

PIPELINE SAFETY PUBLIC AWARENESS PROGRAMS

Recent incidents in Kentucky and California dramatically illustrate how poorly informed the public is about the existence of pipelines in their community. The shock of any pipeline incident and the associated community distrust of pipeline operators that arises is compounded when the public involved was not aware of the pipeline's proximity prior to the incident.

Yet, research seems to indicate that increasing pipeline awareness about the existence and proximity of the pipeline can improve trust with the pipeline operator and increase the public's support of pipelines in general.

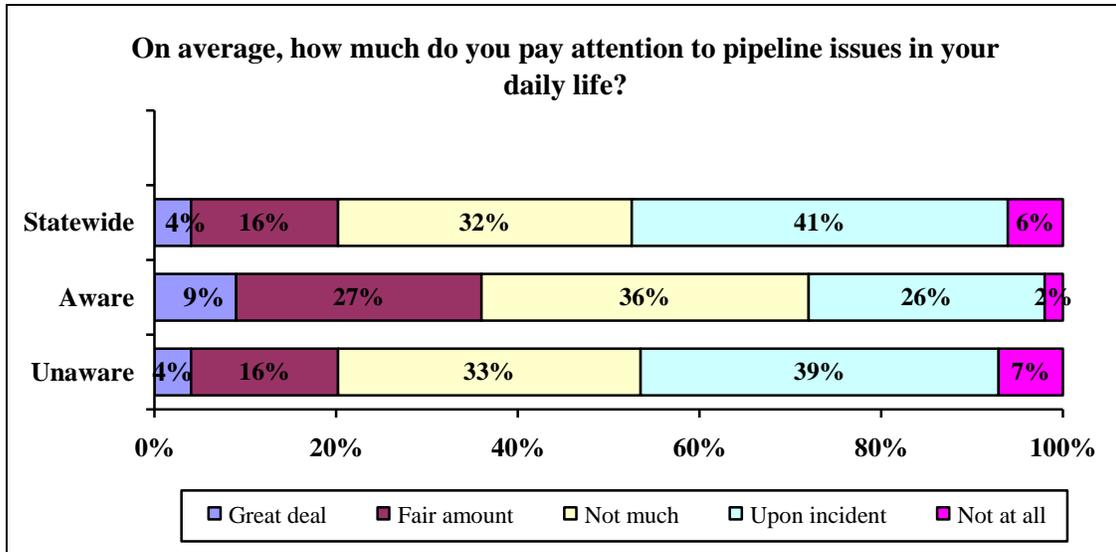
As the lead agency for all pipeline inspections and incidents within the state of Washington, the Washington Utilities and Transportation Commission (WUTC) has conducted a variety of research projects into the role of pipeline safety public awareness programs and the challenges and opportunities they pose for improving public safety. The commission's research included a literature review, surveys of stakeholders, personal interviews with local officials, first responders and other key leaders, public opinion polling, and focus groups.

The public opinion polling conducted in Washington compared 400 respondents known to live near transmission pipelines with a poll of 500 people selected randomly across the state. Less than 40 percent of the 400 indicated they knew about living near a major pipeline. Even more concerning was that 55 percent flatly denied that they lived near any major gas or liquid pipeline.

When the "awares" (those in the poll that indicated that they knew they lived near a major pipeline) were compared to those in the sample who were unaware, the poll found that awares were more likely to support pipelines. Seventy percent of the awares strongly agreed that pipelines are an essential element in our nation's energy supply system compared to 59 percent of the unawares. When asked how concerned they would be about living near a major pipeline, 36 percent of the "awares" were concerned compared to 46 percent of the unawares.

The polling data showed that aware residents are more likely to believe in the reliability of the information they receive. But perhaps most significant to future awareness efforts, more than a third of the aware residents said they pay a "great deal" or "fair amount" of attention to pipeline issues in their daily lives, compared to only 20 percent of the unaware residents.

