Welcome

Workshop on Public Awareness Programs for Pipeline Operators

Day 1, Session 2

Co-Sponsors

American Public Gas Association

American Gas Association

INGAA

American Petroleum Institute

AOPL

Office of Pipeline Safety
Research & Special Programs Administration

NAPSR

Public Awareness Messages

Step 6

Public Awareness Program Workshop

Gary Panebianco
Niagara Mohawk –
A National Grid Company

Public Awareness Messages

Step 6 – Determine message type and content for each audience

Messages should allow operator to meet program objectives:

- Raise public awareness of pipelines
- Prevention and response (identify hazards, protection, notification to responders)

➢ Public awareness- educate stakeholders on pipeline presence in their environment

Public Awareness Messages

Other information that should be considered:

- Pipeline's role in supplying energy
- Pipeline efficiency and reliability
- Overall positive safety record
- Individual operator's safety and environmental record

For LDC's:

- Infrastructure overview
- How to recognize a leak through odor
- Natural gas uses

Public Awareness Messages

- Prevention – general information of hazards and prevention measures taken:
  - Typical causes of pipeline failure
  - Potential consequences of product release
  - Overview of operator's programs to prevent and mitigate failures
  - Optional summary of industry's record

More specific information should be provided to emergency responders.

Public Awareness Messages

- Response – leak recognition and appropriate action

Consider using standard or generic trade association materials as aids, however specific product and pipeline information should also be provided:

- Specific hazard consequences with accidental release
- Recognizing a pipeline leak by sight, sound or smell
- What to do/ what not to do if a leak is suspected
- Continuing liaison with emergency officials

Public Awareness Messages

- Message content for emergency responders:
  - Operator's priority to protect life, property and environment
  - Operator's local office and 24-hour emergency phone line
  - Emergency response plans
  - Information gathered through emergency drills and exercises

Public Awareness Messages

- Damage prevention messages – all stakeholders

  Messages should be consistent with Common Ground Alliance's, including:
  - What the One-Call notification system is and how it operates
  - How to contact One-Call, including phone numbers
  - One-Call is a free service to excavators
  - Requesting locations may be the law in their state with legal penalties applicable

- Dig Safely's messages should also be included:
  - Call One-Call before digging
  - Wait for site markings
  - Respect the marks
  - Dig with care

Public Awareness Messages

- Pipeline Location Information – all hazardous liquid or natural gas transmission stakeholders.
- All audiences should be able to identify rights-of-way by markers.
- In addition to applicable federal and state regulations, markers should:
  - Indicate pipeline ROW
  - Identify product transported
  - Name of pipeline operator and 24x7 emergency phone #
  - Be colored bright and visible
  - Include “warning petroleum pipeline” or “warning gas pipeline” with universal “No Dig” symbol
  - Provide One-Call number

Public Awareness Messages

Transmission Pipeline Mapping:

- Level of detail relevant to stakeholder's need, considering security issues.
- General public should be made aware that pipeline operators in their community can be found by accessing National Pipeline Mapping System on internet.
- Operators should make available system maps to affected public and how to obtain more specific locations.
- Local maps should be made available to public officials and emergency responders.
- Digitized or paper local maps need to be available to the regional One-Call Center if required.

Public Awareness Messages

High Consequence Areas and Integrity Management Program Plans for Transmission Pipelines.

Messages to affected public, local officials and emergency responders should include how and where to obtain more information about HCAs and IMP plans.

An overview of the operator's integrity plan should be included in the information sent to emergency officials.

Public Awareness Messages

A two-way dialogue on HCAs between the operator and the affected emergency responders is recommended to disseminate information such as :

- Specific site conditions
- Staging areas, etc.

Public Awareness Messages

- Company Website Messages

  Content should include:

  - Operator and owner name
  - Region and market served
  - General office and emergency phone numbers
  - Product transported
  - System or general map of transmission system and key office location
  - Information on how to obtain more detailed mapping
  - Summary of public awareness program
  - Summary of operator's emergency preparedness
  - How the affected public can recognize, protect and respond to a pipeline emergency
  - Damage prevention information

Public Awareness Messages

- Right-of-Way Encroachment Prevention

Messages to the affected public, local officials and excavators should raise awareness about dangers of encroachment, such as:

- Right-of-way surveillance
- Accessibility for planned and unplanned maintenance
- Third-party damage

Local public officials should be made aware that zoning and land use requirements/ restrictions can be an effective deterrent against encroachment.

Public Awareness Messages

- Pipeline Maintenance Activities
  - Maintenance that could affect any stakeholder should require advance notification by the operator
  - Any major maintenance planned by the operator should be communicated by the operator to the affected public, local officials and emergency responders

Public Awareness Messages

- Security

Operators should include information in their communications pertaining to security where applicable.

Information could include:

- General information about security measures
- Increased public awareness about security
- Guidance to the public on recognizing suspicious or unauthorized activity on facilities in their neighborhood

Public Awareness Messages

- Facility Purpose

  Communication to the affected public, local officials and emergency responders should include general information and purpose about major facilities in their proximity, such as:

  - Storage facilities
  - Compressor or pump stations
  - Product(s) stored or transported

Public Awareness Messages

- Message Documentation

  All individual messages distributed to any of the key stakeholders should be documented and retained by the operator as found in:

  - Mailed letters
  - Bill stuffers
  - Public announcements
  - Meeting minutes
  - Paid advertisements
  - Website
  - Brochures
  - Other medians

Delivery Frequency and Methods

Steps 7 & 8

Public Awareness Program Workshop

Ron Embry
ExxonMobil Pipeline Company

Delivery Frequency

- Baseline frequencies for each audience contained in Table 2 of RP 1162
  - Table segmented into guidance for each type of pipeline operator
  - Baseline is the recommended maximum interval between successive communications
  - Specific circumstances may indicate more frequent communications (supplemental)

Baseline Frequency Considerations

- What are the risks this audience potentially faces as a result of the pipeline?
- How important is this audience in managing public and pipeline safety?
- How fast will this particular audience change?
- How important is repetition to this audience?

Public Officials' Views on Frequency

- Focus group meetings conducted in February 2002 with area public officials in Pittsburgh, Chicago, Dallas, and Los Angeles
- 97 participants
  - 43% fire/police/sheriff
  - 12% hazmat/environ/emerg mgmt
  - 13% highway/school/planning
  - 30% other

Public Officials' Views on Frequency

- How frequently should communications occur when there are no significant changes in activities or plans?
  - 71% said annually or quarterly
  - 11% said monthly or more frequently

Baseline Frequencies

Audience

Pipeline Type⬇	Residents & POC	Emergency Officials	Public Officials	Excavators & Contractors	One Call Centers	LDC Customers
HL & Gas Transmission	2 Years	Annual	3 Years	Annual	Requirements of One Call Center	--
LDCs	Annual	Annual	3 Years	Annual	Requirements of One Call Center	Twice Annually
Gathering Lines	2 Years	Annual	3 Years	Annual	Requirements of One Call Center	--

Supplemental Frequencies

- Are there extenuating factors that make more frequent communication advisable?
- If so, operator should communicate more often
- Subject of next presentation

Follow-up on Frequency Selection

- Operator should document rationale on frequency adopted for each audience
- Operator should periodically consider what factors have changed in relation to appropriate frequency
- Update frequencies as appropriate

