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Safety Management for Public Gas Systems

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Natural Gas[™]
Comfortable. Responsible.



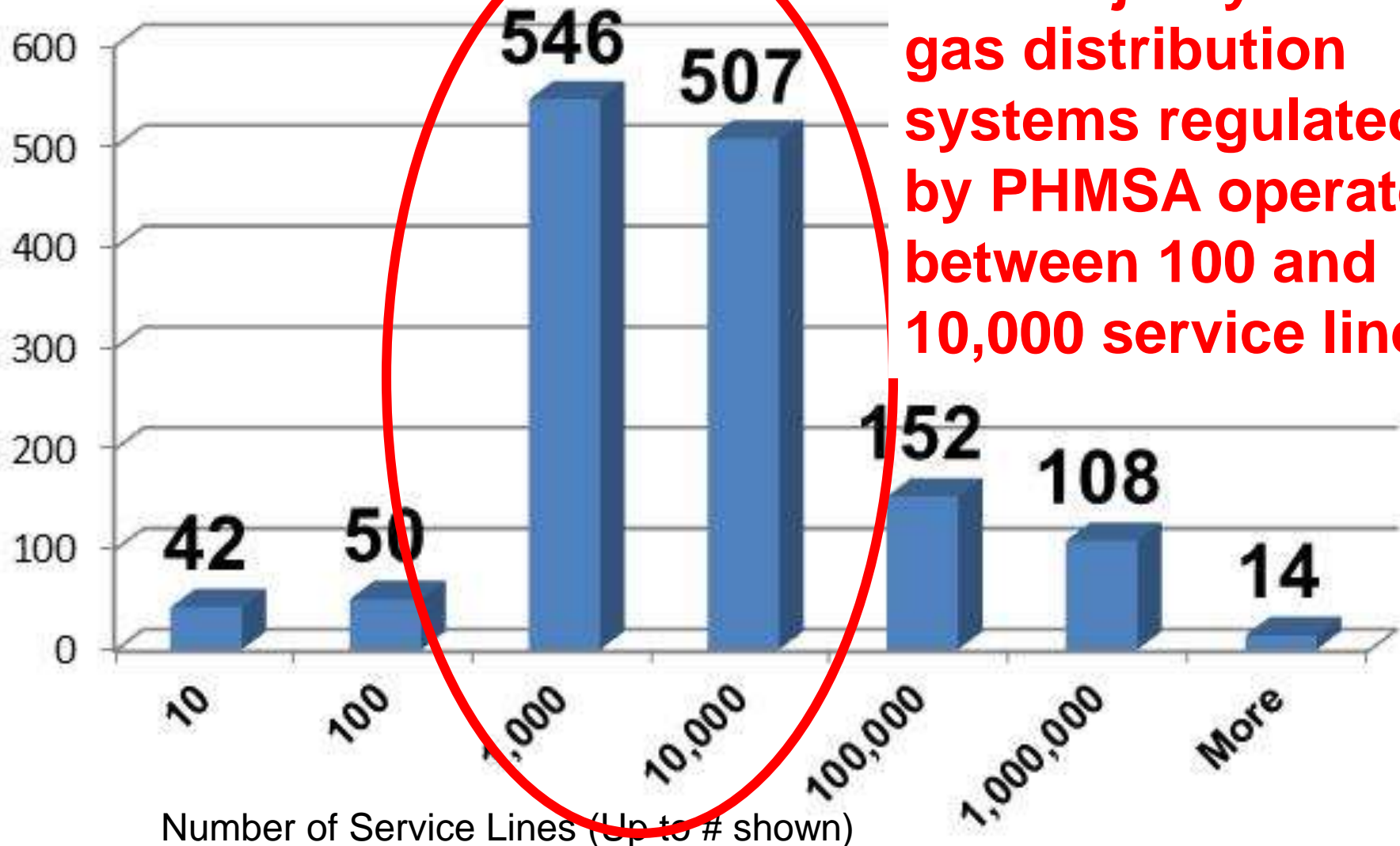


American Public Gas Association

- ~1000 community-owned gas systems
- Over 700 are APGA members
 - 37 states
 - Serving ~5 Million Customers
 - ~21,000 Employees
 - Operating ~120,000 Miles of Main
- Systems size: 19 to ~500,000 meters
- Largest: Philadelphia with ~ 500,000 meters
- Smallest: Wagner County, OK with 19 meters

Size of US Gas Distribution Systems

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The majority of US gas distribution systems regulated by PHMSA operate between 100 and 10,000 service lines

PSMS: RP 1173

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- Result of a hazardous liquid accident
- APGA supports effective safety management systems for public gas systems
- All ten elements in the draft RP 1173 are applicable for public gas, however ...
- RP 1173 is geared toward managing safety in large pipeline operations with thousands of widely dispersed employees
- It is written in language most public gas system managers would find foreign
- It would be difficult, if not impossible for most public gas systems to adopt RP 1173

Enforcing RP 1173

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- The word “shall” appears 150 times in RP 1173
- PHMSA is developing a form for auditing compliance with RP 1173, even though RP 1173 is strictly voluntary
- The draft PSMS inspection form is 150 pages long!

