

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a Risk-Based Decision-Making Framework to Evaluate Safety and Reliability Improvements and Revise the General Rate Case Plan for Energy Utilities.

Rulemaking 13-11-006
(Filed November 14, 2013)

**RESPONSE OF
SOUTHWEST GAS CORPORATION (U 905 G)
TO THE ATTACHMENT A QUESTIONS
IN ORDER INSTITUTING RULEMAKING 13-11-006**

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10 Southwest Gas Corporation ("Southwest Gas") hereby provides its response to the
11 questions in Attachment A to Order Instituting Rulemaking dated November 14, 2013, in the
12 above-captioned docket. A copy of Southwest Gas' written responses is enclosed herewith as
13 Appendix 1. Although Southwest Gas' risk management and compliance groups have
14 responsibilities that extend beyond the areas of pipeline and employee safety, these
15 comments are tailored to address those specific safety areas that are raised in the Order
16 Instituting Rulemaking.

17 DATED this 20th day of December 2013.

18 Respectfully submitted,
19 SOUTHWEST GAS CORPORATION

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Appendix 1

SOUTHWEST GAS CORPORATION

APPENDIX 1

1. Please provide a description of your risk management units/divisions, programs, functions, and process, including organization charts.

Response:

The management of risk for distribution assets, functions and processes are depicted in the Company's Distribution Integrity Management Program (DIMP) and Distribution Pipeline Integrity (DPI) Policy and Procedure. The risk management for transmission assets, functions and processes are found in the Company's Transmission Integrity Management Program (TRIMP). Southwest Gas is a multi-jurisdictional utility with corporate offices in Las Vegas, Nevada and three divisions operating in California. The DIMP and TRIMP work groups, which manage the above policies and procedures, are located within Corporate Engineering Staff. Compliance with such procedures is accomplished by those work groups and each of the three divisions operating in California.

Additionally, the Company has a Damage Prevention Program (DPP) which the Company uses to track and manage damage prevention. Compliance with the DPP procedures is accomplished by the DIMP work group and each of the three divisions operating in California.

The Company is active in industry organizations, One-Call centers, stakeholder groups and public forums to work collaboratively with the public, excavators, emergency responders and regulatory agencies to optimize opportunities for the success of the DPP. To that end, Southwest Gas also strives to build, maintain and enhance its partnerships with public safety and emergency response agencies within the communities it serves. These partnerships facilitate the Company's immediate and effective emergency response in the event of a natural gas related incident.

The management of employee safety is managed diffusely throughout the Company. Within the corporate Risk Management Department is an Occupational Health and Safety work group that manages the Company's employee safety policies and procedures. Those procedures primarily cover non-pipeline safety jurisdictional topics. Compliance with such procedures is primarily accomplished at each of the three divisions operating in California.

An organizational chart showing the DIMP, TRIMP, and Occupational Health and Safety work groups and the management of the operating divisions is included as Exhibit 1.

2. How do you currently identify and characterize risk?

Response:

DIMP identifies and characterizes risk in accordance with 49 CFR Part 192, subpart P. TRIMP identifies and characterizes risk in accordance with Part 192, subpart O and ASME B31.8s – 2004 (incorporated by reference into 49 CFR Part 192). Risk determined by these methods is a relative risk ranking of each class of facility, comparing one facility to another. Additional information is included in the Company's California Safety Plan, approved by the Commission on December 12, 2012 (Decision No. 12-12-009), as amended on June 28, 2013.

Corporate Safety maintains and updates data related to vehicle accidents and occupational injury events. At least annually, the data from the current year and the previous four years is analyzed to identify the types and severity of those events to determine what "risks" employees are likely to encounter and for which preventative measures are warranted.

3. What are your top ten safety risks?

Response:

Third-party excavation damage is the most prevalent risk to the Company's distribution system. However, the Company does not rank its safety risks in the manner described by this request. Instead, it identifies safety risks in accordance with the Company's integrity management plans and its operational experience. The DIMP and TRIMP programs take into account localized threats identified through continued surveillance and other means, Pipeline and Hazardous Materials Safety Administration (PHMSA) advisories, NTSB reports and relevant regulatory agency concerns. The employee safety policies and procedures take into account analyses of work related hazards and exposures.

4. How do you identify changes to address these risks? Are practices beyond compliance with current regulation considered?

Response:

Yes, the Company considers practices beyond compliance with current regulations. Preventative and mitigative measures are implemented for TRIMP beyond minimum code requirements. In addition, the frequency of reassessments may be increased to identify changes in transmission facilities. DIMP implements additional and accelerated actions beyond code requirements when addressing threats. The analysis of occupational health threats occurs annually or more often as needed.