Communications Methods

- Evaluate the audiences to determine the method(s) most appropriate to the needs
  - Rural versus urban
  - High versus low population density
  - Other sensitive receptors in area
  - Availability/receptivity of the audience to various methods

Communication Methods

- Factors in choosing methods (continued)
  - Vulnerability of the audience
  - Capability to receive/view a message delivered via a selected method

Methods for Consideration

- Targeted distribution of printed materials
  - Brochures, flyers, pamphlets, leaflets
  - Letters
  - Pipeline maps
  - Response cards
  - Bill stuffers

Methods (continued)

- Personal contact
  - Door to door
  - Telephone
  - Group meetings
  - Facility open houses
  - Community events
  - Charitable contributions
  - Emergency response drills

Methods (continued)

- Electronic
  - Videos/CDs
  - E-mail
  - Websites
- Mass media
  - PSAs on TV/radio
  - Newspapers/magazine articles
  - Paid advertising
  - Community and neighborhood newsletters

Methods (continued)

- Specialty advertising materials
- Collaboration with One Call Centers
- Collaboration with other interested stakeholders

Supplemental Methods

- For special situations, an operator may enhance the communication by:
  - Increased frequency
  - Multiple methods
  - Expanded audience or coverage area
- When and how the subject of next presentation

Continuous Improvement

- Operator to evaluate frequencies and methods and change them based on:
  - Changing conditions
  - Conclusion that better methods/frequencies meet the audience needs better
- Documentation of program absolutely necessary to enable continuous improvement

When Should An Operator Supplement Its Public Awareness Program?

Step 9

Public Awareness Program Workshop

Molly Atkins
El Paso Pipeline Group

When Should an Operator Supplement Their Public Awareness Program?

- Considerations
- Approach
- Methods

Considerations

API RP 1162, Section 6
Relevant Factors

- Pipeline conditions
- Population, HCA's, sensitive areas
- Development, land use, excavation
- Operating history and experience
- Feedback and continuous improvement

Approach

- Modify Frequency
  - Seasonal or event-driven activities
  - High turnover areas
  - Development and land use changes
- Enhance Message Content or Delivery
  - Message not reaching the audience
  - Additional information necessary
  - HCA Communications (i.e. identified site information from public safety officials)
  - Tailor to the needs of the audience
- Modify Coverage Area

Methods

- Message
  - Overview of Integrity Management Plan
  - Planned construction/maintenance activity
  - HCA designation
  - Additional information specific to product, location, or response procedures unique to operator's pipeline
- Frequency
  - Seasonal/event-driven
  - Increased frequency
- Activity
  - Additional contact or group meetings
  - Additional methods of delivering message

Panel Members

- Molly Atkins, El Paso Pipeline Group
  - Pilot Project: Assessment and Implementation of API RP 1162 Requirements
- Tony Franchina, Shell Pipeline Company
  - Supplementary Practices
- Phil Bennett – American Gas Association
  - Questions & Answers

Assessment and Implementation of API RP 1162 Requirements

Case Study

Public Awareness Program Workshop

Molly Atkins
El Paso Pipeline Group

El Paso Pipeline Group
Pilot Project

Assessment and Implementation of
API RP 1162 Requirements

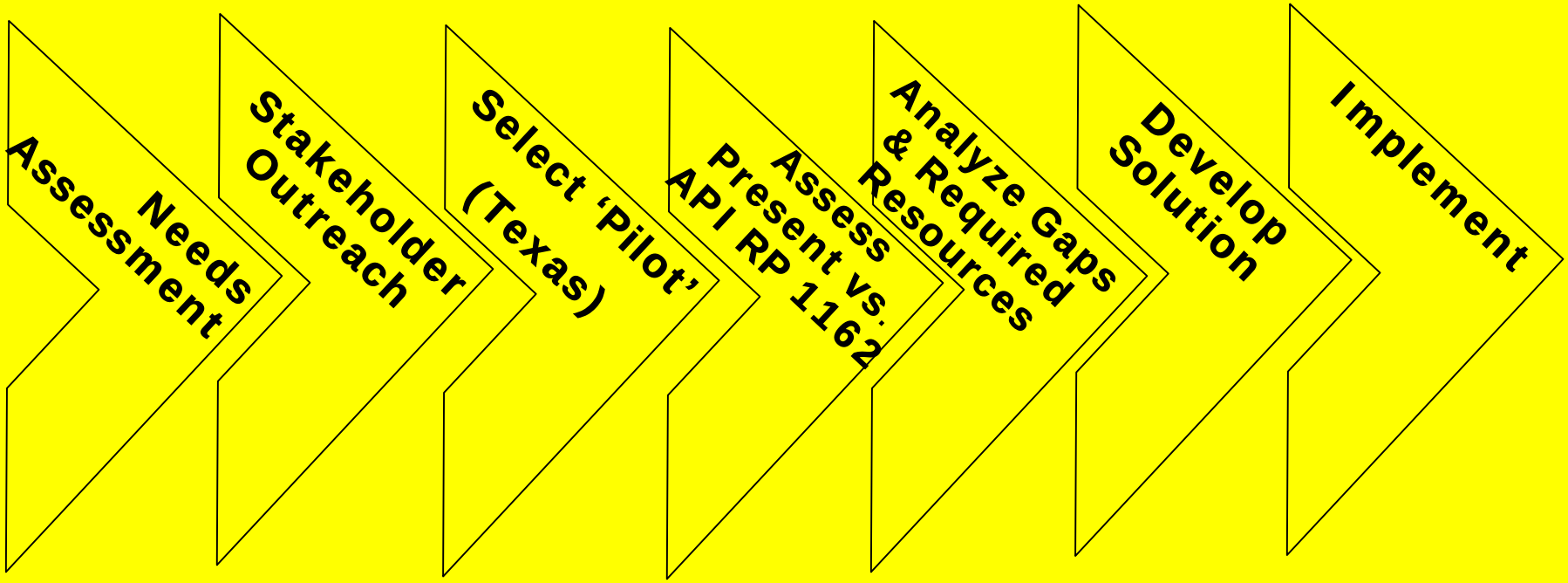
- **The Issues**
- **Approach**
- **The Needs**
- **Interfaces**
- **Benefits**

The Issues

API RP 1162, “Public Awareness Programs for Pipeline Operators”

- Expands El Paso’s audience of those who must be contacted
- Increases data and documentation management to demonstrate compliance
- Requires measurement of effectiveness of Public Awareness Program activities

Approach


Needs Assessment
Stakeholder Outreach
Select 'Pilot' (Texas)
Assess Present vs. API RP 1162
Analyze Gaps & Required Resources
Develop Solution
Implement

