

APGA & SIF Update

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American Public Gas Association

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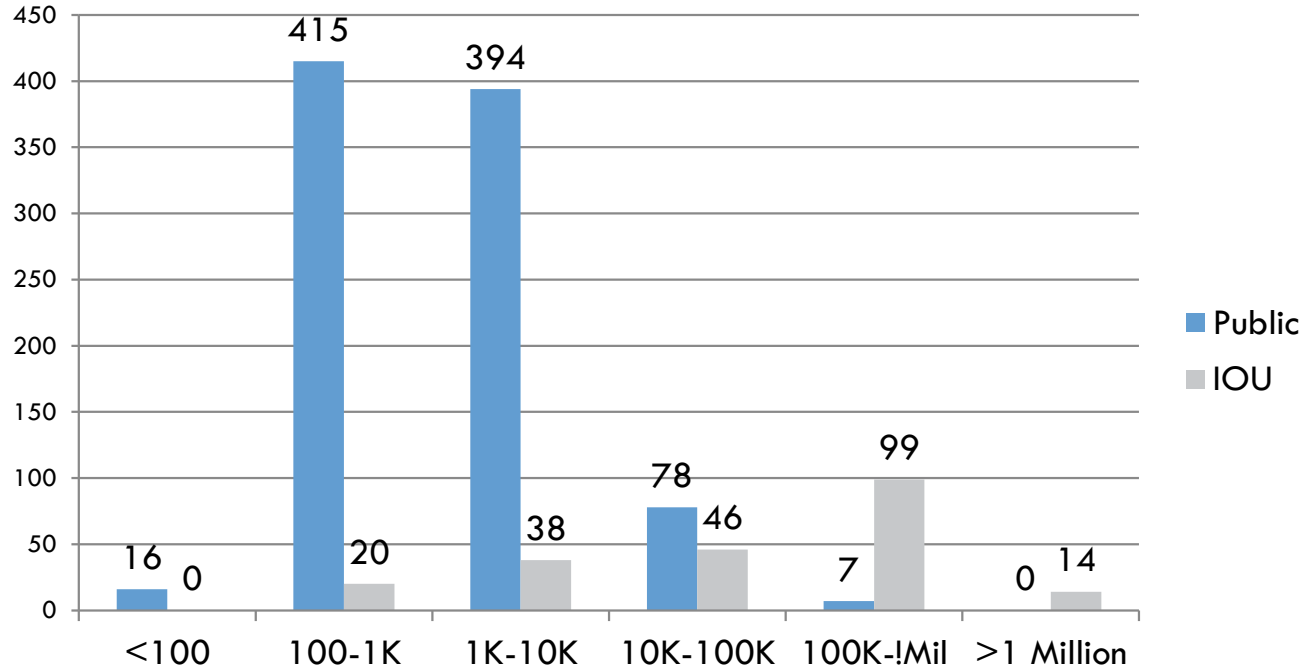
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- ~1000 community-owned gas systems
- Over 700 are APGA members
 - 37 states
 - Serving ~5 Million Customers
 - ~21,000 Employees
 - Operating ~120,000 Miles of Main
- Systems size: 19 to ~500,000 meters
- Largest: Philadelphia with ~ 500,000 meters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

US Gas Distribution Industry

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Most utilities regulated by PHMSA have fewer than 10,000 customers



Source: PHMSA Form 7100.1-1, 2016 Data

What I'll Cover

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- ▣ Pipeline Safety Management Systems (PSMS) for Public Gas
- ▣ System Operational Achievement Recognition (SOAR)
- ▣ SIF Programs:
 - SHRIMP
 - Other plan tools
 - Training video series (New)

Pipeline Safety Management Systems

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“PSMS is a management tool that will help a pipeline operator comprehensively manage all the many aspects of pipeline safety.”

Pipeline Safety Management Systems

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- APGA supports effective safety management systems for public gas systems.
 - ▣ APGA Commitment to Pipeline Safety (2018)



Pipeline Safety Management Systems

- However, there are challenges...
 - ▣ Written *by* and *for* large operators with many employees
 - ▣ Terminology is not compatible with municipal gas systems
 - ▣ Specific elements would be difficult to adopt
- PSMS is not required by regulation
 - ▣ The word “shall” appears 234 times in RP 1173



“Shalls” are the issue

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10.2.2 Audits

“The pipeline operator shall perform audits to examine its conformity with this RP and the implementation of its PSMS.”

