

FINAL Message Guide - Gas Safety Excellence

May 9, 2014

Overview

- In May, 2014, PG&E's Gas Operations achieved two international certifications in recognition of its world-class operational standards for asset management.
 - PG&E is one of the first companies in the world to hold both certifications:
 - ISO 55001: 2014 certification
 - PAS 55-1: 2008 certification
- This achievement will be promoted externally to earn trust, educate the public about our commitment to gas safety excellence and earn recognition from key stakeholders for obtaining certification. Celebratory events include:
 - May 19 - Press Event in Washington D.C. (trade press, delegates, industry orgs invited)
 - May 27 - Employee Event in Oakland, CA (media and local electeds will be invited)

Key Messages

- Since the San Bruno accident, PG&E has transformed its gas operations on our mission to become the safest, most reliable gas company in the country.
- As proof of our progress, we achieved two international certifications that recognize the comprehensive transformation of PG&E's safety culture and asset management program.
- We are proud to be one of the first companies in the world to hold both certifications.

Background

In May 2014, PG&E achieved two international certifications that recognize the Company's best-in-class operational standards for asset management. Both of these certifications – PAS 55-1 and ISO 55001 - were awarded by an independent, internationally recognized auditor, Lloyd's Register.

In early 2014, Lloyd's Register traveled throughout PG&E's 70,000-square-mile service area reviewing PG&E's safety practices, information management, risk management, employee qualifications, emergency response protocols and more than 20 additional critical areas of asset management. The certification process also involved a series of rigorous, independent audits and interviews of more than 150 PG&E management and field employees.

The underlying requirements of PAS 55-1 and ISO 55001 are the foundation of PG&E's safety management system. They require the highest level of rigor for managing the company's large number of physical assets, including transmission and distribution pipelines, pressure regulator stations, gas storage facilities, meters, and more.

PG&E joins other major companies around the world that have earned ISO 55001: 2014 or PAS 55-1: 2008 certification, including ScottishPower, London Underground, Fingrid, Scotia Gas Networks, EDF Nuclear, London Gatwick Airport and Western Power Distribution.

Frequently Asked Questions

1. What is PAS 55?

PAS 55-1: 2008 was developed by the Institute for Asset Management and published by the British Standards Institution. This rigorous specification is focused on optimized management of physical assets with widespread recognition among utilities, transport, mining, process and manufacturing industries worldwide.

2. What is ISO 55001?

ISO 55001: 2014 was developed by ISO to enable organizations to implement effective and efficient management systems for physical assets. The certification provides assurance that an organization can achieve its asset management objectives consistently and sustainably over time. ISO is an independent, non-governmental organization made up of members from the national standards bodies of 162 countries and has published more than 19,500 international standards covering almost all aspects of technology and business.

3. Why did PG&E pursue these certifications?

PG&E is on a mission to become the safest, most reliable gas company in the country. These international certifications, which can only be achieved through a rigorous, independent audit, are proof of our progress. They demonstrate the growing strength of our safety culture, our rigorous approach to asset management and our unwavering commitment to gas safety excellence.

4. What do the certifications mean?

By way of independent audit, PG&E has successfully demonstrated its commitment to gas safety excellence through the implementation of industry best practices, strong corporate governance around asset management and a robust platform for continuous improvement.

Certification also provides PG&E's customers, regulators and employees with assurance that the asset management policies and practices are effective and that a system is in place to identify areas that fall short of the industry standard. Continuous improvement is at the heart of a safety culture and PG&E encourages all employees to raise issues and submit them through the company's Corrective Action Program where issues are tracked until resolution.

5. What can you tell me about the independent auditor, Lloyd's Register?

Lloyd's Register (LR) is a global engineering, technical and business services organization wholly owned by the Lloyd's Register Foundation, a UK charity dedicated to research and education in science and engineering. Founded in 1760 as a marine classification society, LR now operates across many industry sectors, with over 9,000 employees based in 78 countries.

LR has been a key player in the development of PAS 55-1 and ISO 55001 and has supported over 50 companies worldwide across a variety of sectors.

6. What is asset management?

Effective asset management means the organization understands the condition of its assets and the potential risks throughout the asset lifecycle, and has a rigorous plan to manage resources and reduce risk in the most effective way.

7. When did PG&E apply for PAS 55-1 and ISO 55001?

After the San Bruno accident, PG&E set out to become the safest, most reliable gas company in the country. To achieve our vision, we adopted these standards to develop our own world-class safety management system.

We have been working toward these certifications for more than two years and will remain committed to gas safety excellence to ensure that we sustain these world-class operational standards going forward.

8. Will PG&E's other lines of business (Electric Ops/ Energy Supply) apply for these certifications?

PG&E recognizes the benefits of these certifications and we are exploring the potential to implement PAS 55-1 and ISO 55001 standards for other lines of business within the company.

9. Will the PAS 55-1 and ISO 55001 certifications expire?

To maintain certification, PAS 55-1 and ISO 55001 must be renewed every three years along with annual observation assessments. The need to renew frequently creates greater accountability for certified organizations as they are required to meet the requirements of the standards and demonstrate continuous improvement prior to renewal. As a result, PG&E's Gas Operations must both sustain the performance demonstrated at the time of initial certification and continue to improve in order to keep the certifications.

10. What were the milestones for PG&E?

In early 2014, Lloyd's Register traveled throughout PG&E's 70,000-square-mile service area reviewing PG&E's safety practices, records management, asset management policies, employee qualifications, emergency response protocols and more than 20 additional critical areas of safety management. The certification process also involved a series of rigorous, independent audits and interviews of 150 PG&E management and field employees.