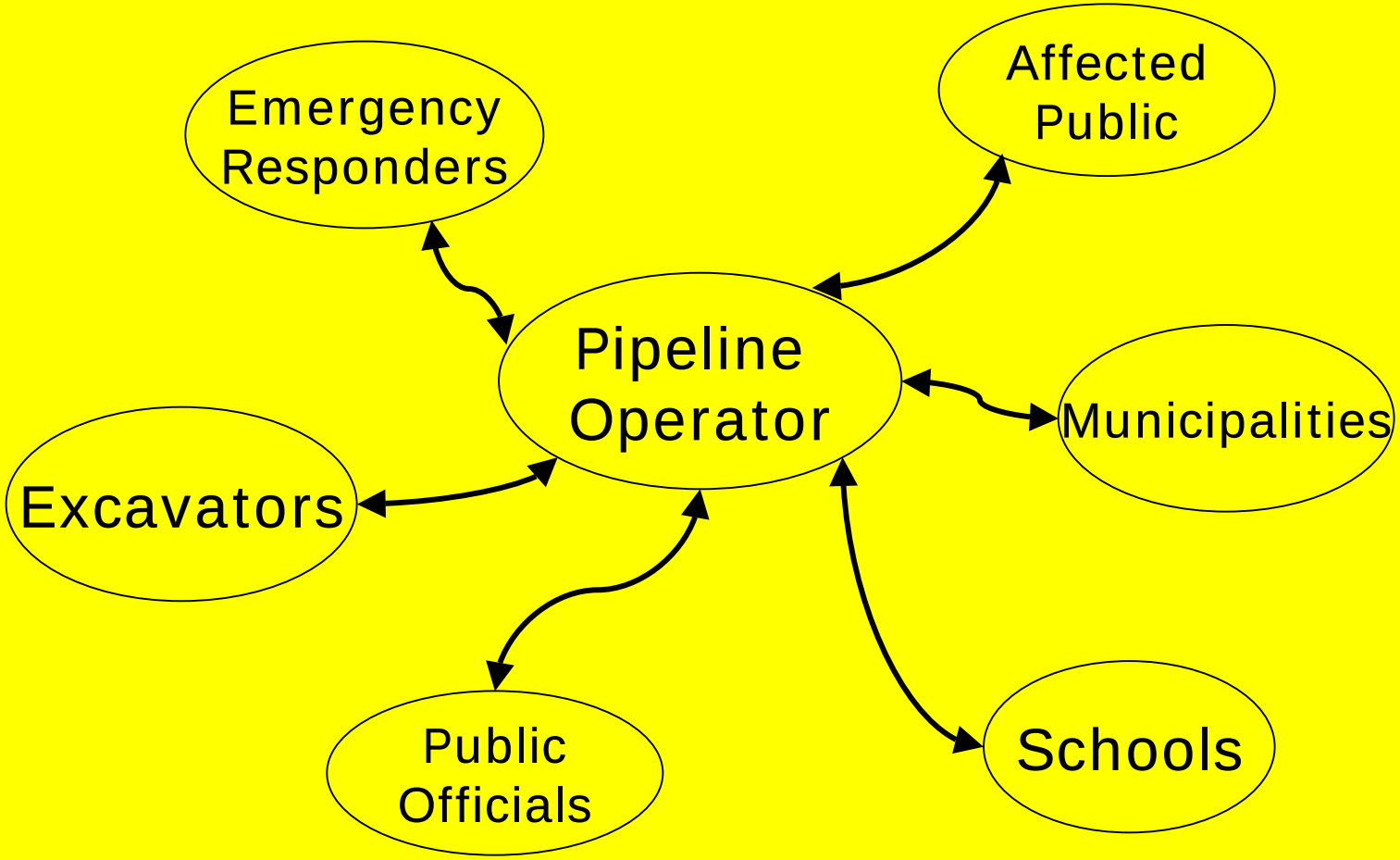
The Needs

- Identify and Manage Contact Information
  - Government Officials, Emergency Responders
  - Schools, Municipalities, General Public
  - Excavators
- Share Information (Operator/Stakeholder)
  - Understand each other's capabilities/needs
  - Plan for mutual assistance
  - HCA Communications (i.e. identified site information from Public Safety Officials)
  - Contact information; emergency and routine
- Document Activities and Measure Effectiveness of Contact Efforts

Identify and Manage Contact Information

- El Paso Pipeline Group operates approximately 50,000 miles of interstate natural gas pipelines on roughly 20,000 miles of right of way in 35 states, through more than 1,000 counties and parishes, and tens of thousands of cities and towns across the United States
- Consisting of five operating companies, including ANR Pipeline, Colorado Interstate Gas, El Paso Natural Gas, Southern Natural Gas, and Tennessee Gas Pipeline with ten division offices and 62 area offices
- Located in more than 550 identified LEPCs with more than an estimated 10,000 Fire Departments, the majority of which are rural or volunteer
- Participating in 38 One Call Centers, and averaging 1,500 facility locate calls per day, in the Pipeline Group
- Adjacent to an estimated 400,000 businesses and residences located directly on the right of way with an affected public in excess of 1,000,000 contacts

Interfaces


Emergency Responders
Affected Public
Pipeline Operator
Municipalities
Excavators
Public Officials
Schools

Shared Information

- Emergency Responder Liaison
  - **Contact Information (Pipeline and Responder)**
  - **Response Capabilities (Equipment, Resources)**
  - **Facility Location Information**
  - **Jurisdictional Boundaries**
  - **Response Plans**

- Public Officials
  - **Contact Information (Pipeline and Officials)**
  - **Planning Activities and Construction Schedules**

- Annual Municipality Contact
  - **Contact Information (Pipeline and Municipality)**
  - **Facility Location Information**

- One Call Facility Location Information

- HCA Identified Sites
  - **Overview of Integrity Management Plan**
  - **Public Safety Official Input**

Documentation and Performance Evaluation

- Documentation
  - Message Delivery
  - Receipt Confirmation
  - Contact Lists
- Performance Metrics
  - Automatically tracked
  - Report Generation
- Effectiveness
  - Feedback
  - Online Survey
  - Target and Monitor Behavior

Benefits

- Enhanced liaison communications
- Sharing and management of information at appropriate level
- ‘Buy In’ from the end-point users
- Reduction of costs to implement API RP 1162 requirements for distribution, evaluation, and documentation
- Reduction in staffing requirements to implement API RP 1162

Supplementary Practices

Case Study

Public Awareness Program Workshop

Tony Franchina
Shell Pipeline Company

Supplemental Practices – Case Studies

1) Enhanced Message Content & Increased Frequency:

- Pilot to supplement regular mass mailer program with a “deep plowing” flyer/mailer
- Products pipeline in Illinois
- Considerations:
  - Amount/type of agricultural / farming (i.e. “deep plow”) activities
  - Discovered a number of top-side third party damages in some areas

Supplemental Practices – Case Studies

1) Enhanced Message Content & Delivery Frequency - Continued:

- Delivery – door-to-door for pilot; plan to mail in the future
- Frequency/Timing – alternating years from regular ROW mass mailing; planting season
- Audience Selection - use SIC codes to send to subscribers of agricultural/farming related periodicals
- Coverage Area – 5-10 miles each side of pipeline (determine based on pipeline particulars)

Planning to Deep Plow soon?...

Did you know?

Equipment digging into pipelines is a major cause of pipeline incidents.

If you plan to deep plow or dig on your property, we need your help in preventing pipeline accidents. Records show that damage from excavation related activities - particularly equipment digging into pipelines - is a major cause of pipeline incidents. Without proper coordination, excavation activities in the vicinity of underground pipelines can result in unsafe conditions.