“An audit may be performed by external professionals or internal personnel not involved in the work of the PSMS or the operations being audited. Examples may include personnel of a separate operating unit, an organization's compliance unit, an organization's internal audit group, or external parties such as professional auditors, subject matter experts, or peer operators.”

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

PSMS Elements (continued)

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6. Safety Assurance
7. Management Review and Improvement
8. Emergency Preparedness and Response
9. Competence, Awareness, and Training
10. Documentation and Record Keeping

PSMS Elements

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1. Leadership and Management Commitment
2. Stakeholder Engagement (Public Awareness)
3. Risk Management (DIMP)
4. Operational Controls (O&M Manual)
5. Incident Investigation, Evaluation, and Lessons Learned (O&M/Emergency Manual)

PSMS Elements (continued)

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6. Safety Assurance
7. Management Review and Improvement
8. Emergency Preparedness and Response (Emergency Manual)
9. Competence, Awareness, and Training (OQ plan)
10. Documentation and Record Keeping (Various plans)

Pipeline Safety Management Systems

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- How APGA is helping smaller operators?
 - ▣ Participation in Industry PSMS Implementation Team
 - ▣ APGA PSMS Task Group
 - Maturity Model, **Planning Tool**, Implementation Tool, 3rd party Audit Tool, etc.



APGA PSMS Planning Tool

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STEP #1 – Consolidate Questions

- Industry PSMS Planning Tool = 71 Questions
- APGA PSMS Planning Tool = 50 Questions

STEP #2 – Translate the Questions to Gas Distribution Terminology

APGA PSMS Planning Tool

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STEP #3 – Develop User Interface (In Progress)

Question: Is there a plan on how to identify and manage risks to system integrity?

- 1 – Not Yet.
- 2 – We have a DIMP and / or TIMP plan, but **struggle** to follow and update it.
- 3 – We have a DIMP and / or TIMP plan that we update **occasionally**. We perform **some** of the risk reducing activities identified in it.
- 4 – We have a DIMP and / or TIMP plan and update it **annually**. We **plan** to perform the risk reducing activities identified in it.
- 5 – We have a DIMP and / or TIMP plan, update it **annually**, and we are **committed** to performing the risk reducing activities identified in it. We track the progress of those activities.

APGA PSMS Planning Tool

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STEP #4 – Provide Gap Analysis

1 – Not Yet.

Priority = **Very High**

1. Collect pertinent pipeline and operational attributes/data for input in DIMP plan.
2. Develop a DIMP or TIMP plan as applicable.
 - Available Tools = SHRIMP
3. Develop a schedule and plan to follow the recommended mitigative measures that are identified in your DIMP plan.

2 – We have a DIMP and / or TIMP plan, but struggle to follow and update it.

Priority = **High**

1. Set a schedule for review of pertinent pipeline and operational attributes that is inputted into your DIMP plan.
2. Develop a schedule and plan for how you will perform the recommended mitigative measures that are identified in your DIMP plan.

APGA PSMS Planning Tool

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STEP #4 – Provide Gap Analysis

3 – We have a DIMP and / or TIMP plan that we update occasionally. We perform some of the risk reducing activities identified in it.

Priority = **Medium**

1. Set a schedule for review of pertinent pipeline and operational attributes that is inputted into your DIMP plan.
2. Develop a schedule and plan for how you will perform the recommended mitigative measures that are identified in your DIMP plan.

4 – We have a DIMP and / or TIMP plan and update it annually. We plan to perform the risk reducing activities identified in it.

Priority = **Low**

1. Develop a pipeline safety “scorecard” or “dashboard” for your system that tracks the progress of the mitigative measures identified in your DIMP plan.

5 – We have a DIMP and / or TIMP plan, update it annually, and we are committed to performing the risk reducing activities identified in it. We track the progress of those activities.

APGA PSMS Planning Tool

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STEP #5 – Develop Tools to Assist in Closing Gaps

Examples:

- Pipeline Safety Scorecard / Dashboard
 - Tracks activities / actions related to compliance & integrity management plan
- Job Hazard Analysis Form
 - A form to be used prior to routine & unique construction jobs that assist the crew in identifying potential hazards on the job (overhead powerlines, traffic, shoring, etc.)



