



Public Awareness

Overview

When

The 2005 Final Rule modified pipeline safety regulations found in 49 CFR §192.616 and §195.440



§192.616 Amended in 2007 for operators of master meter systems and certain petroleum gas systems
Took effect January 14, 2008.

Why

A more informed public along pipeline routes should supplement an operator's pipeline safety measures and should contribute to reducing the likelihood and potential impact of pipeline emergencies and releases.

§ 192.616/§ 195.440 Public Awareness

Requires operators to follow
the guidance of API RP 1162,
“Public Awareness Programs”,
First Edition, December 2003



§ 192.616/§ 195.440 Public Awareness

- Defines baseline and supplemental (enhanced) programs
- Provides the operator with:
 - elements of a recommended baseline Public Awareness Program.
 - considerations to determine when and how to enhance the program to provide the appropriate level of public awareness outreach.



✓ Public Awareness Applicability

- Applies to:
 - Interstate and intrastate natural gas and hazardous liquid transmission pipelines
 - Natural gas distribution companies
 - Gathering pipeline operators

✓ Public Awareness Applicability

- **Limited applicability for:**

- *Operators* of a master meter or petroleum gas systems
 - Must have a written procedure (§192.616 (h) (j))
 - Provide **its customers** public awareness messages twice annually



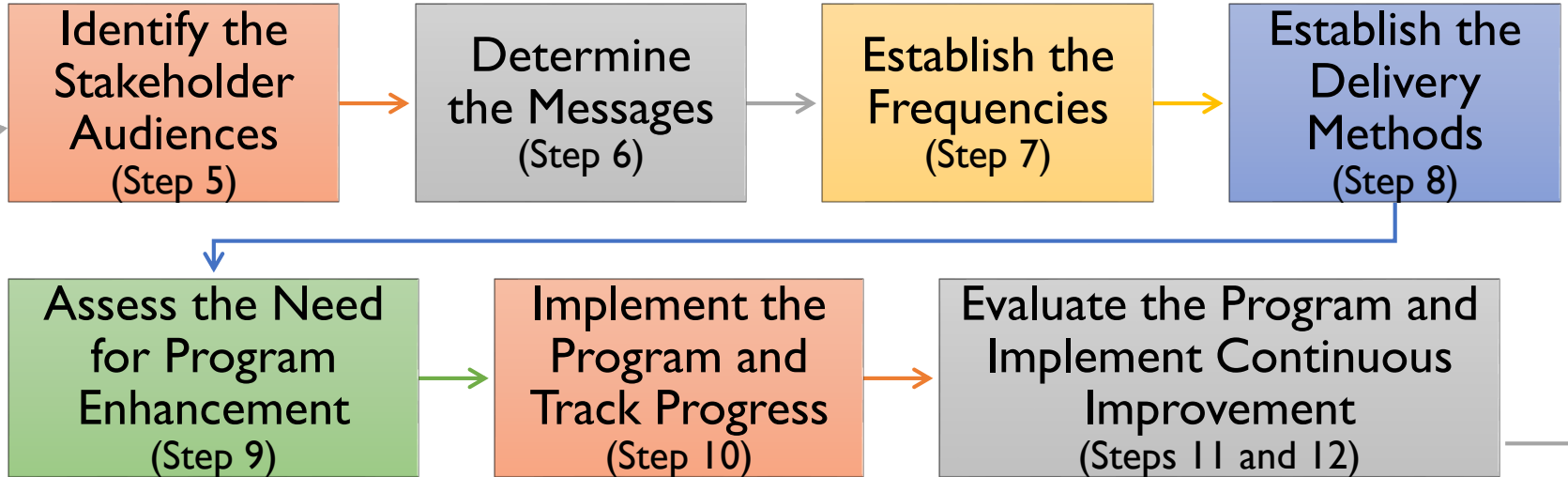
Public Awareness Applicability

- The public awareness message must include:
 - A description of the purpose and reliability of the pipeline
 - An overview of the hazards of the pipeline and prevention measures used
 - Information about damage prevention
 - How to recognize and respond to a leak
 - How to get additional information

Operators of a master meter or
petroleum gas systems

Establish Public Awareness
Program Administration
with Management Support
(Steps 1 — 4)

Program Development Process



Public Awareness Audience

Defined in Section 3 of
RP 1162

Audience includes:

- Affected public – residents along or near the pipeline
- Emergency Officials
- Local Public Officials
- Excavators/Contractors
- Land Developers
- One-Call Centers

Public Awareness Message

- Major Requirements for communications
 - Message type
 - Specific for each target audience
 - Delivery frequency
 - Appropriate for audience
 - Delivery methods or media
 - Delivered in an effective manner



Reference: Table 2-1 - Summary Public Awareness Communications for Hazardous Liquids and Natural Gas Transmission Pipeline Operators RP 1162

Public Awareness Message

Generic messages may not
convey all the required
information



Public Awareness Message

The communications should include enough information so that in the event of a pipeline emergency, the intended audience will know how to:



Public Awareness Message

- identify a potential hazard
- protect themselves
- notify emergency response personnel and
- notify the pipeline operator



Message Delivery

Brochures, Flyers, Pamphlets, and
Leaflets

Letters

Pipeline Maps

Response Cards

Bill Stuffers

PERSONAL CONTACT

Videos and CDs

E-mail

Message Delivery

Public Service Announcements

Newspapers And Magazines

Paid Advertising

Community And Neighborhood
Newsletters

Informational Or Educational Items

Pipeline Marker Signs

One-call Center Outreach

Operator Websites

Records

§192.616/ §195.440

(h) ...Upon request, operators must submit their completed programs to PHMSA or, in the case of an intrastate pipeline facility operator, the appropriate *State* agency.

(i) The operator's program documentation and evaluation results must be available for periodic review by appropriate regulatory agencies.

Records

§ 192.603

Each operator shall keep records necessary to administer the procedures established under §192.605.

Records

§ 195.402/§ 192.605



... The manual required by paragraph (a) of this section must **include** procedures for the following to provide safety during maintenance and normal operations...

Keep for 5 Years Minimum

- Lists, records or other documentation of stakeholder audiences with whom the operator has communicated.
- Copies of all materials provided to each stakeholder audiences.
- All program evaluations, including **current** results, follow-up actions **and expected** results.



Evaluating Program Effectiveness

Primary purposes to:

- Assess if the current program is effective in achieving the objectives
- Provide information on implementing improvements based on the findings

Secondary purpose:

- Demonstrate the status and validity of program

Elements of Evaluation Plan

- Measures should reflect:
 - Whether the program is being implemented as planned (the process)
 - Whether the program is effective (program effectiveness)



Measuring Program Implementation

Appendix E

- Purpose, answer two questions:
 - Written to address the objectives, elements, and baseline schedule?
 - Implemented and documented according to the written program?



Measuring Program Effectiveness

- Assess progress on measures to see if goals were achieved:
 - Is information reaching the intended stakeholder audiences?
 - Do the recipient audiences understand the messages delivered?



Measuring Program Effectiveness

- Are the recipients motivated to respond appropriately in alignment with the information provided?
- Is the implementation of the public awareness plan impacting bottom line results
 - (reducing incidents, third party hits, etc.) ?





Measure 1 Outreach

- **Percentage of Each Intended Audience Reached With Desired Messages**
 - Track percentage reached within an intended audience (households, excavators, local government, first responders, etc.)
 - How much of the targeted audience was actually reached? (Percentage)
 - Measure will help to evaluate delivery methods

Measure 2



- Understandability of the Content of the Message
 - Looks at the percentage of the intended stakeholder audience that understood and retained the key information in the message received



Measure 2 Understandability of the Content of the Message

- Pretest materials:
 - Pretest public awareness materials for appeal
 - Pretest messages for clarity, understandability and retain-ability before they are widely used
- Pretest may be performed using a small representative audience or focus group (Sample surveys are in Appendix E)

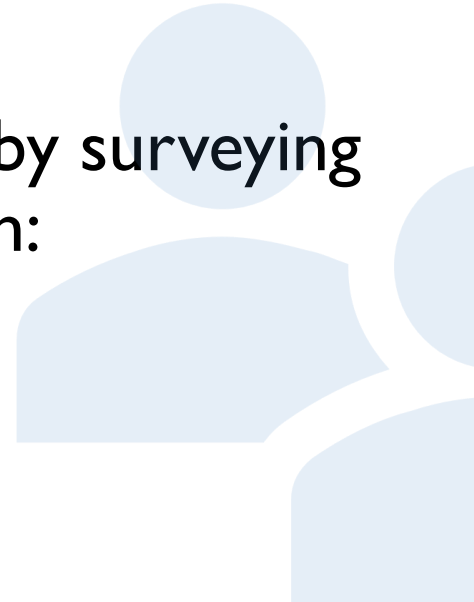


Measure 2 Understandability of the Content of the Message

- Survey target stakeholder audiences:



- Assess how much is understood by surveying the target stakeholder audience in:
 - face-to-face contacts,
 - telephone or
 - written surveys



Measure 2 Understandability of the Content of the Message

- Factors to consider when designing surveys include:
 - Appropriate sample size to draw general conclusions
 - Questions to gauge understandability of messages and knowledge of survey respondent
 - Retention of messages
 - Comparison of most effective means of delivery





Measure 3 Desired Behaviors by the Stakeholder Audience

- Measure
 - Were appropriate prevention behaviors learned? and
 - Were appropriate response or mitigation measures would or have taken place?
- Baseline Evaluation:
 - The survey conducted to assess Measure 2 (understandability of the content of the message) should be designed to include questions that ask respondents to report on actual behaviors following incidents

Measure 3 Desired Behaviors by the Stakeholder Audience

- Supplemental evaluation:
- Operators may also want to assess whether their public awareness program has successfully driven other behaviors





Measure 3 Desired Behaviors by the Stakeholder Audience

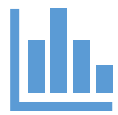
- Are excavators following through on all safe excavation practices?
- Was there an increase on the number of notifications received from the One Call Center after distribution of public awareness materials?
- An assessment of first responder behaviors:
 - were their actions consistent with the key messages in the public awareness communications?

■ ■ Measure 3 Desired Behaviors by the Stakeholder Audience

- Supplemental evaluation:
 - Assessments of actual incidents should recognize that each response would require unique on –scene planning and response to specifics of each emergency

■ ■ Measure 3 Desired Behaviors by the Stakeholder Audience

- Measuring the appropriateness of public stakeholder responses could include:
 - tracking whether an actual incident that affected residents was correctly identified and
 - whether reported and personal safety actions undertaken were consistent with public awareness communications

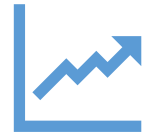


Measure 4 Achieving Bottom-Line Results

- Data regarding third party excavation damages should be evaluated over a relatively long period of time to determine any trends applicable to the operators public awareness program
- One other measure an operator may consider is the affected public's perception of the safety of pipelines

Measure 4 Achieving Bottom-Line Results

- The change in the number and consequences of third party incidents is one measure of bottom line results.
- Track the number of incidents and consequences caused by third party excavators
- The tracking of leaks caused by third party excavation should be compared to statistics of pipelines in the same sector



EVALUATION PROCESS

Evaluation Approaches	Evaluation Techniques	Recommended Frequency
Self Assessment of Implementation	Internal review	Annually
Evaluation of effectiveness of program implementation: <ul style="list-style-type: none">• Outreach• Level of knowledge• Changes in behavior• Bottom-line results	Survey operator-designed and conducted survey	No more than four years apart.
Implement changes to the PAP	Responsible person as designated in written PAP	As required by findings within 12 months of evaluation

Evaluation Methods

Operator designed and conducted survey

Use of predesigned third party or industry association survey

Trade association survey segmented by operator, state, or other relevant means to allow operator specific results.

Evaluation Methods

Questionnaires distributed as an individual document or “bill stuffer.”

Personal or telephone interviews.

Interview panels comprised of a broad sample of the general public (e.g., customers, local officials, excavators, persons living near pipelines).

Continuous Improvement Ideas

- Tracking information
 - Query data in meaningful way?
 - One call tickets, particularly by caller type
 - Excavators and one call tickets
 - Number of hits declined?
 - Calls to monitoring center

Continuous Improvement Ideas

- Tracking information
 - Repeat offenders for hits
 - Repeat offenders for excavations without a valid one-call ticket
 - Bad locate tickets
 - Changes to mailing lists



Document

Document and

Document some more

Document

- Follow up actions to data and analysis
 - Include other activities that exceed RP 1162 baseline activities such as:
 - Planning meetings
 - Landowner contacts and meetings
 - Other interactions
 - Required by Emergency Planning, Damage Prevention, and Integrity Management



Document

- Supplemental Activities or enhancements
- High Consequence areas
- Population density
- Land development activity
- Pipeline history
- Local conditions
- Complete list of considerations in Section 6.2 of current RPI 162





U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration



Questions?