Shell Pipeline Company LP

Supplemental Practices – Case Studies

2) Increased Frequency:

- ROW Mass Mailer
- Pilot on a products pipeline in Texas
- Considerations:
  - Traverses HCA high-population areas in Houston and Dallas
  - Likely frequent population changes
  - Considerable growth and development
  - Likely increased potential for third party damage

Supplemental Practices – Case Studies

2) Increased Frequency – Continued:

- Delivery – Mass Targeted ROW Mailing
- Frequency – Changed to annual mailings in the Houston and Dallas/Ft. Worth areas
- Audience Selection – Residents, businesses, etc. (all known addresses) along the pipeline route. Use vendor to develop list and perform mailing.
- Next Step - Validation of Effectiveness

Supplemental Practices – Case Studies

3) Delivery Outreach Method:

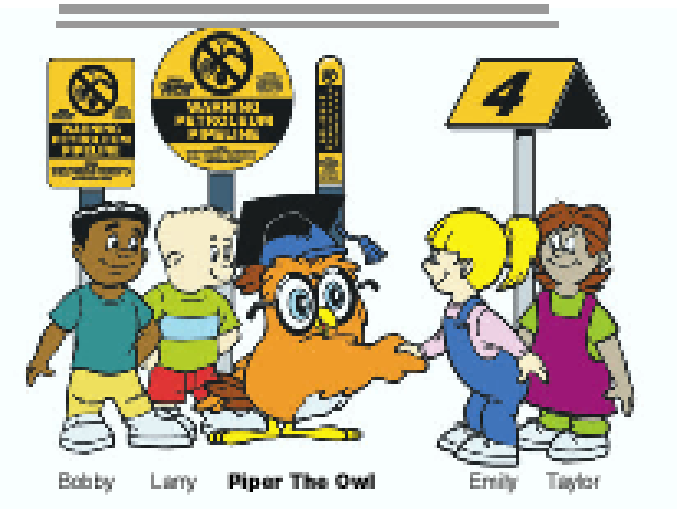
- Use of supplementary communications methods/materials for schools: Children's Activity Book and school book covers
- Shell pipelines in the U.S.
- Considerations:
  - Proximity of pipelines to a number of schools – specific local situations
  - Increased emphasis on communications with schools

Supplemental Practices – Case Studies

3) Delivery Outreach Method – Cont'd:

- Delivery – Face-to-face presentations in elementary schools along and near the pipeline route
- Frequency – Varied and ongoing
- Messages:
  - Material focused on children
  - Messages about Pipeline Safety and Damage Prevention focused on parents and teachers

Marker signs above ground approximate the location of pipelines below ground.



A Message to Parents and Teachers

Shell Pipeline Company LP

Dig Safely

Pipeline Safety

Everyone Can Help

Safety Is No Accident. Listen To **Piper The Owl**, Your Friend In Safety.

CGA Common Ground Alliance

Dig Safely

Visit our website at www.shellpipeline.com

How To Recognize A Pipeline Leak

Cómo reconocer una fuga en un ducto

SIGHT • SOUND • SMELL

VISTA • SONIDO • OLFATO

SIGHT – Look for a pool of liquid on the ground, a white cloud or fog, persistent bubbling in standing water, or discolored vegetation are signs of a possible leak around the pipeline area.

VISTA – Los indicios de una posible fuga en las cercanías del ducto incluyen un charco de líquido en el suelo, una nube o neblina blanca, burbujas persistentes en agua estancada o vegetación descolorida.

SOUND – Listen for any unusual noise like a hissing or roaring sound.

SONIDO – Esté atento a cualquier sonido extraño, tal como un siseo o un rugido.

SMELL – Notice any unusual odor.

OLFATO – Esté atento a cualquier olor extraño.

CALL BEFORE YOU DIG. IT'S THE LAW.

LLAME ANTES DE EXCAVAR. ES LA LEY.

California	1-800-227-2600	Montana	1-800-424-5555
Colorado	1-888-922-1987	New Mexico	1-800-321-2537
Delaware	1-800-282-8555	North Dakota	1-800-795-0555
Illinois	1-800-892-0123	Ohio	1-800-362-2764
Indiana	1-800-382-5544	Oklahoma	1-800-522-6543
Kansas	1-800-344-7233	Pennsylvania	1-800-242-1776
Kentucky	1-800-752-6007	Tennessee	1-800-351-1111
Louisiana	1-800-272-3020	Texas	1-800-344-8377
Michigan	1-800-482-7171	Utah	1-800-662-4111
Mississippi	1-800-227-6477	Wisconsin	1-800-242-8511
Missouri	1-800-344-7483	Wyoming	1-800-849-2476

IN CASE OF AN EMERGENCY, CALL 1-800-922-3459 (24-HOURS)

EN CASO DE EMERGENCIA, LLAME AL 1-800-922-3459 (LAS 24 HORAS DEL DIA)

A Message to Parents and Teachers

Shell Pipeline Company takes public safety and the safety of our pipelines very seriously. We have an ongoing community safety program aimed at excavators, contractors and public at large. As a part of this outreach program, this book cover provides information relating to pipeline transportation and pipeline safety. More importantly, it provides you with important safety information in the unlikely event of a pipeline leak:

- How to recognize a pipeline marker sign
- How to recognize the signs of a pipeline leak
- What to do if a leak occurs
- How to contact Shell Pipeline Company
- How to contact your local emergency response officials

If you suspect a leak from a Shell Pipeline Company pipeline or any other pipeline company, call the emergency number identified on the aboveground pipeline marker sign and call 911 or local emergency response number.

To ensure your safety and the safety of your community by protecting underground utilities and our pipelines from damage caused by digging, CALL BEFORE YOU DIG– IT'S THE LAW. Please contact your state or local One Call Center (as shown in the box or right) at least 48 hours before digging.

Safe digging is simple follow these four steps:

- Call Your State or Local One Call Center First
- Wait the Required Amount of Time
- Respect the Marks
- Dig with Care

Please take a few moments to familiarize yourself with this important information. Keep it handy for future reference. We consider you to be a vital part of Shell Pipeline's Community Safety program and together we can ensure that no pipeline digging accidents are prevented. For additional information visit our website at www.shellpipeline.com.

Thank you

Shell Pipeline Company

What You Should Do If You Suspect A Leak

Qué debe hacer si sospecha que existe una fuga

1. **Turn off and abandon equipment**
   Apague y abandone el equipo
2. **Leave the area quickly**
   Retirese del área inmediatamente
3. **Warn others to stay away**
   Avise a las demás personas que se mantengan alejado
4. **Seek the aid of local authorities**
   Busque la asistencia de las autoridades locales
5. **Notify the pipeline operator immediately**
   Notifique inmediatamente a la empresa operadora del ducto
6. **Do Not use open flames or bring anything into the area that may spark ignition of the leaking product (telephones, flashlights, motor vehicles, etc.).**
   No use flamas abiertas ni traiga nada al área que pudiera generar chispas y ocasionar la combustión de la fuga del producto (teléfonos, linternas, vehículos motorizados, etc.).

In An Emergency If you know of or suspect an emergency involving a Shell Pipeline Company LP pipeline, call our emergency telephone number: **Call 1-800-922-3459** and call 911 or your local fire or police authorities directly.

En Caso De Emergencia Si sabe o sospecha que existe una emergencia que involucra una instalación de Shell Pipeline Company LP, llame gratis a nuestro número telefónico de emergencia **1-800-922-3459**.