Not everything was rosy in this poll, indicating that more work needs to be done. For instance while aware residents were more likely to trust pipeline, two-thirds of both groups had a negative view of the job operators are doing to keep them informed about pipeline safety issues. Only 30 to 40 percent thought that basic safety information is being effectively communicated. Three out of four residents regardless of being aware or unaware believed they do not receive enough information about pipeline safety.



Aware were those surveyed who said they knew they lived near pipelines. **Unawares** were those who we identified as living near a transmission pipelines but were not aware of it.

The Washington pipeline safety program initially launched this research effort so it might learn more about public awareness issues and have an informed approach to the development of public education guidelines and regulations. While the importance of public awareness programs is widely accepted, many operators will admit that public education and outreach have not received the level of commitment it deserves. However, the industry’s efforts to establish a standard of practice, backed up by evaluation requirements, signals a desire to increase the overall commitment to effective communication in the future.

In June 2004, the US Department of Transportation’s Research and Special Programs Administration (RSPA) and OPS proposed a rule which would require all gas and hazardous liquid pipeline operators to develop and implement public education programs that comply with American Petroleum Institute’s Recommended Practice 1162 (RP 1162). This recommended practice, developed as a consensus industry standard, is intended for use by hazardous liquid pipeline operators, natural gas pipeline operators, local distribution companies, and gathering line operators.

While RP 1162 is an excellent guide for developing individual pipeline safety public awareness programs, the recommended practice and ultimately the rule may have more significance if it fosters greater cooperation and coordination within the industry and with other pipeline safety stakeholders.

A strength of RP 1162 lies in its evaluation and review component. Operators who follow the guidelines will regularly analyze their public education programs, with the purpose of improving what works and revising or discontinuing what does not.

A weakness of RP 1162 is its orientation to the individual operator’s efforts. The guideline does not contemplate the potential of other, potentially competing safety messages nor does it foster the partnering potential within the industry or with other stakeholders.

This paper, produced by WUTC staff and consultants involved in its public awareness studies, is designed to identify challenges and opportunities present at this time. With operators now looking for ways to effectively comply with RP 1162, an excellent opportunity presents itself to develop a tradition of innovation and cooperation in public education.

CHALLENGE—Acquiring and holding their attention

Public safety is considered enhanced if target audiences are more informed about the presence of pipelines, procedures for emergency and methods for recognizing and reporting any problems that might occur along the pipeline. Target audiences include those that live, work or congregate within a certain distance of pipelines, local government officials, first responders and excavators. The WUTC's research focused on the first three of these audiences and primarily those living, working or affected by hazardous liquid and natural gas transmission pipelines.

The commission's polling indicates that roughly three out of four members of the general public believe they do not receive sufficient information about pipelines. Yet, far less than a majority devote more than occasional attention to pipeline issues.

The challenge of delivering so much information through a small span of attention, calls for a review of the issues contributing to the challenge. These issues include:

- Breadth of information that needs to be conveyed;
- Differences in the information based on the contents and type of pipeline;
- Consequences of competing messages from similar types of concerns;
- Range of the audiences and
- Level of commitment and understanding of the communicator (pipeline operators and the public agencies)

Breadth of Information

RP 1162 outlines a dozen topics for message content ranging from pipeline location to emergency response to damage prevention. WUTC polling indicates that audiences consider all the likely messages important. However, the research also indicates that the target audience's attention to pipeline safety is limited and may not be capable of receiving all of this information in one communiqué. This suggests communication plans need to recognize a form of information triage where the most essential information or at least interesting information is conveyed first with additional information provided to match the audience's interest level.

A key early message, at least for transmission pipeline target audiences, is identification of the general location of the pipeline. Polling found that people who are aware they live adjacent to or near a transmission pipeline are 80 percent more likely to pay attention to pipeline issues than those who are not aware of living near pipelines. Furthermore, 79 percent of those who are aware of the proximity of a transmission pipeline claim they know whom to alert in the event of a pipeline emergency while only 45 percent of those unaware made that claim. Sadly, polling showed that less than 40 percent of those located near a transmission pipeline were aware of its

existence. Finally, the study found that 79 percent of the aware residents knew whom to alert in a pipeline emergency compared to only 45 percent of the unawares.