In May 2014, Lloyd's Register completed the audit and officially recognized PG&E's growing safety culture and robust asset management system with PAS 55-1 and ISO 55001 certifications.

11. How many people were dedicated to the certification process? Or, how many staff hours?

The certification process was conducted by an independent auditor, Lloyd's Register. In February and May 2014, the auditors spent several weeks traveling more than 1,700 miles throughout PG&E's service area observing about 150 office- and field-based employees and contractors.

12. What is a safety management system and how has PG&E's system transformed gas operations?

Safety management systems are designed to improve safety, manage risk, and drive continuous operational improvement. For PG&E's Gas Operations, a world-class safety management system embodies three core elements:

- A. Asset Management – knowing the condition of our assets and having a robust plan to manage those assets based on accurate information and understanding and managing risks to those assets.
 - *Having a complete and thorough understanding of our assets is critical to operating a safe, reliable and affordable natural gas system. This starts with creating*
- B. Safety Culture – embracing and encouraging open and honest communication among employees and leaders, and the alignment of human performance with the organizational strategy.
 - *For example, Gas Operations launched the Corrective Action Program as a formal mechanism that employees use to report any safety issues or operational concerns no matter how big or small. Any employee can also report an issue anonymously.*
 - *PG&E is also strengthening its safety culture by investing in workforce development and supplying the latest tools and technology to enhance the safety and reliability of its gas service.*
- C. Process Safety – a comprehensive series of process and procedures that serve as controls, preventing large-scale operational failures and the associated risks.
 - *As an example of process safety, before starting pipeline work in the field, employees are conducting new and improved pre-startup safety reviews to identify any safety issues that may be present prior to starting a job. Process safety helps reduce risk and prevent failures on the gas system. PG&E is enhancing process safety by ensuring that qualified employees have the proper tools, training and clear procedures to do the work correctly and efficiently.*

Additional Narrative:

After the San Bruno accident, PG&E set out to become the safest, most reliable gas company in the country. We knew that the only way to achieve our vision of gas safety excellence was to transform Gas Operations from the inside out. We are proud of the progress we've made and are honored to be recognized for having best-in-class operational standards for asset management.

PG&E's gas operations are dependent on physical assets, including large and small pipelines, regulator stations, gas storage facilities, meters, and more. It's critical that we have a comprehensive asset management system to effectively manage risk and know with certainty the exact location, condition and lifecycle of our assets in order to manage them efficiently.

Safety is at the heart of everything we do and our safety culture reflects that. PG&E is also strengthening its safety culture by investing in workforce development and supplying the latest tools and technology to enhance the safety and reliability of its gas service. Continuous improvement is at the heart of a safety culture and PG&E encourages employees to raise issues and submit them through the company's Corrective Action Program where the issues are tracked until resolution.

Operational Highlights from the Gas Operations Improvement Tracker:

- **We've earned two prestigious international certifications:** In May 2014, PG&E became one of the first utilities in the world to achieve PAS 55-1 and ISO 55001 certifications for best-in-class asset management. These certifications were awarded by an internationally recognized independent auditor and demonstrate the growing strength of our safety culture, our rigorous approach to asset management and our unwavering commitment to gas safety excellence.
- **We're responding to gas odor calls faster than ever:** In March 2014, employees responded to calls within 60 minutes 99 percent of the time. The average response time in March was 20.0 minutes reducing the 2014 average to 20.1 minutes. PG&E now ranks in the top quartile for gas utilities nationally.
- **We've closed out nine of twelve NTSB recommendations:** Of the twelve safety actions recommended by the NTSB following the San Bruno accident, PG&E has completed nine. Work on the remaining three recommendations is already well underway.
- **We've made significant progress on our Pipeline Safety Enhancement Plan*:** Since the program began in 2011, we have validated the maximum allowable operating pressure for 676 miles of transmission pipeline -- 541 miles validated through hydrostatic strength testing and 136 through verified records; replaced 105 miles of transmission pipeline; automated 141 valves; and collected and digitized more than 3.5 million pipeline records.
**PSEP data valid as of March 31, 2014*
- **We've launched a system to track issues from identification through resolution:** The Corrective Action Program provides employees and contractors with a system that offers multiple platforms for reporting issues and potential issues and tracks the corrective actions taken to prevent them from happening or reoccurring.
- **We're mapping and surveying the centerlines of all transmission pipelines:** We are using precise GPS coordinates to map the centerline of all 6,750 miles of gas transmission pipeline and will be clearing any vegetation or structures that could interfere with our ability to maintain, inspect and safely operate them.
- **We've opened a cutting-edge gas control center:** In August 2013, PG&E opened its new 42,000-square-foot control center allowing transmission, distribution and dispatch operators to work side-by-side 24 hours a day, seven days a week. This increases our visibility and control of the gas system, and our ability to operate efficiently and respond quickly to changing conditions.
- **We're using new tools and technology:** In 2013, we supplied 400 ruggedized laptops to gas construction crews, providing them with real-time access to detailed maps of our underground gas

system. PG&E also partnered with 3P Services to develop a cutting-edge “smart pig,” customized for PG&E’s gas system, providing an efficient, accurate way to assess the internal condition of pipelines. PG&E also became the first utility to use Picarro’s car-mounted natural gas leak detection device – the world’s most advanced leak detection tool.

→ We’re improving the quality of, and access to, our gas distribution records: Set to be fully deployed in 2014, we’ve created a Geographical Information System (GIS) tool to map, reconcile and analyze the data and events that take place on PG&E assets and are training employees to use this centralized system.