

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Order Instituting Rulemaking to Adopt
Rules and Procedures Governing
Commission-Regulated Natural Gas
Pipelines and Facilities to Reduce Natural
Gas Leakage Consistent with
Senate Bill 1371.

Rulemaking 15-01-008
(Filed January 15, 2015)

**COMMENTS OF THE OFFICE OF RATEPAYER ADVOCATES
ON THE SAFETY AND ENFORCEMENT DIVISION STAFF REPORT
SURVEY OF NATURAL GAS LEAKAGE ABATEMENT BEST PRACTICES**

LAURA TUDISCO

Attorney for
The Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-2164
E-Mail: laura.tudisco@cpuc.ca.gov

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I. INTRODUCTION

On January 22, 2015, the Commission issued an Order Instituting Rulemaking (OIR or Rulemaking), (R.) 15-01-008, "...to carry out the intent of Senate Bill (SB) 1371..."¹ As described in the OIR, SB 1371 "...requires the adoption of rules and procedures to minimize natural gas leakage from Commission -regulated natural gas pipelines consistent with Public Utilities Code Section 961 (d), §192.703(c) of subpart M of Title 49 of the Code of Federal Regulation, the Commission's General Order 112-E, and the state's goal of reducing Greenhouse Gas (GHG) emissions."²

On March 17, 2015, the Commission's Safety and Enforcement Division (SED) issued a Staff Report entitled "Survey of Natural Gas Leakage Abatement Best Practices."³ This Staff Report was attached to an Administrative Law Judge's Ruling Entering Staff Report into Record and Seeking Comments" (ALJ Ruling). According to that ALJ Ruling, "[c]omments of not more than 20 pages in response to this ruling and the Staff Report may be filed and served no later than April 1, 2015."⁴

The ALJ Ruling was issued March 18, 2015. Pursuant to that ALJ Ruling, the Office of Ratepayer Advocates ("ORA") submits these Comments.

ORA has the statutory obligation to represent, and advocate, on behalf of the interests of ratepayers under the Commission's jurisdiction with the goal of obtaining the lowest possible rate for service consistent with reliable and safe service levels.⁵ To this end, ORA has consistently supported and advocated for policies, rules and programs promoting safety by treating the goal of safety as integral to any cost-effectiveness and rate case analysis.⁶

¹ OIR, p. 1.

² OIR, p. 1.

³ See attachment to March 18, 2015, Administrative Law Judge's Ruling Entering Staff Report into Record and Seeking Comments, ("SED Report").

⁴ ALJ Ruling, p. 5.

⁵ Public Utilities Code § 309.5 (a).

⁶ For example, ORA is an active participant in this gas pipeline rulemaking, the GO 112-E Rulemaking, and the three San Bruno-related investigations.

Rulemaking 15-01-008 requires the Commission-regulated natural gas pipeline and facility operators named as respondents in the OIR to file a report by May 15, 2015, regarding their natural gas leaks and leak management practices. ORA does not yet have that information.

Without information from the respondents about their actual leaks and practices, ORA's Comments on the SED Report are necessarily limited. In these Comments, ORA provides no assessment on timeframes or volumes of leaks and their applicability to any revisions to leak grades, but reserves the right to seek to submit additional comments on the issues later.

ORA opposes the Commission adoption of the new definitions of leaks set forth in the SED Report. ORA recommends that all parties be provided the opportunity to participate in a thoughtful process to consider and comment on the proper definition of leaks in the context of this Rulemaking. The Commission should carefully review the comments of all parties and develop a definition of leaks that is based on a record of factual and legal analysis.

These Comments on the SED Report contain some preliminary observations, recommendations, and conclusions regarding some of the technologies and practices SED describes as presently in use around the globe, technologies and practices which are new and / or currently in use in California, and those which are in various stages of research and development (R&D). ORA also references Pipeline and Hazardous Materials Safety Administration (PHMSA) guidance documents.⁷ While these documents are aimed towards small gas companies, the concepts are equally applicable to large gas companies.