Shell Pipeline Company LP

Name: _____

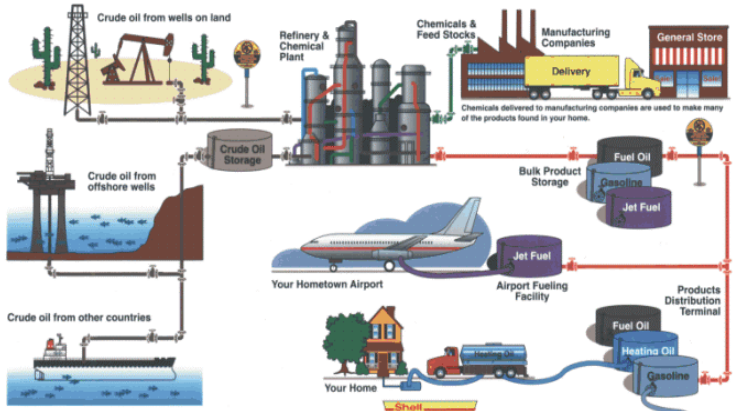
Book Title: _____

Moving Energy Safely

Did You Know... Pipelines:

- are the safest means of petroleum transportation
- move 2/3 of the petroleum transported annually
- are a critical part of our nation's energy system

Pipeline Transportation Supporting The American Way Of Life



The Pipeline Transportation System

Interstate pipelines deliver over 12.9 billion barrels (542 billion gallons) of petroleum products each year. About 19% of the petroleum products transported by pipelines is crude oil (7.6 billion barrels) and the remainder (5.3 billion barrels) is in the form of refined petroleum products.* Crude oil is the raw material for making petroleum products. Crude oil pipelines transport crude oil from onshore and offshore production wells and from coastal shipping terminals to refineries and chemical plants. At refineries, the oil is processed into refined products such as gasoline, heating fuel, diesel, and oil feed stocks. At chemical plants, the oil feed stocks are processed into resins, plastics, chemicals, and agricultural products. These base products are then manufactured into hundreds of products used in and around your home. Pipelines also handle the second part of the transportation journey – transporting the refined products to regional and local distribution centers. At the distribution centers, the products are loaded on to tanker trucks for further transportation to airports, service stations, and to your home. *Source – American Association of Oil Pipelines (AOPL). ©2002 Shell Pipeline Company LP

Please visit our website at www.shellpipeline.com

Shell Pipeline Company LP

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Delivering our Future Today

Implement Program and Track Progress

Step 10

Public Awareness Program Workshop

Lori Komatar
Williams

IMPLEMENT PROGRAM

- Develop resource plan and budget that describes key roles and responsibilities
- Identify and assign company positions/employees that will carry out program
- Identify external resources/tools needed
- Identify media and methods of communication and basis for selecting
- Determine frequency of communications and basis for selecting

IMPLEMENT PROGRAM

- Determine where supplemental efforts (beyond the baseline program) will be used and the basis for selecting
- Identify the evaluation process including objectives and methodologies to be used to perform the evaluation and analyze the results
- Identify the criteria for program improvement based on the results of the evaluation

PROGRAM RECORDKEEPING

- Maintain lists of audiences receiving materials
- Maintain copies of materials mailed/delivered
- Maintain documentation of meetings, training, and other contacts or feedback from public
- Document all program evaluations, including current results, follow-up actions and expected results
- Retain records for a minimum of 5 years

RP1162 Workshop
BREAK 2:25p – 2:45p Central Time

Program Evaluation and Improvement:

Steps 11 & 12

General Concepts and
RP 1162 Approach

Houston, Texas

September 4, 2003

Philip Schaenman, President

TriData

TriData

Personal Background

- Performance measurement for Bell System, municipal services
- Founded TriData Corporation (1981)
  - **Safety, emergency management, performance measurement**
- Worked with API in 80s on fire and occupational safety data
- 25 Years experience in performance measurement
  - **Proving Public Fire Education Works**
  - **Overcoming Barriers to Public Fire Education**
  - **Chap. 8, Program Evaluation, RP 1162 (co-author)**
  - **Self-Evaluation form (reviewer)**

TriData

Program Evaluation

Objectives

1. Evaluate status of implementing the operator's public awareness program. (process measures)

2. Evaluate effectiveness of public awareness program. (output and outcome measures)

TriData

Measuring Program Implementation

- Is there a written plan to achieve public awareness goals?
- Does it follow RP 1162?
- Has the program been implemented according to plan?
- What is the program status versus planned schedule?
- Is program updated with evaluation data, and as organization or environment changes?

Potential Sources of Data for Implementation Measures

- Public Awareness Program Manager
- Internal self-evaluation committee
- Third-party reviewer
- Regulator

TriData

Program Effectiveness

Hierarchy of Measures

- Outreach — e.g., number and percent of target stakeholders reached
- Knowledge/Understandability — e.g., “test” score of stakeholders on key messages
- Behavior — Do they do the right thing? (e.g., call one-line, dig safely)
- Results — e.g., # of third party incidents; appropriate actions for a leak

TriData

Data Collection Technique: Routine Record Keeping

- # Contacts with local officials, emergency responders (outreach)
- # Homes reached by direct mail (outreach)
- # Increase in one-call tickets (behavior)
- # Third party excavation incidents (outcomes)

TriData

Data Collection Technique: Focus Groups

- Focus Groups (6-12 people)
  - **Citizens near pipeline**
  - **Excavators**
  - **Local government officials**
  - **Employees not involved in program**
  - **First responders**
- Run by professional facilitator or PR person
- Get data, insights on understandability of materials, state of knowledge
- Do early in program planning or when major change is planned

Data Collection Technique: Surveys

- Survey
  - Affected public along pipeline
  - Excavators
  - Local government officials
  - First responders
- Measure awareness, knowledge, behavior data
- Sample Size
  - Much less than you might think
  - Even 100 citizens is good
- Baseline Frequency = 4 years
- Consider cooperative surveys with trade associations

TriData

Data Collection Technique: Post-Incident Reviews

Provides most critical, bottom-line information:

- Were incidents caused by third parties? **(outcome)**
- Was a call made before digging? **(behavior)**
- Did citizens and/or first responders act appropriately:
  - **Recognize leak?**
  - **Report incident to correct number?**
  - **Take appropriate safety precautions?**

(knowledge/behavior)

TriData

Summary

- Basic idea is to measure
  - Program status (process)
  - Outreach
  - Knowledge
  - Behavior
  - Bottom-line outcome
- Basics in RP 1162 (Section 8 and Appendix F)

