

## PUBLIC UTILITIES COMMISSION

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October 20, 2014

Mr. Sumeet Singh, Vice President  
Pacific Gas and Electric Company  
Gas Asset and Risk Management  
6111 Bollinger Canyon Road, Office #4590-D  
San Ramon, CA 94583

GA2014-01

SUBJECT: General Order 112-E audit of PG&E's Operations and Maintenance Plans

Dear Mr. Singh:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Terence Eng, Alula Gebremedhin, Alin Podoreanu, Sikandar Khatri, Quang Pham, and Joel Tran conducted a General Order 112-E audit of Pacific Gas and Electric Company's (PG&E) Operations and Maintenance Plans from February 24 through 28, March 3, and March 5.

A Summary of Inspection Findings (Summary), which contains probable violations and areas of concern and recommendations identified by SED staff, is included as an attachment to this letter.

Please provide a written response indicating the measures taken by PG&E to address the probable violations and areas of concern and recommendations within 30 days from the date of this letter. SED will notify PG&E of the enforcement actions it plans to take in regards to each of the violations found during the audit, pursuant to Commission Resolution ALJ-274, after it has an opportunity to review PG&E's response to the findings included in the Summary.

If you have any questions, please contact Terence Eng at (415) 703-5326 or by email at [terence.eng@cpuc.ca.gov](mailto:terence.eng@cpuc.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Kenneth A. Bruno".

Kenneth Bruno  
Program Manager  
Gas Safety and Reliability Branch  
Safety and Enforcement Division

Enclosure: Summary of Inspection Findings

cc: Larry Berg, PG&E Gas Regulatory Support  
Larry Deniston, PG&E Gas Regulatory Support  
Dennis Lee, SED  
Aimee Cauquiran, SED  
Terence Eng, SED

## SUMMARY OF INSPECTION FINDINGS

### A. Probable Violations

1. Title 49 CFR §192.13(c) states:

*“Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.”*

1.1 Title 49 CFR §191.7(d) states:

*“If electronic reporting imposes an undue burden and hardship, an operator may submit a written request for an alternative reporting method to the Information Resources Manager, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, PHP-20, 1200 New Jersey Avenue, SE, Washington DC 20590. The request must describe the undue burden and hardship. PHMSA will review the request and may authorize, in writing, an alternative reporting method. An authorization will state the period for which it is valid, which may be indefinite. An operator must contact PHMSA at 202-366-8075, or electronically to [informationresourcesmanager@dot.gov](mailto:informationresourcesmanager@dot.gov) or make arrangements for submitting a report that is due after a request for alternative reporting is submitted but before an authorization or denial is received.”*

PG&E procedure TD-4413P-01, p.6, states:

*“b. If the incident is DOT reportable, then within 30 days of the incident, fill out the appropriate DOT Form (either PHMSA F- 7100.1, “Incident Report – Gas Distribution,” PHMSA F- 7100.2, “Incident Report – Gas Transmission and Gathering Systems” or PHMSA F- 7100.3, “Incident Report – Liquefied Natural Gas (LNG)”) on the DOT Office of Pipeline Safety website. (Note: **If necessary, such forms may be filled out off-line and emailed or faxed to the DOT. (emphasis added)**) Email a copy to the CPUC at [Michael.robertson@cpuc.ca.gov](mailto:Michael.robertson@cpuc.ca.gov) and [USRB@cpuc.ca.gov](mailto:USRB@cpuc.ca.gov) along with the letter and form described in Section 6 below.”*

PG&E’s procedure TD-4413P-01 does not adequately address the requirements of §191.7(d) because it does not include the requirement to obtain approval from PHMSA before an alternate reporting method (e.g. email, fax) can be used, or to contact PHMSA to make arrangements for submitting a report.

1.2 Title 49 CFR §192.14(a)(4) states:

*“The pipeline must be tested in accordance with Subpart J of this part to substantiate the maximum allowable operating pressure permitted by Subpart L of this part.”*

PG&E could not provide SED its procedure to address the requirements of §192.14(a)(4) which requires testing of pipelines converted to service.