Differences

Some of the messages are dependent on the product carried in the pipe. For instance, emergency response and detection vary depending on whether the pipe contains natural gas or liquid (e.g. petroleum). These differences can make coordination between pipeline operators difficult and result in competing messages.

Competing Messages

There is significant competition for the attention of the target audiences. This competition can come, as mentioned above, from other pipeline-type messages but more significantly from other non-pipeline sources who have an equally important mission of informing the public about potential hazards and the need for awareness. These competing messages of potential hazards can cause target audiences to become jaded or “turn off.”

Range of Audiences

RP 1162 describes several types of audiences including people who live, work and congregate near pipelines, first responders, local officials and excavators. Within these audiences, a further distinction can be made based on whether they have a relationship with the pipeline operator. For instance, natural gas customers receives regular billing and information while other audiences living near transmission lines might not receive any regular information. First responders include volunteer and paid firefighters, paramedics, emergency management personnel, spill response teams and law enforcement. The motivations, interest and ability to receive and learn from pipeline safety information varies throughout this range of audiences and creates a challenge in how to shape effective messages.

Level of Commitment & Understanding

Pipeline operators bring varying levels of commitment and understanding to their communication efforts. Distribution companies, located within the target audience community, have a built-in advantage over transmission companies who are often distant from those communities. However, leadership emphasis on pipeline safety at the highest level can have a positive impact throughout the organization. For instance, if pipeline awareness is viewed as a regulatory compliance issue, it may not be effectively included in broader public relations planning. Public education can be part of the mission of all employees and the company or one task among many for one company employee.

ADDRESSING THE CHALLENGE

An operator who diligently follows the RP 1162 will go a long way towards surmounting the challenge of acquiring and holding the pipeline safety audiences. However, an indicator of success is how the operator views this responsibility – as a regulatory compliance exercise or as a vital part of the company’s operations.

Emphasize the Delivery Strategy

No matter how slick or on-target the message, the public awareness program will only be as effective as the delivery strategy. It helps to think beyond the tactical requirement of

getting the message out to think in terms of relationships and connections. Contact is not made if the message lands on the wrong desk. And even if it hits the right target, it may not produce the desired effect if other issues such as timing or credibility stand in the way.

A consistent theme through all of the WUTC's research results is "Be part of the community, build relationships and provide good, accurate and complete information." In other words, pipeline operators (and agencies) should be prepared to pursue public education not as a public relations "attack" but as a siege. This means establishing a long-term presence where one activity builds on the previous one. Baruch Fischhoff of Carnegie Mellon University, describes this process as "an evolutionary process in which communicators gradually reach higher levels of understanding about the nature and complexity of their task. Communicators at each stage lack some of the understanding of public concerns that become apparent at later stages."¹

RP 1162, with its iterative evaluation and review process, accommodates this evolution. But again, it requires a commitment to continuously improve the delivery strategy. In this endeavor, the operator is not alone if willing to invest in relationships. Allies can be developed by taking an active interest in the complex concerns of the target audiences. As communicators of risk issues, operators and agencies should take "on the public as partners in risk management. It means providing them a seat at the table and allowing them to communicate their own concerns. In effect, it means opening a communication channel in the opposite direction."²

While this type of relationship building may seem time-consuming, the payoff is considerable, both in the goodwill built with communities and in establishing another means for delivering the pipeline safety message. In summary, the keys to an effective delivery strategy are to be part of the community, to listen and to build relationships that can evolve into partnerships.

Create and Nurture a Network of Pipeline Safety Leaders

Few if any of the constituencies identified by RP 1162 have a professional interest or regular exposure to pipeline issues. Within these constituencies, however, there are individuals, who, for either professional or personal reasons, are willing to devote some portion of their time to keeping current on pipeline issues. They may be an assistant city manager or an emergency management coordinator, a public works director, neighborhood association member, a former pipeline company employee, an aware property owner along the corridor, a member of an advocacy group, or a school board member. These people not only should be the target of information delivery but they should also be considered part of a core network that can strengthen and broaden the operator's public awareness program. They can provide a valuable communication channel back to the operator regarding the effectiveness of its message.