Public Awareness Program Process Guide

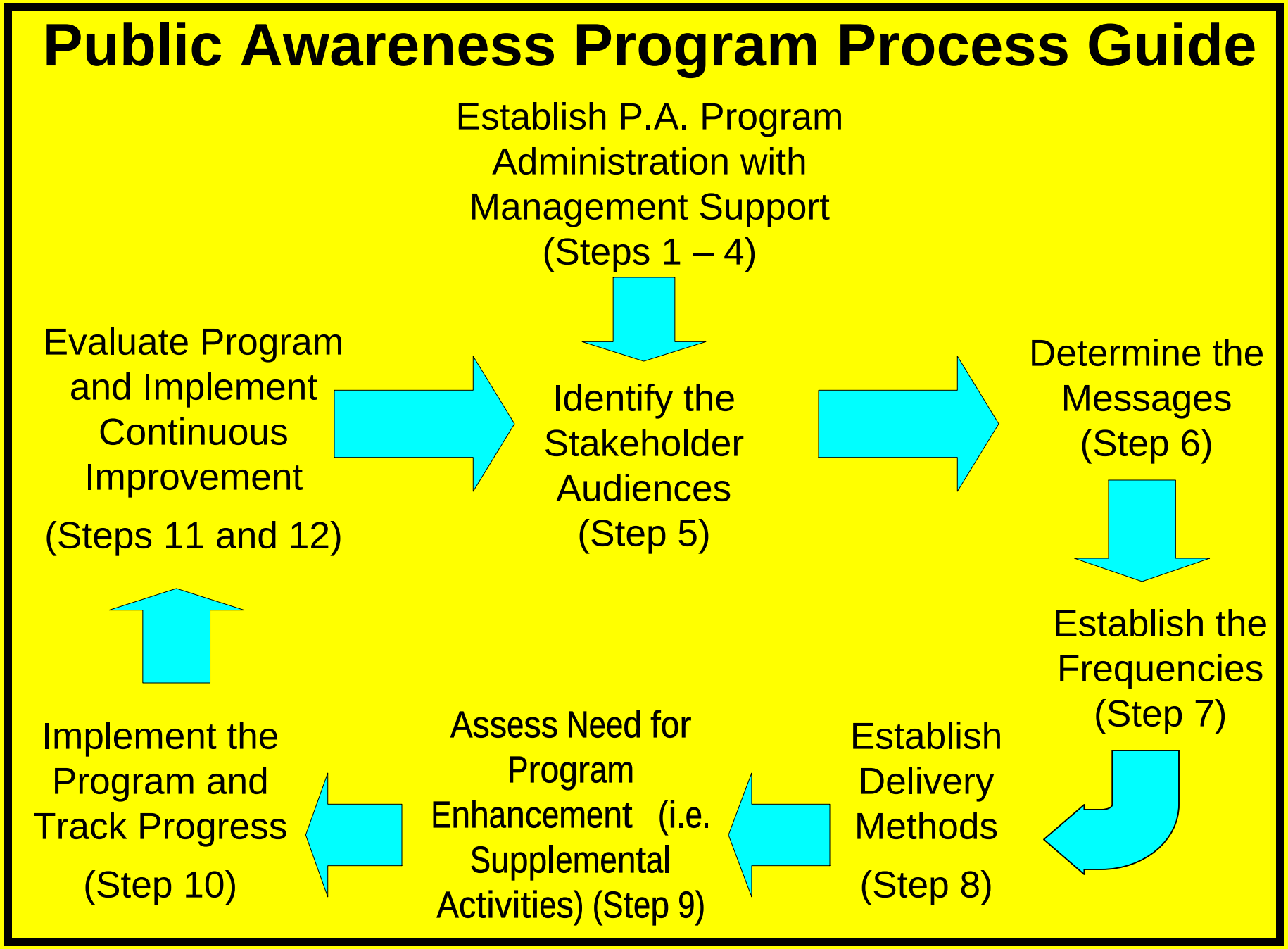


Figure 2-1

TriData

Questions?

Program Evaluation and Improvement

Case Studies

- Ron Embry – ExxonMobil Pipeline
- Susan Castglione-Baranski – Colonial Pipeline
- Bev Chipman – Williams Gas Pipeline
- Robert Claude – CenterPoint Energy

Moderator: Phil Schaenman – TriData

Effectiveness Evaluation of a Mailed Brochure

Ron Embry

ExxonMobil Pipeline Company

Questions Posed in an Effectiveness Evaluation

- General Questions
  - Is the program being implemented as planned?
  - Is the program achieving its goals?

Specific Questions

- Short term
  - Are the target audiences being reached?
  - Are the intended messages being delivered?
  - How well do the recipients receive and understand the messages?

Specific Questions

- Longer term
  - Are the target audiences changing (awareness, behavior, etc.) as a result of the education program
  - Is pipeline performance improving in ways (e.g., third party hits, ROW encroachments, One Call inquiries) related to improved awareness in the target audiences?

Program Improvement Questions

- What does your effectiveness evaluation suggest as steps to improve your program?
- How well is the program documented?
  - The plan, the execution, and the evaluation to identify and implement improvements

Evaluation by Telephone Survey

- Selected and contracted with a public research firm
  - Good statistical capability
  - Expertise in design and interpretation
  - Associated with a polling firm
    - Expertise in conducting surveys

Survey Design

- Contract for number of actual responses required to set statistical accuracy
- Sampling technique to ensure random selection
- Determine what you want to measure
- Plan for repeats to check trends
- Limit length of time to complete the questions

Survey Parameters

- Random sampling of 850k residential brochure recipients in Texas
- Survey timed to collect data within 5-8 days of brochure delivery
- Survey directed to adult heads of household
- Bilingual capability
- Eight minutes to complete survey

Results

- Almost half (47%) recalled receiving the brochure
  - High recall rate for a single piece mailer
- Of those who recalled receiving the brochure, 26% recalled the sender
- Of those who recalled receiving the brochure, 74% rated it as very or somewhat informative

Content Questions

- Greater than 50% accurate response on content questions
  - How to determine if PL near home?
  - How to recognize a PL leak?
  - What to do if PL leak occurs?
  - Who to contact if PL leak occurs?
  - Awareness of One Call system

Follow-up

- Reinforced need to sharply focus brochure mailing to buffer zone residents
  - Improve alignment of PL route with target recipients
- Plan to repeat survey periodically to measure trends

Colonial Pipeline Case Study

Survey Tools, Techniques and Experiences to Assess Public Awareness

Susan Castiglione-Baranski
Senior Manager, Corporate & Public Affairs
Colonial Pipeline Company

Public Opinion Surveys

- Survey Groups
  - Residents along proposed expansion project route
  - Residents along existing pipeline
  - Public in general vicinity of pipeline
- Types of Surveys
  - Telephone
  - Written questionnaire submitted via U.S. Mail

Public Opinion Surveys

Type of Survey	Audience	Number of Participants	Year	Cost
Telephone Survey	• Residents along proposed expansion route	• 800 contacts	1999	$12,000
	• Residents in vicinity of pipeline Knoxville TN	• 300 contacts	2001	$6,250
Mailed Questionnaire*	• Residents along Colonial's Pipeline System	• Sample size: 2,712; 615 responses	2002	$30,000

*Focus Groups also used to validate questionnaire results

Public Education Program Response Cards

- Information/Comment Cards mailed with Public Education Materials in 2001
  - 12,200 people surveyed
  - Cost: $1,500.00
- Results
  - 1,100 cards returned
  - Corrected resident addresses
  - Identified situations requiring attention
  - Comments on materials received, requests for information, perceptions of Colonial, etc.