PSMS Elements

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1. Leadership and Management Commitment
2. Stakeholder Engagement
3. Risk Management
4. Operational Controls
5. Incident Investigation, Evaluation, and Lessons Learned
6. Safety Assurance
7. Management Review and Improvement
8. Emergency Preparedness and Response
9. Competence, Awareness, and Training
10. Documentation and Record Keeping

Safety Culture

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- Leadership and fostering a safety culture is central to the success of PSMS
- Some elements of safety culture:
 - Support at all levels
 - Non-punitive reporting of safety issues
 - Authority to shut down jobs that are unsafe

Top Management

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As a member of the utility's governing body, what can I do to promote a safety culture?

- Budget to safely operate and maintain the utility
- Periodically review with utility managers the capital improvement needs of the utility;
- Periodically review with utility managers the safety record of the utility and the status of any safety-related improvement projects; and
- Encourage utility managers and employees to come to you with any and all safety concerns.
- Provide feedback to employees who raise safety issues



As a utility supervisor, what can I do to promote a safety culture?

- Establish and maintain policies, goals, and objectives that promote a positive safety culture;
- Identify and allocate resources sufficient for safe, reliable and efficient operations;
- Establish performance goals that include safety measures;
- Review the utility's safety record and performance goals in all management meetings;
- Communicate your commitment to safety to internal and external stakeholders;

Employees

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As a utility employee, what can I do to promote a safety culture?

- Follow the procedures set forth by the utility;
- Talk to your supervisor about where procedures can be improved to improve safety;
- Bring to the attention of supervisors any and all safety concerns, and
- Always protect the safety of customers, the public and fellow employees during both routine and emergency situations.

Stakeholder Engagement

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- Process for communication and engagement with internal and external stakeholders regarding safety
- Internal stakeholders are employees, managers and members of the governing body.
- External stakeholders include customers, non-customers who live and work near gas lines, excavators and others who dig near gas lines and fire, police and others who may be called upon to respond to a natural gas emergency
- Essentially your Public Awareness Plan

Risk Management

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- Data Gathering and Evaluation of Quality
- Risk Identification and Assessment
- Risk Prevention and Mitigation
- Periodic Analyses
- Analysis Review
- Essentially your DIMP program

Operational Controls

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- Content of Operating Procedures
- Review
- Safe Work Practices
- System Integrity
- Management of Change
- Outsourcing and Contractors
- Essentially your O&M and safety manuals



Incident Investigation, Evaluation, and Lessons Learned

- Investigation
- Follow-up and Communication of Lessons Learned
- Learning from External Events
- Essentially the incident investigation procedure from your O&M and safety manual

Safety Assurance

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- “The utility shall periodically evaluate all elements of the pipeline safety management system”
 - a) the effectiveness of the elements of the PSMS;
 - b) review of processes and procedures;
 - c) ensuring procedures reflect current requirements;
 - d) verifying that the PSMS is effective at producing intended safety performance improvement;
 - f) considering any incident investigation results;
 - g) reviewing data generated from O&M;
 - h) identifying new and emerging risks;
 - i) recommending improvements to PSMS plans and procedures based on evaluation findings



Management Review and Improvement

- The utility's PSMS and safety performance shall be reviewed at least annually by management to evaluate whether the performance goals and objectives have been met.



Emergency Preparedness and Response

- a. determination of potential types of emergencies;
 - b. internal and external notification requirements;
 - c. identification of response resources;
 - d. recognition and use of Unified Command/Incident Command Structure;
 - e. safety, health, and environmental protection processes;
 - f. communication plan;
 - g. training and drills, including involvement of external agencies (e.g. emergency responders);
 - h. lessons learned and improvement process;
 - i. periodic review and updating of the plan
- **Covered in manual for O&M and Emergencies**



Competence, Awareness, and Training

The utility shall establish a training schedule to ensure that personnel and contractors are updated and aware of:

- a. applicable elements of the PSMS that affect their job requirements;
- b. accountabilities, responsibilities, and authorities in executing with the requirements of the pipeline safety management system;
- c. newly emerging or changing risks, problems in execution of the pipeline safety management system, and opportunities to improve processes and procedures;
- d. potential consequences of failure to follow processes or procedures.

NOTE: This PSMS element is typically addressed in the utility's Operator Qualification Plan

Documentation and Record Keeping

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- Control of Documents
- Control of Records
- The PSMS documentation shall include:
 - a. statements of the safety policy and objectives;
 - b. procedures established for the PSMS as required by this document and/or the pipeline utility;
 - c. documents and records of work required by the pipeline safety management system
 - d. identification of regulatory and other applicable requirements.
 - e. other records identified by the utility needed to show the effective operations of the pipeline safety management system.

NOTE: Examples of documents include the manual for operations, maintenance and emergencies, including related inspection and maintenance forms; Utility Qualification Plan; Public Awareness Plan; Distribution Integrity Management Plan and other required documents

Summary

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- PSMS is not duplicating existing plans and procedures
- PSMS is ensuring that plans and procedures are consistent, being followed and effective at managing safety

SIF Development

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- SHRIMP is the SIF's most known product, however;
- Drug and alcohol plan tool is complete
- Development is underway on:
 - O&M and emergency manual tool
 - Public Awareness Plan tool
 - OQ tool
- All plans will be consistent with each other



Questions?