1.3 Title 49 CFR §192.383(b) states:

*“(b) Installation required. An excess flow valve (EFV) installation must comply with the performance standards in §192.381. The operator must install an EFV on any new or replaced service line serving a single-family residence after February 12, 2010, unless one or more of the following conditions is present:*

- (1) The service line does not operate at a pressure of 10 psig or greater throughout the year;*
- (2) The operator has prior experience with contaminants in the gas stream that could interfere with the EFV's operation or cause loss of service to a residence;*
- (3) An EFV could interfere with necessary operation or maintenance activities, such as blowing liquids from the line; or*
- (4) An EFV meeting performance standards in §192.381 is not commercially available to the operator.”*

PG&E’s standard A-93.3, p.2, states:

*“4. EFVs are not required on services that are replaced in an emergency or on a short lead-time basis. Service replacements to repair Grade 1 leaks are included in this category. Service replacements to repair Grade 2+ and Grade 2 leaks that are not part of an engineered main replacement job are included in this category...”*

PG&E’s standard A-93.3 does not adequately address the requirements of §192.383(b); Emergency replacements and replacements due to leaks are not exempt from the requirement of installing an EFV.

1.4 Title 49 CFR §192.455 states:

*“(a) Except as provided in paragraphs (b), (c), and (f) of this section, each buried or submerged pipeline installed after July 31, 1971, must be protected against external corrosion...”*

...

*(c) An operator need not comply with paragraph (a) of this section, if the operator can demonstrate by tests, investigation, or experience that—*

...

*(2) For a temporary pipeline with an operating period of service not to exceed 5 years beyond installation, corrosion during the 5-year period of service of the pipeline will not be detrimental to public safety.”*

PG&E could not provide SED its procedure to address the cathodic protection requirements for temporary installation under §192.455(c)(2).

1.5 Title 49 CFR §192.465(c) states:

*“Each reverse current switch, each diode, and each interference bond whose failure would jeopardize structure protection must be electrically checked for proper performance six times each calendar year, but with intervals not exceeding 2½ months. Each other interference bond must be checked at least once each calendar year, but with intervals not exceeding 15 months.”*

PG&E could not provide SED its procedure to address the requirements for monitoring reverse current switches, diodes, and interference bonds under §192.465(c).

1.6 Title 49 CFR §192.465(e) states:

*“After the initial evaluation required by §§ 192.455(b) and (c) and 192.457(b), each operator must, not less than every 3 years at intervals not exceeding 39 months, reevaluate its unprotected pipelines and cathodically protect them in accordance with this subpart in areas in which active corrosion is found. The operator must determine the areas of active corrosion by electrical survey. However, on distribution lines and where an electrical survey is impractical on transmission lines, areas of active corrosion may be determined by other means that include review and analysis of leak repair and inspection records, corrosion monitoring records, exposed pipe inspection records, and the pipeline environment.”*

PG&E could not provide SED its procedure to address the requirements of §192.465(e) for evaluating unprotected pipelines.

1.7 Title 49 CFR §192.467(f) states:

*“Where a pipeline is located in close proximity to electrical transmission tower footings, ground cables or counterpoise, or in other areas where fault currents or unusual risk of lightning may be anticipated, it must be provided with protection against damage due to fault currents or lightning, and protective measures must also be taken at insulating devices.”*

PG&E’s procedure TD-4182P-01, intended to address the requirements of §192.467(f), does not address the requirements of protective measures to address the risk associated with fault currents and lightning.

1.8 Title 49 CFR §192.469 states:

*“Each pipeline under cathodic protection required by this subpart must have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection.”*

PG&E’s standard O-16, p.4, states:

*“For new transmission pipeline construction, install an ETS station every 2,500’ (Type A installation as shown in Numbered Document O-10)...”*

PG&E's standard O-10, p.1, states:

*"Install test leads on new facilities as follows (refer to Figure 2):  
Type A: Transmission: At 1-mile intervals, to provide electrical access."*

PG&E's standards do not adequately address the requirements of §192.469 because the standards appear to be in disagreement. O-16 requires an ETS station every 2500 feet while O-10 requires one every 1 mile (5280 feet).

