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Pipeline and
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Safety Administration

Summary of Proceedings: Pipeline Emergency Response Forum

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(PHMSA)

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TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY	3
SUMMARY OF THE MORNING SESSION	3
OPENING REMARKS	4
PANEL 1: REGULATOR PERSPECTIVE	5
PANEL 2: PIPELINE OPERATOR PERSPECTIVE	6
PANEL 3: EMERGENCY RESPONSE PERSPECTIVE	7
QUESTION AND ANSWER SESSION WITH AUDIENCE.....	8
KEYNOTE ADDRESS – MIKE CALLAN	10
SUMMARY OF BREAKOUT SESSION 1:	
“COMMUNICATIONS BETWEEN EMERGENCY RESPONDERS AND PIPELINE REGULATORS”	11
Key Lessons Learned from the Breakout Session 1 Discussion	12
SUMMARY OF BREAKOUT SESSION 2:	
“PIPELINE EMERGENCY TRAINING FOR EMERGENCY RESPONDERS”	12
Key Lessons Learned from the Breakout Session 2 Discussion	14
SUMMARY OF BREAKOUT SESSION 3:	
“COMMUNICATIONS BETWEEN EMERGENCY RESPONDERS AND PIPELINE OPERATORS”	16
Key Lessons Learned from the Breakout Session 3 Discussion	17
ADDENDUM 1: FORUM AGENDA.....	19
ADDENDUM 2: POST-FORUM FEEDBACK	20

Executive Summary

On December 9, 2011, PHMSA convened a day-long meeting of leaders in the emergency response community, the government, the pipeline industry, and the interested public to solicit professional advice that will inform the development of a strategy for improving emergency responders' ability to prepare for and respond to pipeline emergencies.

The first half of the forum agenda was broadcast via the internet and included presentations from experts in pipeline safety regulations, operations, and emergency response. Mike Callan of Emergency Planning, Response and Safety provided the keynote address during lunch. The meeting agenda, speaker presentation materials, and a video archive of the morning presentations and the keynote address are available at http://opsweb.phmsa.dot.gov/pipelineforum/pipeline_emergency_response_forum/index.html.

The second half of the forum consisted of three breakout sessions. These breakout sessions were not webcast or recorded. The first breakout session was focused on improving communications between emergency responders and pipeline regulators. The second breakout session was focused on improving pipeline emergency training for emergency responders. The third breakout session was focused on improving communications between emergency responders and pipeline operators. Each session lasted one hour and the attendees rotated through each of the sessions to ensure that all attendees had an opportunity to provide input on each topic.

The five primary lessons learned from the forum were:

1. Strategies should leverage and enhance existing channels and be sustainable. They should work towards institutionalized solutions. Key existing channels are NFPA 472, NPMS, 911, and 811.
2. Emergency responders want limited, targeted information in an easy to access form.
3. A central source of up to date emergency responder and pipeline operator contact information is needed.
4. The NENA Pipeline Emergency Operations Standard was a good start but the details need to be developed.
5. Emergency response training is most effective when it is hands-on, provides CEUs, is consistent across jurisdictions, succinct, and accompanied by a meal.

Summary of the Morning Session

NOTE: The time stamp in parentheses preceding each speaker's name corresponds with the time stamp on the webcast archive that is available at http://opsweb.phmsa.dot.gov/pipelineforum/pipeline_emergency_response_forum/index.html.

Opening Remarks

(00:00) PHMSA Deputy Administrator Tim Butters opened the Forum with a safety and security overview, welcomed attendees and webcast viewers, and introduced PHMSA Administrator Cynthia Quarterman.

(02:55) PHMSA Administrator Cynthia Quarterman spoke about PHMSA's mission of safety and prevention of pipeline incidents. She stated that recent pipeline incidents exposed some gaps in some emergency responders' ability to respond to pipeline emergencies. She also stated that emergency responders need to be prepared for pipeline emergencies and that PHMSA and the pipeline industry relies on emergency responders to safety and effectively respond to pipeline emergencies when they occur.

(09:34) Transportation Secretary Ray LaHood welcomed participants. He stated that safety is priority number one for the Department of Transportation. Secretary LaHood described his visits to San Bruno, California and Allentown, Pennsylvania after recent pipeline incidents there and spoke about the rise in pipeline-related deaths from 2008 to 2010. He spoke briefly about PHMSA's Pipeline Safety Action Plan and the PHMSA reauthorization bill (which was not finalized at the time of the meeting). He mentioned the appointment of Pasadena, Texas Fire Chief Lanny Armstrong and Minnesota Fire Marshal Jerry Rosendahl to PHMSA's pipeline safety advisory committees and asked for assistance from the attendees with spreading the word about the importance of calling the national 811 call-before-you-dig telephone number before beginning any excavation activity.