¹ Fischhoff, B. (1995) "Risk Perception and Communication Unplugged: Twenty Years of Process," *Risk Analysis*, 15:137-145.

² *ibid*

Building this network is a collaborative process with other operators and local/state/federal agencies sharing information regarding potentially interested individuals within a target city or county government (or the community). Cities that would qualify for a supplemental communication plan under RP 1162 almost by definition have someone within their organization who serves as the jurisdiction's lead pipeline person. Often this person is in the government's public works section in charge of permitting /or with the fire department.

As these "leaders" are identified, pipeline operators and regulators/agencies should have regular and direct contact either in person, by phone or e-mail to foster the type of two-way communication that is encouraged by RP 1162. Through repeated contact, this network of local government and community pipeline leads can be regularly updated and expanded. By building these relationships, pipeline awareness communicators, both operators and regulators/agencies, will be able to better utilize local government and community resources in contacting affected public and other target audiences.

Direct contact can be augmented with courtesy copies of mailings to constituents as well as "heads up" notice regarding pipeline repairs or tests within the a local government's jurisdiction. A key byproduct of this type of communication effort is credibility. Frequent contact, particularly when not based on emergencies, builds trust and ensures that local governments know whom to contact when they need information from companies. The payback to the pipeline operator extends beyond pipeline awareness to r benefits associated with better relations with local government. This can include participation in local land use planning around pipeline corridors, input into the local permitting processes, and active involvement in emergency planning exercises.

Public awareness opportunities that local governments offer include:

- Public/Government access TV channels
- City/Community newsletters/magazines
- Communiqués to neighborhood associations
- Appearances before council and commission meetings
- Participation in community events, fire hall open houses
- Website links to a "web central".

Recruit and Support New Pipeline Safety Leaders

Expanding and maintaining this two-way communication network of informed pipeline safety leaders requires ongoing efforts that allow for cooperation within the pipeline industry and regulators. Three of the target audiences (local governments, first responders and excavators) are members of a wide variety of associations. Outreach to these associations' annual meetings can be shared by more than one operator. In Washington State, this effort should target professional organizations and boards such as:

- State Association of Fire Chiefs
- Fire Protection Policy Board

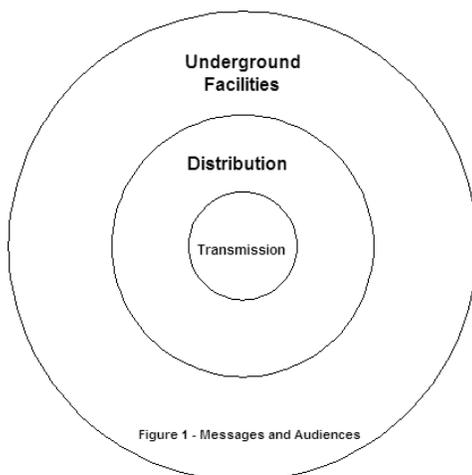
- Wash. Association of Building Officials
- Association of Washington Cities
- Washington Association of Counties
- Washington Chapter of American Planning Association
- Washington Chapter of American Public Works Association
- National Fire Protection Association (Risk Watch)
- State Interoperability Executive Committee (SIEC) – Major disasters, inter-agency (WSP Chief Lowell Porter, Chair)
- Fire Defense Committee – Getting resources to an event

A program designed to ensure regular and direct contact with these types of organizations serves a number of purposes. First, it creates the opportunity to identify new community leaders who can foster pipeline awareness. Second, it reinforces and supplements relationships built on a local level by repeating key messages and demonstrating permanency and credibility. Finally, these organizations offer additional pathways to reach target audiences. Such opportunities include:

- Organization/Association newsletters/magazines
- Participation in organization/association events
- Website links to a "web central".

Finding Umbrellas Large Enough to Cover the Messages

As stated earlier, the different types of pipeline operators and operations require messages and programs that address different sets of audiences.