5. Currently how do you decide on resource expenditures to address recognized risks? Who decides? How is inspection and record-keeping used in this process?

Response:

The management for each of the three divisions operating in California and of the DIMP and TRIMP work groups recommend expenditures to Senior Management to address recognized risks by taking numerous pre-determined factors into consideration, including the urgency and type of risk, the ability to maintain public and employee safety, response to emergencies, effective customer service, and system reliability. The bulk of the resource expenditure decisions are guided by the DIMP and TRIMP analyses. All expenditures are authorized by Senior Management.

The expenditures to address occupational safety and health issues are based primarily on the periodic analysis of injury and illness events. In addition, the Company considers input from employees and developments within the industry. Expenditures follow the needs that are recognized through these processes and are authorized by Senior Management.

The Company utilizes inspection and record-keeping to verify and document that it addresses risks and complies with regulations and its pipeline safety programs.

6. What is the role of executive management in making or accepting these decisions?

Response:

As mentioned above, Senior Management approves expenditures to address safety risks associated with both pipeline and employee safety. Senior Management reviews overall levels of safety, service, and reliability, and adjusts resources and workforce size as appropriate, taking into account current operating conditions, lessons learned, new technology, and/or changes in regulatory requirements.

7. What are the major elements in your approach to managing safety risk? Specify programs or practices your company has in place to manage safety.

Response:

The Company assures the reliability of its pipeline systems through proper design, safe construction practices, comprehensive integrity management programs, improvement projects, continual surveillance, and routine inspection and maintenance. The Company manages safety risks by maintaining a workforce that is knowledgeable and qualified through continuous education, training, and participation in industry activities. In addition, the Company has instituted several programs, policies and procedures relevant to this question, which include the following:

- Transmission and Distribution Integrity Management Programs
- Incident debriefing and incident critique procedure
- Root Cause Analysis and Corrective Action procedures
- Material Investigation procedures
- Quality control procedures for operations and maintenance personnel
- Continuing surveillance activities
- Annual review of all manuals and procedures
- Damage Prevention Procedures
- Public Awareness Program and emergency responder liaison meetings
- Personnel and contractor safety and qualification and training
- PHMSA Alert Notices and Advisory Bulletins
- Work Management System for documenting completed work requests and remedial actions
- Employee safety policies and procedures
- Accident Prevention Committee reports
- Monthly field employee safety meetings
- Affiliation with and participation in the various pipeline safety organizations described in the Response to Question 9
- Operations and maintenance inspections

8. Do you currently have practices designed to support management of compliance, safety risk and/or quality?

Response:

Yes.

9. If yes, on what management directive, guidelines, standards or process design criteria have you based the design of these practices?

Response:

The Company bases its principles for the design of its compliance, safety risk, and quality practices on federal and state pipeline safety regulations and from practices of other pipeline safety oriented organizations in which the Company participates. These include, but are not limited to, the American Gas Association (AGA), American Petroleum Institute (API), Plastic Pipe Database Committee (PPDC), Gas Piping Technology Committee (GPTC), Common Ground Alliance (CGA), the Western Energy Institute (WEI), and the American Society of Safety Engineers.

10. How do you monitor trends in performance for your own management purposes (including but beyond regulatory reporting requirements)?

Response:

The Company monitors trends in performance by analyzing its Integrity Management Program leak reports and California Quarterly Incident Reports. Examples include

leaks per mile categorized by material, the number of excavation damages per 1000 locate tickets, the total number of hazardous leaks either eliminated or repaired categorized by cause, and the total number of hazardous leaks either eliminated or repaired categorized by material.

11. How do you keep up with industry best practices? Which industry standards do you follow? What do you do with what you learn? Please provide examples.

Response:

While the Company has an excellent safety record, Southwest Gas continuously strives to improve operations by evaluating industry best practices, and by considering the lessons learned from pipeline incidents and pertinent occupational safety incidents across the country. Information/procedures are incorporated into the Company's policies and procedures as applicable. A list of organizations that the Company is engaged with to identify best practices is provided in Appendix A of the Company's California Safety Plan.

The Company follows all industry standards incorporated by reference in both State and Federal pipeline safety regulations once they have been adopted by the regulations.

Successful examples of this process are Southwest Gas' key-hole inspection and installation technology application (best practices and emerging technologies gained from involvement with the Gas Technology Institute (GTI)), its implementation of defensive driver training after learning of this practice through the Pacific Coast Gas Association (later the Western Energy Institute (WEI)), and its piloting of robotic inspection of unspiggable transmission pipelines through NYSEARCH.