(17:18) Mr. Robert Neale, Deputy Superintendant of the National Fire Academy, discussed his first-hand experience with the Bellingham, Washington pipeline incident that occurred on June 11, 2003. He described several lessons learned from past pipeline incidents, including:

- The importance of pipeline incident management through the use of the National Incident Management System (NIMS) and the Incident Command System (ICS).
- The need for emergency responders to determine if pipelines are in their districts.
- The value of geographic information systems (GIS) to effective pipeline emergency response.
- The importance of local zoning laws to understanding how closely development can encroach on pipeline rights-of-way.
- The need for emergency responders to understand issues pertaining to pipelines in their jurisdictions, including the results of past pipeline inspections.
- The need for disaster operations plans to include pipelines.

(21:15) Mr. Don Stursma, Iowa Utilities Board Safety and Engineering Section Manager, representing the National Association of State Pipeline Safety Representatives (NAPSR), discussed NAPSR's role in pipeline safety. He stressed two areas for cooperation between NAPSR representatives and emergency responders:

- Emergency responders and state pipeline incident investigators need to cooperate during incident response and share information from reports that are developed after incidents.
- Emergency responders need to know the pipelines operators in their districts and how to contact them and the value of developing a good working relationship before pipeline incidents occur.

Mr. Stursma asked what pipeline safety regulators and pipeline operators should share with emergency responders and vice versa. He also discussed the importance of everyone in the chain of pipeline emergency response being adequately prepared for pipeline emergencies.

(28:50) PHMSA Deputy Administrator Tim Butters discussed the fact that PHMSA has several efforts underway to improve pipeline safety and emergency response, including:

- The 2012 edition of the Emergency Response Guidebook (ERG), which will contain new information about pipeline emergency response and will be available as Droid and Apple apps. The 2012 edition of the ERG will be published in the first quarter of 2012. More information is available at <http://www.phmsa.dot.gov/hazmat/library/erg>.
- An upcoming PHMSA Hazardous Materials Cooperative Research Program (HMCRP) project entitled “A Guide for Communicating Emergency Response Information for Natural Gas and Hazardous Liquids Pipelines.” More information is available at <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3139>.
- The second edition of *Pipeline Emergencies*, a training curriculum developed by PHMSA and the National Association of State Fire Marshals (NASFM), that is designed to prepare emergency responders to safety and effectively respond to pipeline emergencies. More information is available at <http://www.pipelineemergencies.com>.
- The Pipelines and Informed Planning Alliance (PIPA), a collaborative effort by a consortium of pipeline safety stakeholders that produced recommended practices for protecting communities, protecting transmission pipelines, and communicating among stakeholders. The PIPA recommended practices can help communities make risk-informed decisions regarding land use planning and development adjacent to transmission pipelines. More information is available at <http://primis.phmsa.dot.gov/comm/pipa/LandUsePlanning.htm>.
- The national call-before-you-dig telephone number, 811, and state one-call laws. More information is available at <http://www.call811.com> and <http://primis.phmsa.dot.gov/comm/DamagePrevention.htm>.

Mr. Butters stated that emergency response is common to both pipeline safety and hazardous materials safety and that pipelines are simply another vessel/container for hazardous materials in communities. He stressed that emergency responders handle hazardous materials incidents with the training they have received and that PHMSA wants to be sure emergency responders have exactly the training they need. PHMSA’s goal is to engage with emergency responders to develop a strategy to ensure they are prepared to deal with pipeline emergencies. The issue is complex because there are approximately 32,000 fire departments in the U.S. and over a million responders; there are differences among these departments and stakeholders need to be sensitive to designing adequate training programs that accommodate these differences.

Panel 1 – Regulator Perspective

Ms. Linda Daugherty (43:34), PHMSA Deputy Associate Administrator for Policy and Programs, opened the panel presentation with a focus on the requirements of federal pipeline safety regulations pertaining to informing the public and emergency responders about the risks of pipelines in their communities. She presented a map of large transmission pipelines in the U.S. from the National Pipeline Mapping System (NPMS) at <http://www.npms.phmsa.dot.gov>, noting that pipelines are in most communities and that pipeline safety stakeholders need to increase our awareness of where pipelines are, what services they provide, and the risks associated with them. She described the fact that pipelines are not all the same and that they vary by size, pressure, and commodities transported. Emergency responders need to have the proper knowledge and tools to safely and effectively respond to pipeline emergencies when they happen.