The initial focus of WUTC's research has been on hazardous liquids and natural gas transmission pipelines. This is where the primary WUTC/OPS pipeline safety mission is directed and where the risk is high. However, transmission pipelines are a subset of the hazardous liquid and natural gas distribution system (the focus of RP 1162), which in turn is a subset of the underground facilities system (the focus of the Common Ground Alliance Damage Prevention Best Practices).

The hazardous liquids and natural gas transmission pipeline safety/awareness message is particularly important to a relatively small, exclusive and identifiable group of people – those who live on and in the immediate vicinity of the transmission pipeline corridors.

The hazardous liquids and natural gas distribution pipeline safety/awareness message applies to a much broader audience. The underground facilities (gas, electric, water, sewer, telephone, cable, etc.) safety/awareness message applies to an almost universal audience.

Though some audiences may overlap, the information, partnerships, communities, and delivery of the message may differ. This brings into play increased competition for the public's attention while also risking public confusion over the meaning and significance of pipeline safety messages. In market areas where these different sets of audiences' messages are needed, operators and other pipeline safety communications should attempt to coordinate the timing, delivery and content of their educational efforts.

At the very least, pipeline safety communicators should consider establishing a brand identity. This marketing tool uses a symbol, name or tagline to trigger a set of attributes within the target audience. In focus groups, the WUTC found that people who were aware about living near pipelines knew the importance of their pipeline safety information but would like a way to easily recognize it from the normal daily bombardment of mail and media messages. The consensus was for a simple title or tagline that stated clearly the contents of the material.

With a common brand, companies in a market area or region could heighten the recognition and effectiveness of its direct mailings by timing them with a cooperative promotional effort, using paid advertising, special events, public service announcements, press releases and other activities. The branding goal should be to raise awareness of pipelines so that when mailings arrive, the target audience has a reason and context to attend to the communication.

Make Messages/Materials Credible, Available, Personal and Simple (CAPS)

The attributes that pipeline safety branding should trigger are clear in the WUTC's research. In polling and talking with residents who knew they lived along pipelines, the WUTC found that materials should be: credible, available, personal and simple.

Credibility: While pipeline operators scored below most other stakeholders among target audiences in credibility, when asked directly in focus groups, people readily admit that pipeline operators are the experts. In follow up meetings with local government and community leaders, the WUTC found that credibility grew with more frequent and reliable contact from the operator. However, that contact was successful with key leaders only if the operator was willing to share accurate and complete information. Also, an operator's credibility could be enhanced by partnering with those stakeholders with greater credibility, most notably firefighters.

Available: Since RP 1162 details more messages than the average person is willing to receive in one sitting, it's essential that communicators practice a form of "information triage." Start with most interesting or most vital information; then provide additional information as time and interest allow. The primary message for transmission pipelines should be to simply identify the existence and general location of the pipeline. WUTC's research shows target audiences are more

willing to receive information and support pipeline operators in their safety efforts if they realize they are located near a pipeline. Once an individual's interest has been piqued, several means must be available to satisfy that interest including toll-free information lines, websites and more in-depth reading materials.

Personal: One of the struggles of pipeline safety communications is that the subject of the communication is underground. Fortunately, the people who operate the pipelines are above ground and they should do their best to exploit that advantage by putting a face to the pipeline network. This need for personal contact came up strongly with residents, local government officials and first responders. Frequent in-person contact with key leaders in the community builds trust which translates into the desired "credibility" attribute. Focus groups revealed several anecdotes of target audiences getting the "best" information while chatting across the hood of a service truck. Companies should allow, even encourage, employees to be part of their outreach team. Crews should carry educational materials and be willing and prepared to answer questions while working in the field.

Simple: In this case, simple does not mean simplistic or condescending. It means that the message and the materials should be easily recognizable and straightforward in design. WUTC found that residents who know they live near pipelines want information but may not be prepared to absorb it in the form or at the time it is received. The topic of a mailing should be clearly identified such as with a brand tagline.