1.9 Title 49 CFR §192.481(b) states:

*"During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water."*

PG&E's procedures O-16, TD-4412P-07, and Gas Pipeline Patrol Operations Manual do not adequately address the requirements of §192.481(b) because the procedures do not indicate the requirement or the method on how to give particular attention under thermal insulation, in splash zones, and at deck penetrations.

1.10 Title 49 CFR §192.503 states:

*"(b) The test medium must be liquid, air, natural gas, or inert gas that is-*  
*(1) Compatible with the material of which the pipeline is constructed;*  
*(2) Relatively free of sedimentary materials; and,*  
*(3) Except for natural gas, nonflammable."*

Table A-1 of PG&E's standard A-34 states that "Gas" may be used as a test medium for strength testing. On Page 2 of A-34, "Gas" is defined as natural gas, flammable gas, or gas which is toxic or corrosive. However, PG&E must clarify that flammable gases other than natural gas cannot be used as a test medium. In addition, PG&E should consider prohibiting the use of corrosive gas and toxic gas as test mediums; the former may not be compatible with steel pipe and appurtenances, while the latter may pose a public safety threat.

2. Title 49 CFR §192.603(b) states:

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

PG&E procedure TD-4001P-02\_Attachment\_1, Table 2 outlines the priority-based actions for updating and publishing a document revision. However, PG&E may implement a procedure months or years after a revision. PG&E must clearly state in its procedures and communicate with its personnel the effective date of the published, revised documents.

3. Title 49 CFR §192.605 states:

3.1 *“(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.”*

3.1.1 PG&E currently reviews Code of Safe Practices (CSP) Section 14 – Gas Compressor Stations, which contains operations and maintenance procedures, every 5 years. PG&E does not adequately address the requirements of §192.605(a) because it must review and update the section annually at intervals not to exceed 15 months.

3.1.2 PG&E currently reviews CSP Section 15 – Gas Services, which contains operations and maintenance procedures, every 5 years. PG&E does not adequately address the requirements of §192.605(a) because it must review and update the section annually at intervals not to exceed 15 months.

3.2 Title 49 CFR §192.707 states:

*“(d) Marker Warning: The following must be written legibly on a background of sharply contrasting color on each line marker:*

...

*(2) The name of the operator and the telephone number (including area code) where the operator can be reached at all times”*

Page 1 of PG&E’s standards L-10, L-11.1, & L-12 states:

*“Presently installed pipeline markers and their corresponding decals do not need to be altered to meet the specifications outlined in this document or other referenced documents.”*

PG&E standards do not adequately address the requirements of §192.707 because the standards do not require for an update of marker decals upon knowledge that they contain incorrect (i.e. outdated) information.

3.3 Title 49 CFR §192.717 states:

*“Each permanent field repair of a leak on a transmission line must be made by—  
(a) Removing the leak by cutting out and replacing a cylindrical piece of pipe; or  
(b) Repairing the leak by one of the following methods*

...

*(4) If the leak is on a submerged offshore pipeline or submerged pipeline in inland navigable waters, mechanically apply a full encirclement split sleeve of appropriate design.”*

PG&E could not provide SED its procedure to address the requirements of §192.717(b)(4) for the permanent repair of a leak on a submerged transmission pipeline.

3.4 Title 49 CFR §192.735(b) states:

*“Above ground oil or gasoline storage tanks must be protected in accordance with National Fire Protection Association Standard No. 30.”*

PG&E could not provide SED its procedure to address the requirements of §192.735(b) for the protection of above ground oil or gasoline storage tanks.

3.5 Title 49 CFR §192.751 states:

*“Each operator shall take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion, including the following:*

*(a) When hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.”*

Page 2 of PG&E’s Procedures for Purging Gas Facilities, A-38 states:

*“...Valved vertical vent stacks should be used to keep the natural gas out of the work area and to blow it in a safe direction.”*

PG&E’s procedure A-38 does not adequately address the requirements of §192.751 because the procedure does not address the need to provide fire extinguishers during purging.