12. What do you include in your assembly of data or information to support continuous learning related to safety performance (e.g., incidents, close calls, precursors or leading indicators, root causes of events)?

Response:

The Company reviews data and information to support continuous learning related to its safety performance through methods that include but are not limited to the programs, policies and procedures identified in the Response to Question 7.

13. How do you monitor the condition of the infrastructure to support decisions on accelerated inspection/testing, repair or replace? How do you make related decisions? How often are these practices reviewed?

Response:

The Company has a work management system that documents work performed on both distribution and transmission assets. In addition, the Company has an in-house laboratory that processes material investigation for material failures resulting in leaks or other anomalies identified by the Company's field personnel. The Company

further supplements this information with analysis conducted by third-party laboratories.

Decisions on accelerated inspection and testing, repair, or replacement of the Company's infrastructure are made based upon the data gathered from its integrity management programs. As an example, evaluation of leakage data on Polyvinyl Chloride (PVC) pipe in the Company's California service territories drove an accelerated leak survey and replacement program.

DIMP monitors the condition of infrastructures and adjusts practices on an ongoing basis. This is accomplished through DIMP meetings with the respective subject matter experts and an annual review of leak and excavation damage data.

TRIMP conducts monthly monitoring of the maintenance work requests in the Company's work management system, reviewing leaks and failures to the transmission system. The data collected from this process is used to develop the annual transmission report and is reviewed with the Company subject matter experts at regularly scheduled meetings throughout the year. Company pipeline safety policies and procedures are reviewed on an annual basis.

14. How do you track progress in meeting explicit or implied commitments, including those implied in rate case proceedings?

Response:

Southwest Gas endeavors to have all of its commitments to the Commission explicitly reflected in a written decision or through communications with the Safety Enforcement Division (SED) and/or the Commission's other technical advisors. The Company tracks progress in different manners, depending on the commitment. In some instances (for example, the Company's PVC replacement program which was approved in its Test Year 2004 general rate case proceeding), the Company provides written progress reports pursuant to the requirements in the Commission's decision.

15. How, if at all, do you communicate the status of and need for modification of these commitments?

Response:

Communications regarding the status and any need for modification of the Company's commitments to the Commission vary depending on the commitment and any specific requirements articulated by the Commission. See Response to Question 14.

16. How do you solicit and manage employee input to safety issues?

Response:

The methods in which the Company addresses employee workforce contributions to safety issues are documented in its California Safety Plan. In addition, occupational safety contributions are solicited and managed through a combination of involvement by the Accident Prevention Committees, monthly field employee safety meetings, and employee involvement in the selection and evaluation of safety related equipment.

17. How do you follow-up on this input (e.g., make decisions to address issue, decide on how to address the issue, communicate to the originator the decisions and timeframe on which to expect closure)?

Response:

The methods and frequency of follow-up and communication are dependent upon the type of input that is sought or received. See Response to Question 16.

18. Do you have an internal safety and/or compliance audit function? If so, how are the results from these audits translated into decisions and action? How are actions monitored? Please provide examples.

Response:

Yes. Items identified during internal safety and compliance audits of the Company's three divisions operating in California result in written correspondence to the responsible Division and/or other Company departments. The Divisions or other responsible departments address any issues including submission of records demonstrating compliance. The appropriate Company department or work group reviews and accepts the responses as applicable. Examples include Pipeline Safety, Transmission Integrity Management and Public Awareness Programs.

19. Have you ever commissioned independent (including outside) safety and/or compliance audits? How are results translated to action and the results monitored? Please provide examples.

Response:

Yes. The Company commissions independent audits as applicable. Examples include audits of its Transmission Integrity Management and Control Room Management Programs. The Company incorporates those audit recommendations into its programs as applicable.

20. What are you doing to promote and assure an appropriate safety culture? Have you documented what an appropriate safety culture should include?

Response:

The California Safety Plan documents how the Company promotes and assures the appropriate safety culture. In addition, the Company has adopted a policy statement in the [Occupational Health and] Safety Manual that is endorsed by the Company's Chief Executive Officer; that statement is reviewed with employees and safety programs are implemented in accord with that statement.

21. What criteria should be used by the Commission to evaluate whether a utility has produced an adequate risk-informed GRC filing?

