix.

## **2. Applicable State Regulations**

### **i Enforcement Agency**

As discussed in Section 1.i, the CPUC is responsible for enforcement of state and federal regulations on intrastate natural gas pipelines located within the state of California. In addition to this, the CPUC also regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, along with authorizing video franchises.

The California Public Utilities Commission outlines the entities they regulate within the realm of pipeline safety as outlined below<sup>3</sup>:

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<sup>3</sup> <https://www.cpuc.ca.gov/aboutus/>

The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

**ii General Order No. 58-A - Standards for Gas Service in the State of California**

One section of General Order 58-A applies to the emergency response portion of this case: 22(a). 22(a) states the following:

22. Maintenance and Operation of Facilities

a. Each gas utility, unless specifically relieved in any case by the Commission from such obligation, shall operate and maintain in safe, efficient and proper condition all of the facilities and instrumentalities used in connection with the furnishing, regulation, measurement and delivery of gas to any customer up to and including the point of delivery, which point, for the purpose of these rules, shall be deemed to be the outlet fitting of the meter installed by the utility, or the point where the pipe owned and installed by the utility connects to the customer owned piping, whichever is further downstream.

The California Public Utilities Commission (CPUC) has not issued any citations of General Order 58-A as of the date of this publication.

**iii General Order No. 112-F - State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems**

Three subparts of General Order 112-F apply to the emergency response portion of this case: A (General), B (Reports), and C (Construction and Safety Standards). Additionally, Appendix B (Report of Gas Leak or Interruption) is applicable.

Within Subpart A, sections 101 (Preamble) and 105 (Definitions) have portions that apply to the emergency response. In Section 101, 101.2 states that the state regulations are supplemental to the federal regulations, and 101.4 discusses record requirements. Section 105 defines various important terms, including covered tasks and public attention.

Within Subpart B, section 122 (Gas Incident Reports) and 123 (Annual Reports) are applicable. 122.1 and 122.2 outline the specific requirements for when an incident is to be reported to the CPUC and what information is to be included. 123.1, 123.2, and 123.3 outline all of the information necessary for filing in the annual report, including information on excavation damage and its prevention.

Within Subpart C, section 141 (General), 142 (Plastic Pipe), 143 (Distribution and Transmission Systems) and 144 (Test Requirements for Pipelines to Operate Below 100 psig) have applicable parts. 141.1 states that the rules in this subpart are supplementary to federal regulation. 142.1 describes how plastic pipe is to be stored to prevent degradation. 143.3 concerns how valves are to be maintained, 143.4 outlines operator qualification requirements, and 143.6 requires operators to use ICS that is compatible with those of emergency responders such as fire and police departments. 144.2 discusses how plastic pipelines that operate under 100 psig are to be pressure-tested.

Appendix B is CPUC File No. 420, the Report of Gas Leak or Interruption Form. This form is submitted to comply with Subpart B, section 122 (Gas Incident Reports).

As of the date of this publication, the California Public Utilities Commission (CPUC) has

not issued any citations of General Order 112-F to PG&E for this incident. Because the number of applicable sections of General Order 112-F are extensive, all those referenced in this section are included in a separate document for reference as noted in the appendix.

**iv California Public Utilities Code - Division 1. Part 1. Chapter 4.5 Gas Pipeline Safety**

This legislation, also referred to as the Natural Gas Pipeline Safety Act of 2011 and written by the California State Legislature, contains 2 applicable articles to the emergency response portion of this case.

Article 1 (General) defines various relevant terms through part 950, including which natural gas pipelines and facilities are regulated by the CPUC.

Article 2 (Natural Gas Pipeline Safety Act of 2011) contains 5 parts relevant to the emergency response portion of this incident and the resulting investigation. Part 955 outlines the authority of the CPUC to regulate and enforce compliance of natural gas operators within the state of California, including intrastate distribution lines. Part 956 required the CPUC to create standards for emergency response and require operator compliance with those standards. Part 956.5 requires that operators of intrastate distribution and transmission pipelines meet with local fire departments at least once each calendar year. Part 960 outlines how the State of California will respond to recommendations from the National Transportation Safety Board to the CPUC or operators within the state of California. Part 961 requires that each operator create and implement a gas safety plan that includes minimizing hazards, timely response to leaks and other hazards, and safe construction, operation and maintenance of pipelines.

As of the date of this publication, the California Public Utilities Commission (CPUC) has not issued any citations of the Natural Gas Pipeline Safety Act of 2011 to PG&E for this

incident. Because the number of applicable sections of the Natural Gas Pipeline Safety Act of 2011 are extensive, all those referenced in this section are included in a separate document for reference as noted in the appendix.

## **Appendix**

Referenced Excerpts from Title 49 Subtitle B Chapter I Subchapter D 191

Referenced Excerpts from Title 49 Subtitle B Chapter I Subchapter D 192

National Response Center Report #1237005

National Response Center Report #1237131

PHMSA F7100.1 Report #20190024-31741

Referenced Excerpts from CPUC General Order 112-F

Referenced Excerpts from Natural Gas Pipeline Safety Act of 2011