3.6 Title 49 CFR §192.753 states:

3.6.1 *“(a) Each cast iron caulked bell and spigot joint that is subject to pressures of more than 25 psi (172kPa) gage must be sealed with*

*(1) A mechanical leak clamp; or*

*(2) A material or device which:*

*(i) Does not reduce the flexibility of the joint;*

*(ii) Permanently bonds, either chemically or mechanically, or both, with the bell and spigot metal surfaces or adjacent pipe metal surfaces; and,*

*(iii) Seals and bonds in a manner that meets the strength, environmental, and chemical compatibility requirements of §§ 192.53(a) and (b) and 192.143...”*

PG&E's standard A-39, p.2 states:

*“All cast iron caulked bell and spigot joints subjected to 25 psig or more must be sealed by means other than caulking. Suitable methods include mechanical bell joint leak-clamps. Refer to 49CFR 192.753(a) and Gas Standards B-50, B-51, and B-51.1...”*

PG&E's standards B-50, B-51, and B-51.1 have not been active since 2008. Therefore, PG&E's standards do not adequately address the requirements of §192.753(a) because the standards do not contain appropriate sealing procedures.

- 3.6.2 *“(b) Each cast iron caulked bell and spigot joint that is subject to pressures of 25 psi (172kPa) gage or less and is exposed for any reason must be sealed by a means other than caulking.”*

PG&E's standard A-39, p.2 states:

*“For cast iron mains operating at a pressure of less than 25 psig, each bell and spigot joint exposed by the Company (or exposed by an outside party with the Company's knowledge) must be sealed by means other than caulking. These methods of sealing include, as appropriate, mechanical bell joint leak clamps (B-51.1), internal seals (B-52.1), Avonseal I (25 psig) (B-57), Avonseal II (1 psig) (B-58), heat shrink sleeves (1 psig) (B-56), or other methods approved by the GD&TS department. Refer to 49CFR 192.753(b).”*

PG&E's standards B-51.1, B-56, B-57, and B-58 have not been active since 2008. Therefore, PG&E's standards do not adequately address the requirements of §192.753(b) because the standards do not contain appropriate sealing procedures.

4. General Order (GO) 112-E, Section 122.2 states:

*“(a) Each operator shall report incidents to the CPUC that meet the following criteria:*

*...*

*(2) “Incidents which have either attracted public attention or have been given significant news media coverage, that are suspected to involve natural gas, which occur in the vicinity of the operator's facilities; regardless of whether or not the operator's facilities are involved.”*

PG&E procedure TD-4413P-01, section 1.2 states:

*“1. All events that meet any of the following criteria are considered reportable gas incidents and must be reported to the CPUC...*

*...*

*b. Events that have attracted coverage by major news media (“major news media” are defined as Bay Area, Sacramento, and/or national network TV news stations), and include the release of gas from a Company facility.”*



PG&E's procedure TD-4413P-01 does not adequately address GO 112-E Section 122.2, because it does not indicate that events that have attracted media coverage must be reported if suspected to involve natural gas, which occur in the vicinity of the operator's facilities, regardless of whether or not the operator's facilities are involved (i.e. a release of gas is not necessary).

## B. Areas of Concern / Recommendations

1. PG&E should consider explicitly defining acronyms VT, MT/PT, and RT listed in Table 2 of PG&E procedure TD-4160P-20.
2. PG&E currently reviews and updates the introduction to TD-4133M Gas Transmission and Distribution Manual Corrosion Control Volume every 5 years. PG&E should consider reviewing and updating the introduction to TD-4133M annually since it outlines staff roles and responsibilities pertaining to operations and maintenance procedures.
3. PG&E standard D-S0353 / S4112, p.2 states, *“The exposed portion of any buried metallic piping must be examined for external corrosion, if it is bare or if the coating is deteriorated.”* PG&E should consider updating its standard to address possible corrective actions taken when exposed portions of buried pipe (e.g. as a result of washouts, erosion) are identified and examined. The procedure should also require documenting the corrective actions.
4. PG&E procedure TD-4540P-01, p.16 states:

*“IF sulfur is present on station internal components,  
THEN perform the following tasks.*

1. *Write presence of sulfur on back of proper maintenance record.*
2. *Notify senior gas quality engineer.”*

PG&E should consider updating procedure TD-4540P-01 to include how it plans to physically address the presence of sulfur when discovered on its internal components.