II. DISCUSSION

A. Background

The Safety and Enforcement Division Staff Report, "Survey of Natural Gas Leakage Abatement Best Practices," was prepared in "partial fulfillment of SB 1371 and

⁷ ORA refers to these documents as PHMSA Guidance Manuals; they are available at the following link: <http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=a7c6ca170a574110VgnVCM1000009ed07898RCRD&vgnnextchannel=67027e2cd44d3110VgnVCM1000009ed07898RCRD&vgnnextfmt=print#page5>.

this Rulemaking.”⁸ SB 1371 adds Article 3 (commencing with Section 975) to Chapter 4.5 of Part 1 of Division 1 of the Public Utilities Code. Section 975 states, in part:

Not later than January 15, 2015, the commission, in consultation with the Air Resources Board, shall commence a proceeding to adopt rules and procedures for those commission-regulated facilities that are intrastate transmission and distribution lines....⁹

Section 975 (e) (3) also provides that the rules and procedures the Commission adopts shall:

Establish and require the use of best practices for leak surveys, patrols, leak survey technology, leak prevention, and leak reduction. The commission shall consider in the development of best practices, the quality of materials and equipment.¹⁰

Pursuant to Public Utilities Code § 975(c),¹¹ the Commission has required respondents to this OIR to file a report including the following information by May 15, 2015:

1. A description and general location of each gas corporation’s gas pipeline facilities, including its intrastate transmission and distribution lines.
2. A summary of its current leak management practices.
3. A list of new methane leaks in 2013 by grade and in 2014 by grade.
4. A list of open leaks that are being monitored or are scheduled to be repaired. If the open leak is only being monitored, provide the reason why the leak has not been scheduled to be repaired.

⁸ SED Report, Title Page.

⁹ Public Utilities Code §975 (d).

¹⁰ Public Utilities Code §975 (e)(4).

¹¹ Public Utilities Code § 975(c) provides that “gas corporations” are required to file the report. Since the term gas corporation is defined in Public Utilities Code § 222 to mean “every corporation or person owning, controlling, operating, or managing any gas plant for compensation within this state,” and because “gas plant” is defined in Public Utilities Code § 221 to include “all real estate, fixtures, and personal property, owned, controlled, operated, or managed in connection with or to facilitate the production, generation, transmission, delivery, underground storage, or furnishing of gas ... for light, heat, or power,” all of the above-named respondents are required to file this report.

5. The total number of leaks detected and repaired in 2013 and 2014, and the time it took to repair those leaks once they were discovered.
6. A best estimate of gas loss due to leaks (list estimated gas loss by month for 2013 and 2014), and an explanation of how the estimates were derived.¹²

These reports may provide useful information as to what kind of information gathering needs to be undertaken by the Commission before considering what rules and procedures should be adopted. Given that neither ORA nor other parties has yet to see these reports, and given the possibility that additional information may be provided in the anticipated SED workshop, ORA cannot, at this time, provide solid recommendations or analysis for many of the issues raised in this rulemaking or the SED Report.¹³

ORA recommends that at least part of the SED workshop retain the purpose indicated in the OIR, chiefly the development of consistency amongst utility reports when they are filed.

ORA recommends that the respondents further specify the amount of Lost and Unaccounted for Gas (LUAF) that is actually lost, since LUAF is not truly a measure of natural gas escaping into the atmosphere, but is an accounting mechanism for ratemaking purposes. PHMSA states “the term, ‘unaccounted-for gas,’ does not always indicate a leak. Leakage is only one of a number of factors contributing to unaccounted-for gas. There are 17 or more conditions that may contribute to unaccounted-for gas.”¹⁴

As set forth in Public Utilities Code § 975(e), the rules and procedures to be adopted should, among other things, be technologically feasible, cost effective, and use best practices. ORA agrees with the SED Report that some of the technologies are still in Research and Development (R&D) and are not commercially available yet. Since these

¹² Public Utilities Code §975(c).

¹³ The OIR for R.15-01-008 anticipated two phases to this proceeding. The first was the filing of the utility reports in May 2015, after a SED workshop “to discuss the format, and to ensure consistency with the data reported to the [ARB] and [PHMSA].” The second was to “solicit input from the utilities and other interested persons on what rules and procedures should be adopted by this Commission.” (R.15-01-008 at pp. 9-10).

¹⁴ PHMSA Guidance Manual Chapter 5, p. V-1.

technologies are not commercially available, they may not meet the test to demonstrate cost-effectiveness or the “quality of the materials and equipment.”¹⁵

The SED Report is correct that there is no one single “best practice” standard for leak detection. Furthermore, § 975(e) (5) anticipates that protocols and procedures will use metrics “to quantify the volume of emissions from leaking gas pipeline facilities, and for evaluating and tracking leaks geographically and over time, that may be incorporated into the plans required by § 961, or into other state emissions tracking systems, or both, including the regulations for the reporting of greenhouse gases of the State Air Resources Board.” Since the utilities have yet to respond to the questions raised in the rulemaking, there is no record in this proceeding of what practices, best or otherwise, that the utilities may be following.