CONCLUSIONS

WUTC's research strongly supports an emphasis on the part of all stakeholders in pipeline safety awareness programs on focused outreach through a diverse network of pipeline safety advocates. This includes the cooperative establishment of a pipeline safety education network; specific outreach to professional associations, incorporation of a brand identity and establishment of a strong Internet presence. The pipeline safety message itself must be credible, available, personal and simple.

In addition, all pipeline safety stakeholders are encouraged to recognize and take advantage of the significant role that state and federal regulators can play in fostering public education. Regulators are newsmakers with public credibility, connections to local government and resources that are not as readily available to others. To this end, the WUTC has included some of the pipeline safety awareness efforts it is currently pursuing.

Establish Pipeline Safety Education Allies

Operators and regulators/agencies should cooperate in establishing and nurturing a network of pipeline safety experts throughout the pipeline's route and/or service territory. These advocates might not be supportive of everything the pipeline company wishes to do, but they will be allies in promoting pipeline safety education. Building this network requires a commitment by operators and regulators to be in regular contact with local governments, first responder agencies, and community organizations. It also requires a willingness to encourage two-way

communication, including constructive feedback. Where pipeline companies have facilities in the same jurisdictions, those companies can cooperate in nurturing strong relationships with local officials. This may be an area where distribution companies, with their greater local presence, can help transmission companies make the most of their limited local presence by communicating to them when important, must-attend events occur.

Engage in Outreach to Professional Associations

Pro-active outreach to professional associations supports the ongoing effort of network building. It also provides another pathway to deliver the message to target audiences. This is an activity which lends itself to industry coordination and branding. It also provides a means to identify and recruit additional community-based pipeline safety experts.

Incorporate Branding Into Pipeline Awareness Programs

While individual operator messages may have to vary because of the type of pipe and product involved, a simple tagline that clearly identifies the pipeline can be developed for the industry. Branding provides a basis for industry to cooperate in overarching promotional efforts. It makes it easier for an individual operator with infrequent contact with its target audience to access attributes such as credibility and trust associated with a carefully cultivated brand. In a focus group test of a handful of tagline options, the WUTC found that participants preferred a simple clear brand name.

Provide a Place to Go for More Information

While companies and agencies could and should steer audiences to their own website, it would be useful to create a way for the public to initially find the pipeline operator. A centralized web location could help the public locate pipeline operators in their community, acquire contact information and learn more about safety issues.

Cultivate CAPS

Running through all of its outreach activities, operators and regulators should recognize the significance of ensuring its information is: credible, available, personal and simple. These attributes build trust which fosters an environment where public safety education and awareness can become a community value.

Engage Regulators

Regulators play an essential role in supporting and originating pipeline safety messages. While opportunities and circumstances vary throughout the country, the following basic strategy elements currently being pursued by the WUTC could serve as model for other regulators.

1. **Maintain Expertise in Public Education-** By developing in-house expertise, the WUTC has been able to share ideas with operators and provide official comment on the federal RP 1162 rulemaking. While this expertise will likely be useful when auditing future operator public education plans, the WUTC sees the true value as being able to encourage public education improvements by example, rather than regulation.
2. **Improve Website –** The WUTC pipeline safety website was designed to meet the immediate needs of the regulated community but did not meet the needs of the public. Plans are underway to update the website so that the public can easily:

- a. Learn whether they live on or near a pipeline.
 - b. Find pipeline company contact information.
 - c. Access information about WUTC's pipeline safety program.
 - d. Access public safety information.
3. Build a Key Leader Network –WUTC feels strongly about the importance of nurturing local pipeline interest and is proceeding with developing such a network. The WUTC intends to create a listserv to communicate with local government officials, first responders and community leaders who wish to receive a higher level of pipeline information.
 4. Nurture A Shared Vision of Public Education & Information Access – As Washington's pipeline safety network grows in size and expertise, demand will grow for more detailed information regarding the operator's (safety) performance. The WUTC is considering (designing) a process by which stakeholders can begin a dialogue about how that demand for pipeline safety information can be met.