



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



Public Awareness Program Effectiveness Inspection Observations



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PHMSA
Office of Pipeline Safety



Observation Disclaimer

The following slides in this presentation summarize observations from recent inspections. The lists include actions that are acceptable under the pipeline safety regulations and some that are not acceptable. PHMSA does not necessarily endorse all of the actions listed in the following slides.



Regulatory Requirement

“...each pipeline operator must develop and implement a written continuing public education program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162.”

§ 192.616 Public Awareness (Natural Gas or Other Gas)

§ 195.440 Public Awareness (Hazardous Liquids)

API RP 1162 (1st edition, December 2003)





Public Awareness Objective

- Promote the use of One-Call notification system prior to excavation
- Educate stakeholders about:
 - Possible hazards associated with unintended releases from pipeline facility
 - Physical indications of a pipeline release
 - Public safety measures in the event of a pipeline release
 - Procedures to reporting a pipeline release



PAP Inspection Updates

- Finalized documented published online:
 - PAP Effectiveness Inspection Form
<http://www.phmsa.dot.gov/pipeline/library/forms>
 - PAP Enforcement Guidance Document
<http://www.phmsa.dot.gov/foia/e-reading-room>
- Federal PAP Inspections will continue through CY 2012
- States are also incorporating PAP inspections into their inspection plans



Public Awareness Effectiveness Inspections

How effective is the operator's public awareness program?

- Collecting data is not the only component to completing an effectiveness evaluation.
- Operator effectiveness evaluations should:
 - Identify program metrics
 - Describe evaluation methodology
 - Summarize findings or conclusions
 - Identify changes in written plan and/or implementation



Sections Covered

- Section 1: Written Public Education Program
- Section 2: Implementation
- Section 3: Annual Audits
- Section 4: Effectiveness Evaluations



1.01 Written Public Education Program

- Written program existed in many instances that:
 - Described who, what, when, where, how, why
 - Provided enough detail for company personnel to understand what's occurring
 - Tailored to specific organizational needs
 - Linked to actions implemented
- Some smaller operators did not have written PAPs
- Made only minor changes to the written PAP since 2006
- Cross referenced to other company procedures such as:
 - Emergency response plans
 - Integrity management plans



1.02 Management of Support

- Statement of commitment
 - Some with/without a name
 - With/without signatures or current dates
 - Some updated as company personnel transitions
- Generally has sufficient personnel and resources committed
- Some with document management systems (others exploring technologies available)
- Video of executive support shared with new employees



1.02 Management of Support

- Clarified roles and responsibilities
 - Key personnel
 - Management/decision makers
- Some operators leveraged field personnel to implement
- Use of third parties support:
 - Operators responsible for PAP compliance
 - Used for direct mailings, public meetings, evaluations, advertising/television/radio ads/evaluations, etc.



1.02 Management of Support

- Customized services to meet operator needs
- Varying degrees of program oversight:
 - Areas of concern (vendor management):
 - Mailing list accuracy (during vendor transitions)
 - New developments/construction
 - Returned or undeliverable mailing follow-up
- Outlined specific vendor needs/requirements



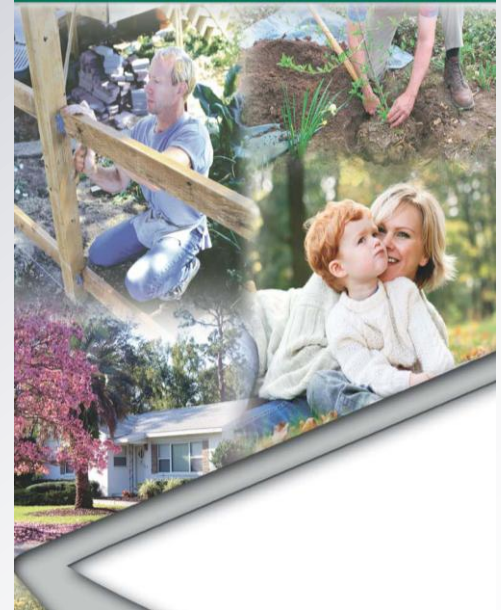
1.03 Unique Attributes & Characteristics