5. PG&E procedure TD-4540S, p.3 states:

*“Class C Inspection (internal inspection)*

*An internal inspection of station components after station construction or reconstruction. Station components in the flowing gas stream are checked internally for presence of weld slag and shavings. Filter elements and rubber goods are replaced only for cause.”*

On page 4 of TD-4540S, Table 2 states that Class C inspections are not required at farm tap regulator sets, large volume customer regulator sets (HPR-type), and district regulator stations (HPR-type).

Since all types of regulators could potentially have slugs and shavings after construction or reconstruction, PG&E should consider updating its procedure to include a requirement for performing Class C inspections at the aforementioned sets and stations where feasible.

6. Page 1 (Notes) of PG&E forms FH-70-A, FH-70-B, and FH-70-C states:

*“All pressure relief devices shall be inspected, tested, and the capacity reviewed at intervals not exceeding 15 months, but at least once each calendar year. Furthermore, in addition to the annual capacity testing, the capacity of the relief devices shall be verified immediately when changes are made which could affect the ability of the relief device to protect the connected systems.”*

For consistent interpretation throughout the system, PG&E should consider updating its procedures to include a list of examples of the most common changes that require immediate relief valve capacity verification.

7. PG&E standard H-70 is applicable for both transmission and distribution systems; however, Table 1 is titled “Distribution Systems”. PG&E should consider revising the title of Table 1 to include transmission systems.
8. During a discussion regarding the use of cheater bars for valve maintenance, PG&E stated that cheater bars are not allowed to be used. However, PG&E procedure TD-4430P-04 (Appendix E) does not disallow the use of cheater bars; it only lists the acceptable maximum wrench length. SED has witnessed the use of cheater bars during field inspections; therefore, PG&E should consider updating its procedure to explicitly prohibit staff from using cheater bars.
9. PG&E Standard A-39, p.2 states:

*“10) Whenever a cast iron pipeline is exposed for any reason, it must be inspected for evidence of graphitization. Graphitization occurs when the iron corrodes, leaving only graphite. The pipe appears intact, but is soft and can be easily cut with a knife or other sharp instrument.”*

PG&E should consider updating standard A-39 and related procedures to provide guidance on how to identify graphitization; specifically, adding procedures for staff to objectively identify graphitization.

10. SED discovered several PG&E procedures containing outdated references. Based on the priority matrix in TD-4001P-02\_Attachment\_1, it would appear that many low priority procedures may not be updated until much later (even when only simple changes to outdated references are needed). PG&E should consider performing simple changes to outdated references immediately. Several examples are listed below:
  - A. PG&E has not incorporated Bulletin 280, published on 07/13/09, into Vault Inspection Standard S4446.
  - B. PG&E has not incorporated the bulletins for TD-4430P-02 [322 (published 02/2010), 325 (06/2010), TD-4430B-002 (03/2011)] into TD-4430P-02.
  - C. PG&E’s standard A-36 makes references to General Order 112-D which has since been supplanted by 112-E, and Engineering Standard 90 which PG&E could not provide to SED during the audit.
11. PG&E’s continuing surveillance procedure TD-4800S identifies all of the various programs that cover operations and maintenance tasks as part of the continuing surveillance program. TD-4800S currently states, “Appropriate company personnel review and analyze facility records periodically”. PG&E expressed during the audit that PG&E’s Integrity Management (IM) group has oversight on the continuing surveillance program, but procedure TD-4800S does not reflect this information. PG&E should consider updating procedure TD-4800S to

clearly define the “appropriate company personnel” who have oversight of the surveillance program and the frequency of its review.