Focus Groups

- **Third Party contracted to conduct resident focus groups in 2002 to validate mail questionnaire**
  - Chattanooga, Tennessee and Atlanta, Georgia
  - Four Focus Groups held; two demographic types: rural and urban
  - Assess landowner/resident knowledge of Colonial, identify issues, establish preferences for receiving information
  - Cost: $10,000
- **Results**
  - Level of public awareness of Colonial Pipeline
  - Recommendations for improving direct contacts (personnel, approach and attitude)
  - Preferences regarding effective communication methods and frequency of contact

Large Scale Evaluation and Research Project

Case Study

Bev Chipman

Williams Gas Pipeline

Large Scale Evaluation and Research Project

- Williams Gas Pipeline initiated a national research project in 2001
  - Five natural gas pipelines
  - Wirthlin Worldwide consulting and research firm
- Goals were:
  - To determine level of public/stakeholder awareness of gas pipeline industry and local operations
  - Identify best methods for reaching stakeholders
  - Identify key messages for stakeholder groups - landowners, public officials and the media

Methodology

- National Quorum Questions tagged on to Wirthlin National Quorum
  - 12 questions
  - 1,000 adults in targeted states/communities
- Triad (Focus) Groups in communities along the pipeline
  - New Jersey, North Carolina, Kansas, Washington
  - Individual sessions with 3 stakeholder groups (landowners, media, community leaders)
- Benchmark telephone survey of targeted stakeholders (800+)

Methodology

- WGP provided line lists and stakeholder lists for phone survey
- Wirthlin supplemented lists
- WGP reviewed and approved all questions
- Research conducted over a two month time period
- Extensive final report included recommendations on tactics for reaching stakeholders and messaging

What We Learned

General themes:

- Community leaders and landowners have a generally favorable impression of natural gas pipelines
- Community leaders and media do not understand the various aspects of the industry - producers vs. transporters vs. delivery – are all mixed together
- Landowners want more information about pipelines in their area not generic information
- Safety is a primary concern for all stakeholder groups due to a lack of knowledge about pipelines
- The more familiar people/stakeholders are with pipelines the more favorable they become

What We Learned

General Themes:

- The preferred method of delivering information is in-person (a personal visit, meeting, site tour, etc.) Direct mail was listed second.
- Messaging: Pipelines must be tied with the service and value they provide ex: “improving the quality of life” the fuel that “heats your home and generates electricity”
- Messaging: Operational messages alone are not enough – too much emphasis on “safety” creates safety concerns

Small Scale Evaluation Project

2002 Landowner Survey

- Direct mail piece targeting landowners along Williams' Northwest, Central and Transco Pipelines
- 67,000 landowners
- Brochure containing operations and safety-related
- information
- Eight-panel, single-color, tri-fold with postage paid tear off response card
- In-house project with no outside consultant or direct mail firm

Goals

- To provide useful operations and safety information to people living on or near a Williams pipeline
- Sample landowner/residents general awareness of pipeline facilities in their area
- Identify a desired frequency and best methods for conveying safety related information

Methodology

- Brochures mailed or hand delivered to landowners/residents along the right of way
- Brochure developed in-house and printed by local vendor using volume discount
- Brochure sized to qualify for minimum postal rate
- Postal account for returned response cards established at a single post office to reduce costs – single annual fee and volume discount
- Results tabulated in-house using Excel spreadsheet format

What We Learned . .

- Landowners along the right of way want more customized information on the facilities in their area in addition to general pipeline operations/safety information
  - Example: Size of pipe, pipeline purpose and reliability, customers served, number of pipes, volumes, maintenance plan, local numbers, etc.
- Information via the mail is desired once a year (80%) vs. twice a year
- Safety information is kept by the phone (60%) and magnets and stickers with phone numbers are popular items. The refrigerator ranked #2, desks ranked #3
- Some of the copy points in the brochure were inconsistent and unclear (message testing)
- Landowners expressed thanks and provided unsolicited positive comments about local operations staff

Conclusions

- Both surveys provided valuable information
  - Wirthlin project provided valuable insight on messaging
  - Landowner survey provided insight on tactics and allowed us to ‘test” brochure copy for understanding
- Both evaluation tools provided positive feedback on local operations and reinforced the importance of <u>customizing messages</u> and localization when possible
- Both projects were time intensive for in-house staff
- Share evaluation results and insights with senior management and employees

Measuring Program Effectiveness
The CenterPoint Energy Arkla/Entex Gas Experience

Case Study

Robert W Claude
Senior Counsel
CenterPoint Energy

Media used in Entex-Arkla Program

- Bill Inserts and Backers
  - Two Bill Inserts on Leak Detection
  - Dig Safely Insert
- Public Speaking – Written material & videotapes for speeches to
  - General Public
  - Local Emergency Personnel

Media used continued

- Brochures
- Newspapers
- Television
- Radio
- School Materials
  - NEF Program
  - Culver Program

Arkla-Entex Leak Detection Program

- Messages
  - ☞Call the local gas utility first.
  - ☞Detection of odor.
  - ☞Don’t use phone or turn on light.
- Media
  - ☞TV, Radio, Bill Inserts, Public Speaking Program, School Program

Dig Safely Program

- Adopted DOT Dig Safely program as model
- Media
  - Newspaper
  - Brochures
  - Public Speaking
  - Bill Inserts
  - Participation in local Damage Prevention Councils

Liaison with Local Officials

- Message concerns the operation of a distribution system & role in emergency response
- Media
  - ☞ Public Speaking Program
  - ☞ Brochure – SGA handbook

Summary of Program Requirements

- Program complies by measuring
  - Implementation by Operator
  - Effectiveness of Message

Measures of Implementation

- Letters sent to Civic Associations
- Gas Safety Awareness Logs
- Report of Public Liaison Mtg.
- Records of media buys in relevant media markets

Measures of Effectiveness

- Number of Calls to One Call
- Leak Calls during media campaigns
- Focus Groups
- Internet Surveys
- Public opinion surveys
  - ☞ Proprietary and industry-wide
- Frequency of Third Party Damage

Public Opinion Surveys

- Measured base knowledge of gas safety issues
- Benchmark Survey of Public Opinion prior to first TV commercial campaign in 1992.
- Follow-up Surveys performed in May 1994 & October 1998