- Specific & unique attributes not listed or specific in some cases:
- May be missing one or many of the following:
 - System type
 - Types of products (i.e. LNG)
 - Lines and/or facilities covered
 - Odorized/unodorized
 - All company assets/facilities covered
- Single system operators seem to do a better job of defining assets covered than multisystem operators



1.04 Stakeholder Audience Identification

- Inspectors checked to verify:
- Stakeholder audiences definitions and lists
- Understand specific methodology used to identify stakeholders
- Some examples of stakeholder sources:
 - geographic information system (GIS)
 - standard industrial codes (SIC)
 - geocoded databases
 - shape files
 - census data
 - asset county information
 - contractor beware codes





1.04 Stakeholder Audience Identification

- Examples of defined buffer/tolerance zones (Affected Public):
 - PIR > 660'
 - HCAs
 - Special permits
 - 1,000' buffer for Highly Volatile Liquids
 - ¼ mile (1320') from centerline on each side of the pipe
- Provided evidence of mailings sent out
- Tracked public meeting attendance since 2006 and followed up with those who did not attend regularly



1.04 Stakeholder Audience Identification

- Kept a record of sent messages/print material
- Lacked definition how returned mail be handled (return address not always included)
- Few analyzed total mailings trends from year to year
- Lacked process for verifying mailing list QA/QC
- Lacked process to follow up on non-attendance from meetings
- Plans did not address new stakeholders between mailings:
 - New developments
 - Holes in mailing list
 - Migrant populations/rentals



1.05 Message Frequency & Delivery

- Followed baseline frequency requirements
- Some increased baseline frequency:
 - Public Officials (annually instead of every 3 yrs)
 - Affected public (increased to every year after incident, 2000' buffer)
- Provided general descriptions of delivery methods in written program
- Did not identify one-call requirements in written plans



1.06 Written Evaluation Plan

- Identified annual audit and effectiveness methodologies in plan
- Effectiveness evaluations lacked written process/procedure
- Defined (varied) metrics for activities
- Tracked performance metrics each year to support effectiveness review
- Used different evaluation approaches
- Most did not have a formal guidance document or template to guide efforts



2.01 English and Other Languages

- Specified decision making criteria (varied); but not well-documented in written program
- Commonly provided in Spanish (as default)
- Examples of sources for determining need for other languages:
 - census data
 - county courthouse records
 - school records
 - hospital records
 - field personnel
 - focus groups
 - distribution call center data



2.01 English and Other Languages

- Outreach provided in multiple languages (posters, websites, ads)
- Used a study group to verify Spanish message understandability (not academic Spanish)
- Provided in English (Spanish default second language)
- Emergency Response Officials and Public Official (English only)
- (800) Translation number provided on print material
- TDD/TYY (speech - hearing impaired number on print material)
- Used customer billing information to identify other languages



2.02 Message Type and Content

- Specific and collaborative messages used:
 - Generic messages may lead to confusion
 - Acceptable if:
 - Baseline requirements still met (each stakeholder audience)
 - Specific to operator's pipeline system/unique attributes (i.e. odorized line?)
 - Specified product types
- Smaller operators had more face to face conversations
- Other operators leveraged field personnel



2.02 Message Type and Content

- Pipeline marker information (specific to operator/product)
- Generic pipeline marker pictures shown in print material
- Some inspectors called operator emergency number to observe:
 - how it was answered
 - correct # on print material
 - identify operator name
- An operator put a direct PAP number on print material to Public Awareness Program Manager



2.03 Messages on Pipeline Facility Locations

- Provided messages to residents near pipeline facilities:
 - Compressor stations, pump stations, breakout tanks, LNG facilities, storage tanks)
 - Schools/school districts (not always specified in plan)
 - Municipalities
 - Businesses
- Some messages were not operator specific enough
- Inspectors checked stakeholder lists to make sure covered



2.04 Baseline Message Delivery/ Frequency

- Examples of delivery approaches observed:
 - Email/Websites
 - Brochures
 - Bill stuffers
 - Newspapers/Magazines
 - Meetings
 - Public service announcements (for LDC)
 - Calendars (some/all stakeholders)
 - Face to face (excavators)



2.04 Baseline Message Delivery/ Frequency

- Examples of operator specific conditions that change frequency
 - HCAs
 - Special permits
 - Alternate MAOP
 - Incidents/accidents
 - 3rd party damages
 - Near misses
 - Stakeholder feedback
 - Field personnel feedback
 - Line hits