B. Defining “Leaks” in the Context of Senate Bill 1371

The SED Report defines a leak under the purported new paradigm established by SB 1371. SED notes that its new definition of leak is NOT in agreement with the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) definition of leak.¹⁶

In its new definition, the SED Report asserts that methane emitted during the course of purging, normal operations or maintenance and testing are also considered leaks.¹⁷ ORA disagrees. While these may be considered emissions for purposes of reducing methane emissions from gas utilities, these are not leaks in the gas system and are outside the scope of SB 1371.

The SED Report provides no legal or comprehensive factual basis for its new definition of leaks, or its “examples of leaking components” such as “... defective gaskets, seals, valve packing, etc.” Before adopting the SED Report’s new definitions, the Commission should obtain input, through this Rulemaking, from the utilities and other interested parties in the case, before adopting any new definition of leaks. Without

¹⁵ Public Utilities Code §§ 975(b) and (e), and 977(d).

¹⁶ SED Report, p. 7.

¹⁷ SED Report, p. 7.

this input, or data from the utilities, the Commission is not meeting the requirements established in §§ 975 and 977 regarding cost consideration, maximizing cost-effectiveness and leak reductions, the goals of reducing methane emissions, or the requirements under § 961, specifically the requirement under part (d)(1) which requires the safety plans to “identify and minimize hazards and systemic risks in order to minimize accidents, explosions, fires, and dangerous conditions, and protect the public and gas corporation workforce.”¹⁸ As proposed, the new leak definitions may divert resources away from addressing leaks that could lead to explosions, fires, and dangerous conditions towards leaks that otherwise would cause little to no harm to the public or the gas corporation workforce.

C. Leak Grading and Repair Timelines

The SED Report includes a summary of the “...current practices of leak grading and repair timelines since any changes made to optimize methane will need to fit into this existing structure.”¹⁹ According to the SED Report, California gas utilities currently use the following leak grading and repair timelines (with slight deviations between companies):²⁰

Grade 1 Gas Leaks:

A Grade 1 gas leak, also referred to as a “hazardous leak,” represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until conditions are no longer hazardous.

Grade 2 Gas Leaks:

A Grade 2 leak is non-hazardous to persons or property at the time of detection but still requires a scheduled repair because it presents a probable future hazard. Grade 2 leaks must be repaired within 15 months. These leaks are usually monitored at set intervals to ensure that they do not get worse or become hazardous before they are scheduled for repair. If they become hazardous, they are upgraded to Grade 1 and should be immediately repaired.

¹⁸ Public Utilities Code § 961(d)(1).

¹⁹ SED Report, p. 12.

²⁰ SED Report, p. 12.

Grade 3 Gas Leaks:

A Grade 3 leak is non-hazardous at the time of detection and can reasonably be expected to remain non-hazardous. These leaks are monitored to ensure that they do not get worse or become hazardous. If they get worse or become hazardous, they are upgraded to Grade 2 or Grade 1.²¹

ORA recommends that Grade 3 be retained and applied to leaks that are “hazardous to the environment,” but not to “people or property” and have some schedule for their repair. If the Commission seeks the repair of Grade 3 leaks, then an appropriate schedule for their repair should be developed, after the utilities have provided their reports in May and a subsequent record can be developed in this proceeding.

ORA agrees that with the SED Report that, for utilities with large service areas, it may not be practical or cost effective to repair small leaks²² immediately and that there should be flexibility on timing. ORA’s proposed changes are consistent with the requirement of Public Utilities Code § 975. SB 1371 states:

With priority given to safety, reliability and affordability of service.”²³ Consistent with the goal of achieving clarity, SED needs to work with parties to develop a clear distinction of how leaks that change from lower (e.g. 3 to 2) categories will be re-categorized and what a feasible timeline for repair will be in manner that is cost effective and efficient while ensuring that the intents of SB 1371 is achieved. This will be consistent with ORA’s view that the Commission should achieve an effective balance between potential ratepayer costs and public safety concerns.²⁴

Without retaining Grade 3 leaks, ORA is concerned that the proposed new definitions would not meet the requirement to give priority to safety, reliability, and affordability of service. ORA cannot recommend the volume or timing of repairs at this time since the utility reports will not be available until May 15, 2015.

²¹ SED Report, p. 12.

²² SED Report, p. 14.

²³ See SB 1371, Section 2: 975 (b).