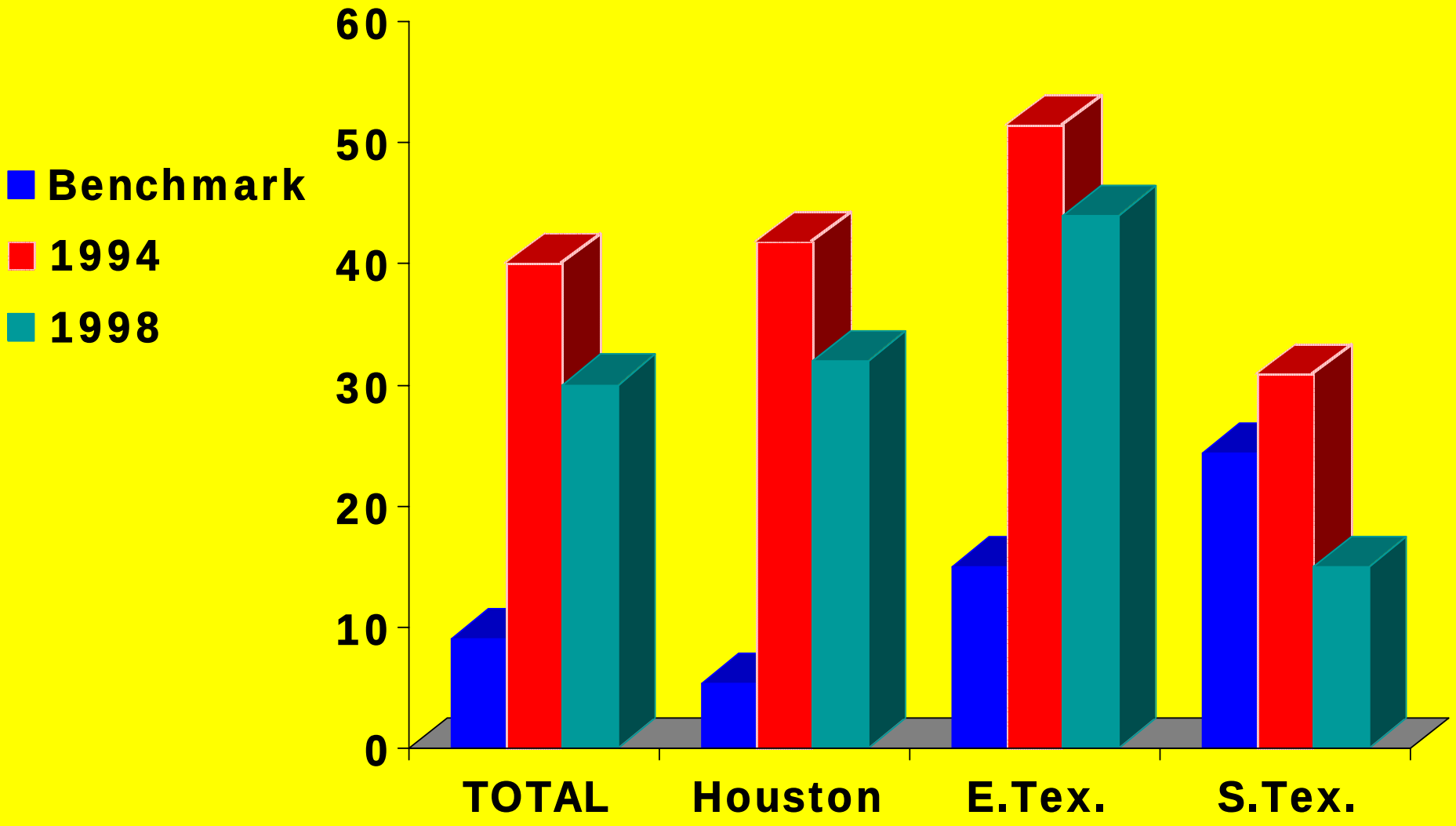
Survey Purpose & Design

- Allowed us to measure effectiveness of the program
- Same number of respondents and same questions as benchmark survey
- Statistically significant increases
  - ☞ 2.8% for total sample
  - ☞ 6.5% for each region
- Limited no. of significant changes

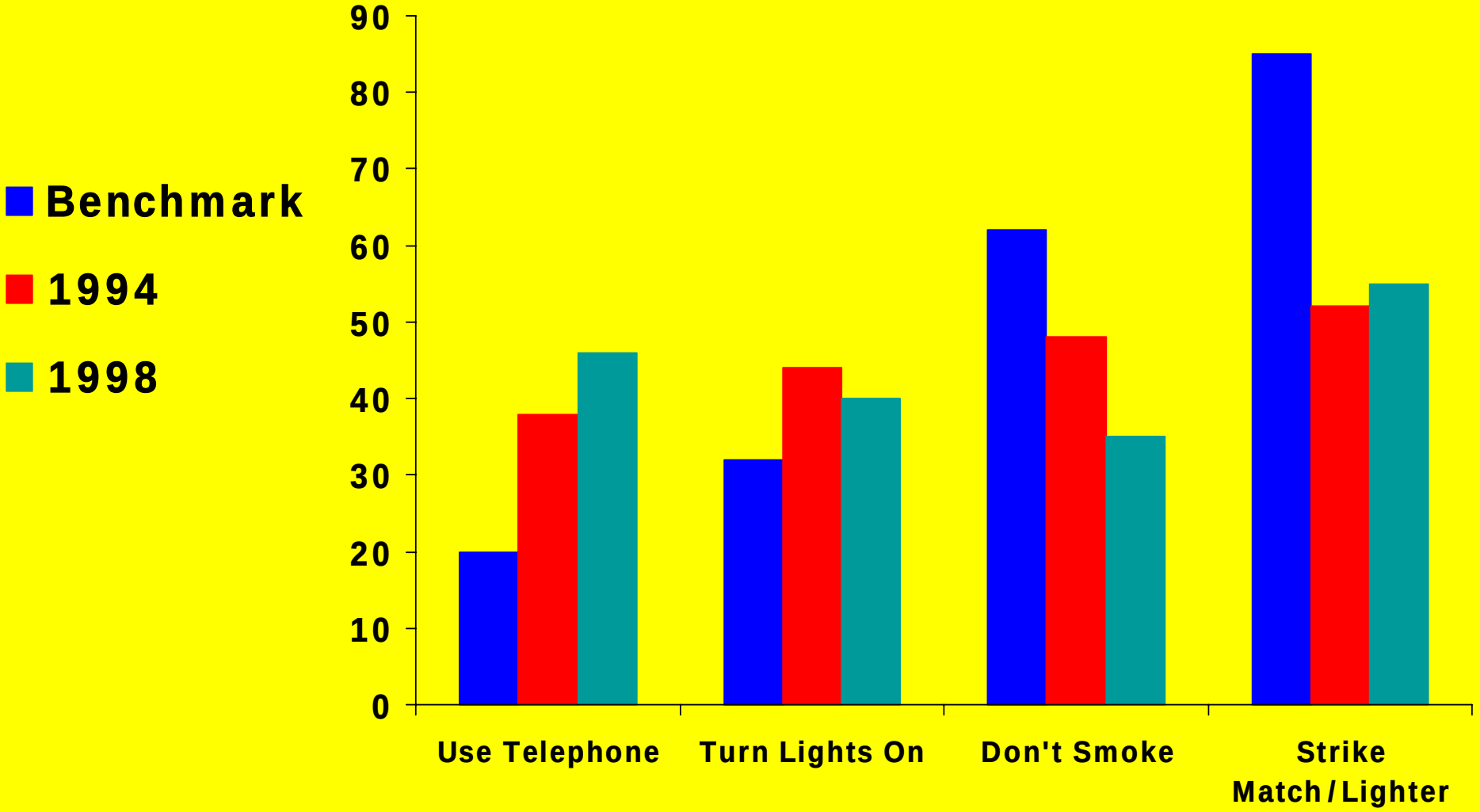
Survey Purpose & Design cont'd

- 1500 respondents overall - 300 from each region
- Total amounts were weighted by division customer count
- Questions on all aspects of knowledge of gas safety - both aided and unaided

Recall of Gas Safety Announcements



Changes in Unaided Awareness of Leaking Gas Precautions



Focus Groups

- Small groups randomly selected and interviewed about gas safety & commercials
- Used to test both concepts before campaign and recall and acceptance after campaign
- Other groups show similar results

2003 Program

- New Radio commercials
  - ☞Warns against use of any electrical appliances in presence of gas
- Internet survey test understandability of new radio commercial concepts
- JD Powers Survey – Entex ranked by consumers among top five gas LDCs in educating on gas safety

Conclusions

- Measuring effectiveness of program can be difficult
  - Requires a series of studies to develop appropriate standard
- Success generally limited to a small group of messages during any one campaign
- Program must be dynamic and prioritize the messages

Adjourn Day 1

- Workshop Website:

http://primis.rspa.dot.gov/edu/RP1162_workshops.htm

- Tomorrow's Session Begins at 8:00 AM
- Bring Completed Self-Assessment Forms
- Don't forget about the Workshop Evaluation Forms

Resume slides Day 2, Session 1