2.05 Considerations for Supplemental Enhancements

- Operators generally implemented some supplemental activities (although not always documented)
- Some regional operator personnel conducted supplemental activities but either poorly documented it or failed to communicate it to operator's head quarter office
- Examples of supplemental observed during inspections included:
 - Tracking excavators who hit line or dig without one-call ticket



2.05 Considerations for Supplemental Enhancements

- Increased message delivery frequency to stakeholders
- Messages in multiple languages
- Website, magazines, posters
- Emergency # translates to other languages (Spanish, French, Japanese, Russian, Korean, Arabic, etc)
- 24 hour public awareness phone #
- Agricultural mailings
- Scratch and sniff NG cards
- ER website portal to get operator specific information (capabilities across the state)
- ER training



2.05 Considerations for Supplemental Enhancements

- First Responder Portal
- County fairs
- Bumper Stickers
- Children campaigns
- Public service announcements
- Newspapers
- Magazines
- Barbeque for excavators
- \$25 store gift card for reply back responses
- ROW agents distributed door stuffers to Apartment complexes



2.06 Maintaining Liaison with Emergency Response Officials

- Collaborative operator public meetings with multiple operators and counties (limited specific operator interaction)
- Different interpretations of defining maintaining liaison noted
- Some operators participated with/invited ER Officials in emergency exercises and drills
- Some operators offered facility tours/open houses
- Provided relevant/specific information from ER plan (others waited for ER officials to ask for the plan)
- Inconsistent information sharing from ER plan
- Operators unclear on appropriate level of information to share



2.06 Maintaining Liaison with Emergency Response Officials

- Some operators:
 - Tracked who attended meetings and sent out follow-up information to those not in attendance
 - Tracked low attendance on years and followed up on trends of ER officials not attending
 - Verified ER lists for accurate contact information (others had missing and incorrect information)
 - Sent invitation letters to ER Officials
 - Track responses and participation
 - Generic information sent that may not motivate ER Officials to attend



3.01 Measuring Program Implementation (Annual Audits)

- Some operators:
 - Implemented during calendar year, budget year, implementation year
 - Documented meetings, dates, participants, agenda
 - Met with cross-functional review teams (or silos)
 - Monitored metrics
 - Combined annual audit & effectiveness evaluation in year 4
 - Linked timing and review with other programs:
 - Integrity management
 - Emergency response



3.02 Acceptable Methods for Program Implementation Audits

- Some operators:
 - Used one of three annual audit methods:
 - internal self-assessments
 - third party audits
 - regulatory inspections
 - Obtained evaluation feedback:
 - Phone/online surveys/questionnaires
 - One-call center data
 - Response cards
 - Website hits
 - Emergency call number
 - Incidents



3.03 Program Changes and Improvements

- Changes/documentated tracked
- Implemented changes in next year cycle
- Verified adequate resources were available
- Updated written plan
- Changed implementation activities/frequencies
- Obtained current management support
- Reviewed supplemental enhancements
- Changes to print material



4.01 Evaluating Program Effectiveness

- Involved more than just collecting data
- Wide variety of effectiveness approaches taken:
 - Some looked across each stakeholder group, product types, geographic areas
 - Others grouped all stakeholders into one assessment
 - Collected baseline data since 2006, understand trends
 - Performed industry surveys/independent surveys



4.01 Evaluating Program Effectiveness

- Some operators:
 - Took advantage of data collected over various years delivery methods:
 - Web hits
 - Training assessments
 - Reply/bounce back cards
 - One call ticket data
 - Documented phone conversations
 - Near miss notifications
 - Dig-ins
 - Line hits



4.02 Measure Program Outreach

- Outreach sample sizes and % limits defined by the operator (in some cases)
- Typical sample size of survey participants ranged from (~150-400 with 95% confidence level)
 - 400 for all stakeholders (not each audience group)
- Assessments varied across:
 - across stakeholder groups
 - Product types
 - Pipeline assets
- Used phone surveys, questionnaires, reply or bounce back cards, and company specific data