12. PG&E indicated that it has a system-wide program for handling suspected contacted casings. PG&E should update its procedures to include the details and responsibilities of the program.
13. Page 14 of PG&E’s standard A-34 states, “*For fabricated units or short sections that will have an MAOP at or above 30% SMYS, the pre-installation test shall be a minimum of 4 hours.*” PG&E should consider updating its procedure with a prescribed length defining “short sections” of pipe to ensure consistency throughout its system.
14. PG&E’s informational job aids TD-4151M-JA33 and JA46 detail the inspection and leak testing process of drilling machines used for tapping transmission pipelines. This testing is accomplished by using compressed air to pressurize the tapping machine body to ensure the integrity of the drilling machine which might hold transmission line pressures during hot tapping. PG&E should consider updating its procedures to establish a recommended interval for the inspection and leak testing process of drilling machines.
15. Title 49 CFR §192.735(a) states:

*“Flammable or combustible materials in quantities beyond those required for everyday use, or other than those normally used in compressor buildings, must be stored a safe distance from the compressor building.”*

PG&E procedure TD-4430P-02, p.5 states:

*“Store supplies of flammable or combustible materials not required for everyday use or other than those normally used in compressor buildings a safe distance from compressor buildings.”*

To ensure consistency throughout its system, PG&E should consider updating its procedure to specify a length of separation to define “safe distance”.

16. PG&E standard A-38, section (1)(c) refers to “Section 192.727 of General Order 112”. General Order 112 does not contain a Section 192.727. PG&E may be referring to Title 49 CFR Part 192, and should edit standard A-38 accordingly.
17. SED would like to know if PG&E allows for the installation of aluminum pipe as per §192.455(e). If so, please provide a reference to the procedure.
18. SED would like to know if PG&E has exemptions under §192.479(c) from protecting aboveground pipe from atmospheric corrosion. If so, please provide a reference to the procedure that describes how PG&E determines if the exemption applies. In addition, to ensure consistency throughout its system, PG&E should consider updating its procedures to include how to address unpainted pipe upon discovery in the field.
19. PG&E’s procedure TD-4430P-02, p.15 states:

*“A main gas relief is considered to be operating properly when the following conditions exist:*

...

- *The relief shuts off completely at the prescribed “reseat” pressure.”*

SED would like to know how PG&E verifies reseat or reseal at the prescribed pressure settings, and where the results are documented.

20. TD-4430P-02 p.7, 4.1.2 states:

***“2) Pneumatic Piston Actuators:***

*“Stroke the valve and check for smooth operation annually. Record the open-to-closed and closed-to-open travel time.”*

The inspection form for this activity (TD-4430P-02-F03) does not have a space/field to record either the acceptable or actual travel times. PG&E should consider specifying the acceptable travel time for the actuator type listed.

21. SED would like to know if PG&E has exceptions to odorizing gas as per §192.625(b). If so, please provide a reference to the procedure that describes how PG&E determines if the exemptions apply.

22. Title 49 CFR §192.739 states:

*“(a) Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is—*

...

*(3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a);”*

PG&E’s bulletin, TD-4430B-002 (page 1) states:

***“Alternate Monitor Testing (MUST USE THIS METHOD)***

*Lower the monitor set point until the monitor takes over control and observe the monitor controllability. After satisfactorily controlling pressure through the monitor valve, return the monitor set point to the original setting. Then check the monitor set point by simulating a pneumatic signal to the controller sensing line. Ensure that the appropriate set points are reestablished.”*

PG&E bulletin TD-4430B-002 requires testing the monitor’s functionality at a setting *below* its normal operating set point. SED would like further explanation on how PG&E can conclude that this test meets the requirements of §192.739(a)(3).

23. PG&E procedure TD-4125S, p. 4 states:

*“For distribution systems operating at MAOP of 60 psig or less, if there is no pressure record available to document the operating pressure of a system during the 5 years prior to July 1, 1970, establish the MAOP alternatively by the documented pressure of the system*

*during the most recent leak survey made in the period between July 1, 1970 and March 1, 1979. The leak survey must demonstrate the system to be safe while operating at the documented pressure (meaning the documented pressure at time of survey or before and after survey). If a leak survey was made but there is no record of the pressure at the time of survey (or before and after the survey), establish the MAOP as the pressure of record, if knowledgeable personnel can certify that the pressure at the time of the survey was the same as the pressure of record. The next leak survey must verify MAOPs established in this manner.”*

Please provide information on PG&E’s basis for establishing MAOP using documented operating pressure of the system during the most recent leak survey conducted between July 1, 1970 and March 1, 1979. In addition, please provide the number of miles of distribution pipeline in which PG&E has established its MAOP in accordance with the aforementioned section of PG&E procedure TD-4125S.