Response:

With respect to pipeline safety filings, Southwest Gas recommends that the Commission consult with and solicit input from SED. SED can evaluate a utility's compliance with DIMP and TRIMP regulations, together with other risk based activities that may fall outside those regulations through data requests and a review of the utility's annual PHMSA filings and any other utility reporting requirements.

Generally speaking, any criteria used by the Commission to evaluate whether a utility has produced an adequate risk-informed GRC filing should take into account the different rate case plans applicable to each utility. For example, Southwest Gas is a Small Multi-Jurisdictional Utility. Similarly, any criteria should also take into consideration any difference in operations that may exist between utilities such that utilities are not inequitably held to standards that are not reflective of their specific operations.

Organizational Chart

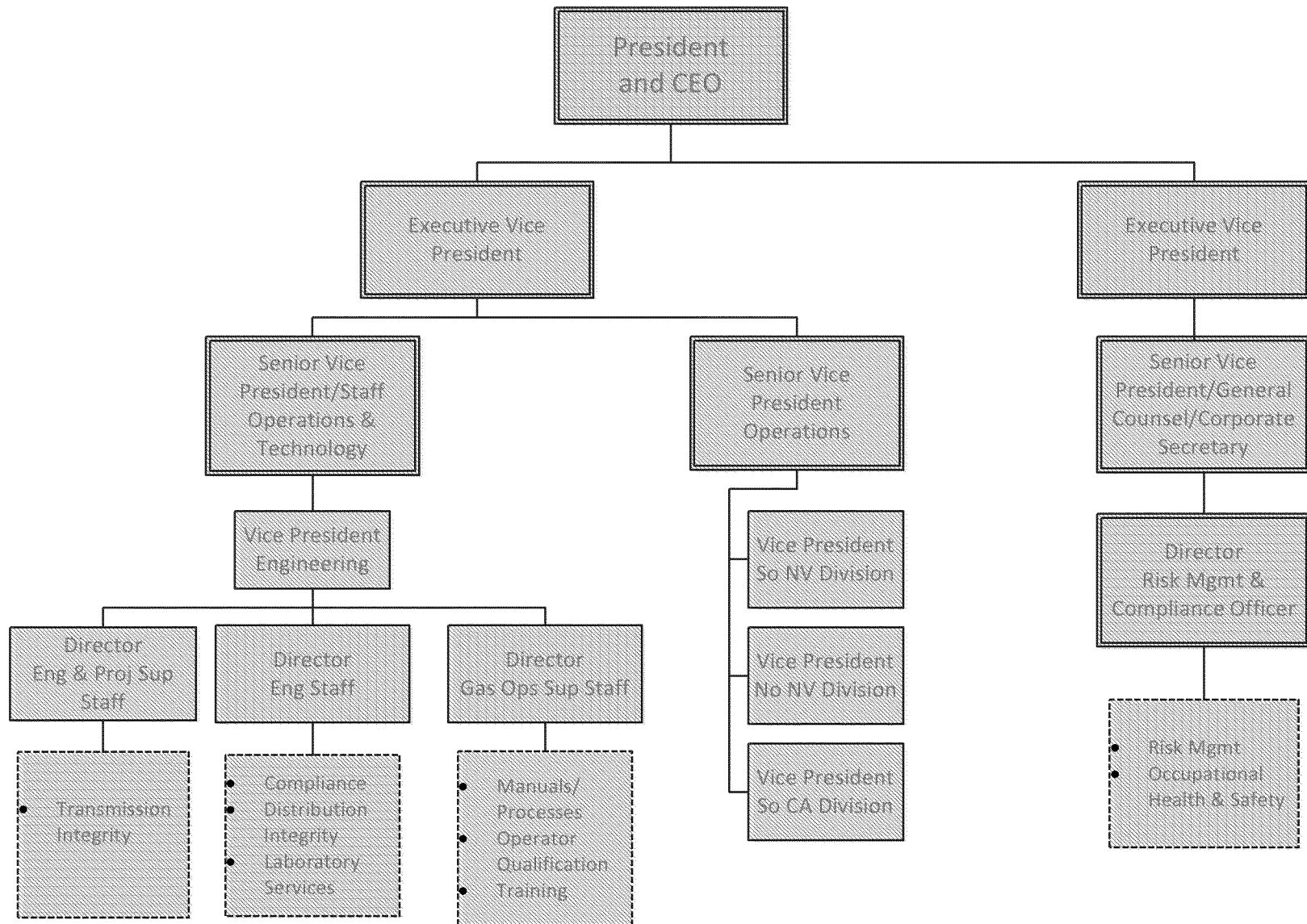


EXHIBIT 1