4.03 Measure Percentage Stakeholders Reached

- Unclear measures for assessing stakeholders reached
- Operators not always tracked returned/undelivered mail
- Poor follow-up on undelivered mail
- Reply back cards:
 - Varied response rates
 - Less than .001%-0.33% response rate (Operators struggle)



4.04 Measure Understandability of Message Content

- Pre-testing materials:
 - Focus groups
 - In house personnel
 - Industry groups
- Initially pre-tested in 2006, but not when other changes occur
- Bottom-line results as indicator
- Messages in various languages
- Training assessments (i.e. ER group)



4.05 Measuring Desired Stakeholder Behavior

- Struggling to understand how to measure (i.e.)
 - One-call data
 - Web hits
 - Calls to operator
 - Near misses



4.06 Measuring Bottom-Line Results

- Defined bottom-line metrics?
- Varying approaches
 - Near misses
 - Line hits
 - Web hits
 - Public awareness phone # logs
 - One call ticket volume changes (economic changes?)



4.07 Program Changes & Improvements

- For the most part, there appears to be a constant effort to make improvements
- Found the operator do not always document or record why they made changes
- Captured changes in written program should be
- Develop a tracking process or summary sheet for changes (recommendation)



Documentation

- Some PAPs are copied from API RP 1162 (not very specific)
- Documentation to support activities and findings
- Activities were included in the PAP but rationale driving activities were lacking (handling return mailings, evaluations, etc)
- Specifying rationale for decisions/supplemental activities



Conclusion

- Most operators putting forth effort and improving programs with creative approaches
- Process/methodology improvements are needed with annual audits/effectiveness evaluations
- Motivating stakeholders to stop, listen, and change
- Balancing information overload with specific messages

**Continuous Improvement Efforts
Are Not In Vain!**



Stakeholder Communications Site

PHMSA Stakeholder Communications: Land Use ...

Stakeholder Communications

Home | General Public | Local Officials | State Regulators | Federal Agencies | Emergency Officials | Advocates | Industry | Excavators

Print

Public Awareness Programs

PHMSA, the pipeline industry and other stakeholders continue working to improve the outreach and effectiveness of public awareness programs.

Federal pipeline safety regulations require pipeline operators to conduct continuing public awareness programs to provide pipeline safety information to four stakeholder audiences, including:

- affected public,
- emergency officials,
- local public officials, and
- excavators.

Regulatory Requirements

Federal pipeline safety regulations (49 CFR 192.616 and 49 CFR 195.440) require pipeline operators to develop and implement public awareness programs that follow the guidance provided by the American Petroleum Institute (API) "Public Awareness Programs for Pipeline Operators" (incorporated by reference in federal regulations). [More...](#)

API Recommended Practice 1162

API RP 1162 is an industry consensus standard that provides guidance and recommendations to pipeline operators for enhanced public awareness programs. It addresses various elements of such programs, including the intended audience to be communicated, frequencies and methodologies for communicating the information, and evaluation of the programs for effectiveness.

Public Awareness Program Workshops

PHMSA sponsored a public workshop on effectiveness evaluations of pipeline operator public awareness programs in 2008 and co-sponsored workshops in 2005 and in 2003 to help pipeline operators develop effective public awareness programs. [More...](#)

Inspection and Enforcement Documents

As part of our continuous improvement approach for inspecting pipeline operator public awareness program effectiveness...

Public Awareness
Regulatory Requirements

API Recommended Practice
API RP 1162
API RP 1162 Summary Tables

Briefing Sheet

Workshops

Inspection Observations

FAQs

Downloads
API RP 1162
Inspection Form
Enforcement Guidance (Gas, 49 CFR 192)
Enforcement Guidance (Liquid, 49 CFR 195)

Site Pages
Pipeline Basics
Safety Standards
Inspection
Enforcement (PHMSA)
Enforcement (States)

<https://primis.phmsa.dot.gov/comm/>



Useful Links

- **PHMSA Website:**

<http://www.phmsa.dot.gov>

- **Public Awareness Inspection Form 21:**

<http://www.phmsa.dot.gov/pipeline/library/forms>

- **Public Awareness Enforcement Guidance:**

<http://www.phmsa.dot.gov/foia/e-reading-room>

- **Public Awareness Stakeholder Communications:**

<https://primis.phmsa.dot.gov/comm/PublicAwareness/PublicAwareness.htm>



Questions



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Thank you!