²⁴ See DRA Comments in R.11-02-019, April 13, 2011, p. 6.

D. The ICF International Report

The SED Report refers extensively to a March 2014 report prepared by ICF International (ICF Report) on behalf of the Environmental Defense Fund. The ICF Report, in turn, references a report of the U.S. Environmental Protection Agency (EPA) entitled “Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2011.”

According to the ICF Report, fugitive emissions are the largest emission source category overall. Vented emissions from pneumatic controllers and pumps are also significant as is vented associated gas from oil well completions and production. Venting from wet seal centrifugal compressors is also a large source. However, the ICF study was a national study, and without data specific to California. Without more information, it is premature to base a decision on best practices in California solely on the ICF Report.

Even though California has fewer compressor stations compared to oil and gas producing states, California has a larger amount of distribution pipeline at approximately 200,000 miles. The SED Report concludes that approximations not based on California specific data would mean approximately 74% of the 2007 Greenhouse Gas (GHG) emissions from leaks would be from pipelines.²⁵

E. Integrity of cost/benefit analysis for each type of leak

There is no one single “best practice” standard for leak detection – the context of the operator, business situation, geographic location, and cost, are all variables.²⁶ Furthermore, given that there is no California-specific data available yet since the utility reports have not yet been filed, it is impossible to conduct any cost/benefit analysis.

F. Assessment of challenges associated with implementing best practices

ORA agrees with SED that there are no best practices for leak detection. SED’s Report refers to one “promising” technology used today by Pacific Gas & Electric (PG&E) that is from the Picarro Corporation. The technical name for the Picarro technology is “Cavity Ring- Down Spectroscopy.” According to its supporters, this

²⁵ SED Report, p. 11.

²⁶ As the SED Report notes, the costs of some of the technologies it refers to are unknown. (See SED Report, p. 16, fn. 15).

technology can detect methane concentrations as low as 1 part per billion (ppb), which is 1,000 times more sensitive than many traditional gas detection instruments. The SED Report, based on information provided by PG&E, says that the Picarro technology allows PG&E to detect gas leaks from 600 feet away, and that the technology in practice has enabled PG&E to find more leaks in a shorter amount of time.²⁷

The Commission should carefully examine the proposals for best practices in leak detection. In keeping with SB 1371, the Commission should require that any change in utility practices be documented and clearly explained. This inquiry is best handled through each utility's rate case.²⁸

G. Comments on Staff Recommendations

- 1. Financial incentives**
- 2. Evaluate O&M, repair practices**
- 3. Expand scope of assessments**
- 4. Invest in leak detection**
- 6. Capital improvement programs**

For each of these items, ORA recommends they be handled in the respective rate cases of each utility. ORA is unable to provide meaningful comment on these topics without the utility reports. ORA questions the statement in the SED Report that “[g]as distribution utilities have no financial incentive to eliminate traditionally non-hazardous leaks,”²⁹ and may address this assumption further after it has an opportunity to review the utility reports expected to be filed May 15, 2015.

5. Training programs

The SED Report states that training programs for operator safety and the proper use of technologies and devices should include the following elements:

- Scheduled training for all operators;
- Qualification testing to ensure that operators are able to
 - operate the equipment properly and safely,

²⁷ SED Report, p. 15.

²⁸ ORA considers PG&E's Gas Transmission and Storage cases in the same context as General Rate Cases.

²⁹ SED Report, p. 8.

- calibrate equipment, if necessary,
- demonstrate that they can detect measure and record gas leaks accurately;
- Requalification training should occur at least annually;
- Requalification training should also occur before an operator can use any equipment that he/she has not used within the past 60 days;
- All training records should be retained for a period of time in accordance with GO 112 and any applicable CFRs.³⁰

The cost of conducting these types of training programs should be considered in each utility’s next rate case, but as part of this proceeding the Commission should request the utilities to compare their current practices with the recommendations in the SED Report.

8. Annual reports

ORA recommends for reporting, that careful consideration be given to assess if there are duplicative reporting requirements elsewhere, or if there is another report the required information could be best integrated into.

III. CONCLUSION

ORA appreciates the opportunity to provide these comments on the proposed SED Staff Report “Survey of Natural Gas Leakage Abatement Best Practices.”

Respectfully submitted,

/s/ LAURA TUDISCO
LAURA TUDISCO

Attorney for
The Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-2164
E-Mail: laura.tudisco@cpuc.ca.gov

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³⁰ SED Report, p. 23.