- SOAR = **S**ystem **O**perations **A**chievement
Recognition
- Give recognition to those APGA members that have demonstrated a culture of operational excellence
- Every APGA member can earn the recognition, if they meet the criteria

Four areas of review

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- Operational excellence is measured in 4 areas:
 - ▣ System Integrity
 - ▣ Employee Safety
 - ▣ Workforce Development
 - ▣ System Improvement



APGA System Operational Achievement Recognition - Employee Safety

1. Does your utility have a written employee safety manual and/or employee safety procedures?

- Yes
- No

5. Does the safety manual or program address the following safety issues (check all that apply)

- A statement of safety commitment from management that the manual is to be followed for all work practices
- Properties and hazards of Natural Gas
- Odorant Safety
- Fire safety/Use of fire extinguishers
- Head Protection
- Eye and Face Protection

WINNERS

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- Recognition will be granted at three levels of accomplishment:
 - ▣ Bronze (80-89%),
 - ▣ Silver (90-96%) or
 - ▣ Gold (>97%) level achievers.
- We trust the applicant to answer questions honestly rather than require submission of every document

WINNERS

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□ **Gold**

- Chambersburg Gas Department, PA
- Paris Henry County Public Utility District, TN
- Rocky Mount Public Utilities, NC
- City of Tallahassee Gas Department, FL

Silver

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- Chester County Natural Gas Authority, South Carolina
- CPS Energy, Texas
- Elk River Utility District, Tennessee
- Greenville Utilities Commission, North Carolina
- Greer Commission of Public Works, S.C.
- Huntsville Utilities, Alabama
- Jackson Energy Authority, Tennessee
- Knoxville Utilities Board, Tennessee
- Lake Apopka Natural Gas District, Florida
- Lancaster Municipal Gas, Ohio

Silver

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- City of Lawrenceville, Georgia
- City of Lexington, North Carolina
- **City of Mesa, Arizona**
- Midwest Energy Inc., Kansas
- Norwich Public Utilities, Conn.
- Okaloosa Gas District, Florida
- Owatonna Public Utilities, Minn.
- Smyrna Natural Gas, Tennessee
- City Utilities of Springfield, Missouri
- Westfield Gas and Electric, Massachusetts

Bronze

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- Austin Utilities, Minnesota
- City of Chanute, Kan.
- Corinth Gas & Water, Mississippi
- Decatur Utilities, Alabama
- Gibson County Utility District, Tennessee
- Jefferson Cocke County Utility District, Tenn.

Bronze

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- Long Beach Gas & Oil, California
- Oak Ridge Utility District, Tennessee
- Powell Clinch Utility District, Tennessee
- The Utilities Board of Roanoke, Alabama
- Sevier County Utility District, Tennessee
- Shelby, N.C.



Security & Integrity Foundation (SIF)

- Established in 2004
- Independent of APGA
- Assist small operators to operate safe gas distribution systems
- “Small operators” include —
 - Natural gas utilities
 - Master meter, and
 - Propane piping systems
- For 10 years funded through a cooperative agreement with PHMSA
- Is now self-sufficient



SIF Programs

- Operator Qualification Evaluations
- Operation and maintenance procedures
- SHRIMP
- Drug and Alcohol Testing Plan tool
- Operator Qualification training
- O&M Manual creation tool
- OQ plan creation tool
- Public Awareness plan creation tool



SHRIMP

- Simple
- Handy
- Risk-based
- Integrity
- Management
- Plan



SHRIMP

- On-line software product similar to tax preparation software (TurboTax)
- SHRIMP asks the user a series of questions about the system and its inspection and maintenance history
- Questions change based on answers
- Output is a (nearly) complete DIM Plan



Common Issues

1. User did not create subsections
2. User accepted SHRIMP risk ranking without review
3. User is not aware of actions required to comply with the DIMP plan
4. User did not list data sources



New Potential Threat

- Permalock tapping tees
- NTSB Recommendations: Revise installation instructions and include in DIMP
- SIF will update SHRIMP to include in threat assessment



Other SIF programs

- Also available:
 - Drug and alcohol plan creation tool
- Under development:
 - Operations and maintenance manual creation tool
 - Public awareness plan creation tool
 - Operator qualification plan creation tool



New SIF Program

- Series of “Gas 101” videos
- Short (5-10 minute recorded webcasts) each addressing an important operations topic
- Target audience:
 - Newly elected, appointed Board/City Council members and other government officials
 - Newly hired employees
 - Newly promoted utility supervisors



Gas 101 Videos

- First 3 have been recorded in draft:
 - What is natural gas?
 - How does natural gas get from wellhead to burner tip?
 - What are the roles of state and federal government in regulating pipeline safety?
- Future videos will drill down in areas where users seek more information
- Viewing videos will be free



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