(55:31) Mr. Steve Pott, Chief of Gas Pipeline Safety for the Colorado Public Utilities Commission spoke about the fact that all pipeline safety stakeholders have a safety role to fulfill. Major issues for emergency responders include planning, training, and response considerations. He mentioned YouTube as an excellent resource for

pipeline emergency-related videos. He also noted that training 911 dispatchers is essential to effective pipeline emergency response because they must be familiar with pipeline terminology and know what to do with calls from citizens, pipeline operators, and others. In addition to understanding pipelines and what to do in emergencies, emergency responders should also understand how to respond to tank emergencies. It is important to understand the jurisdictional roles of various responders during pipeline emergency response and that protecting evidence is important for incident investigators.

Panel 2 – Pipeline Operator Perspective

(1:18:36) Ms. Susan Waller, Vice President of Stakeholder Outreach for Spectra Energy, represented the natural gas transmission pipeline operator perspective and opened the panel presentation with a review of regulations pertaining to pipeline emergency response and public education. She discussed the national pipeline network in general, including production and gathering, transmission, and distribution systems. She also discussed the implications of American Petroleum Institute’s (API) Recommended Practice 1162, which pertains to pipeline safety public awareness programs. Ms. Waller provided an overview of Spectra Energy’s pipeline system, emergency responder liaison activities, and Spectra Energy’s non-regulatory outreach activities. She covered the Emergency Response Guidebook and asked for help from the emergency response community in driving down pipeline risk.

(1:35:00) Mr. Bill Thompson, Gas Distribution Operations & Planning, Baltimore Gas and Electric (BGE) represented the natural gas distribution pipeline operator perspective and discussed BGE’s operations and efforts to engage with emergency responders. He discussed regulatory drivers for effective communication between pipeline operators and emergency responders and the fact that such communication makes good economic sense. Mr. Thompson reviewed the Mitigation and Prevention, Preparedness, Response, and Recovery cycle associated with pipeline emergency management strategy. Pipeline incidents on natural gas distribution systems, such as leaks and line breaks from excavation damage, are regular occurrences, but natural gas explosions and fires garner media attention. He stated that pipeline emergency response stakeholders need to simplify training and stressed the importance of face-to-face communication between operators and emergency responders before incidents occur. He also stressed the importance of advanced planning with a focus on understanding infrastructure that is co-located with pipelines.

(1:59:40) Ms. Niki Affleck, Senior Emergency Management Specialist, TransCanada Keystone Pipeline, represented the hazardous liquid transmission pipeline operator perspective and discussed TransCanada’s general operations and the Keystone pipeline. She provided an overview of a typical liquid pipeline emergency response plan and TransCanada’s emergency response process and public awareness outreach program. She stressed the value of the National Pipeline Mapping System as a useful tool for pipeline awareness. Ms. Affleck discussed emergency response initiatives within the Interstate Natural Gas Association of America (INGAA), the American Petroleum Institute (API), and the Association of Oil Pipe Lines (AOPL). Ms. Affleck also outlined some challenges to effective pipeline emergency response, including:

- Education and planning, which must be a give and take process between pipeline operators and emergency responders.
 - Stakeholders need holistic, innovative training and outreach products.
- Natural gas and hazardous liquid pipelines are different and require different emergency response approaches.
- Ensuring emergency safety is an imperative and there need to be good relationships between operators and emergency responders to ensure effective hazard assessments and emergency responses.

(2:12:45) Mr. Larry Hjalmarson, Vice President of Safety, Environmental and Pipeline Integrity, Williams Gas Pipeline provided a case study of the September 2008 Williams Gas Pipeline incident near Appomattox, Virginia. He discussed the importance of radiant heat dosage to emergency responders and the effects on emergency response. He also discussed the timing of natural gas pipeline releases and valve closures, including impacts to life and property, and stated that the Pipelines and Informed Planning Alliance (PIPA) has important implications because the location of people and structures near pipelines increases the potential for loss of life and property. He emphasized the importance of the actions of people in the impact radius of a natural gas pipeline failure in the initial minutes of a response to protecting life. He stated that Interstate Natural Gas Association of America (INGAA) companies are committing to shutting valves within 30 minutes of a rupture and asked emergency responders if that is sufficient for emergency response, given the dissipation of gas and fire after the valves are shut. Mr. Hjalmarson recommended that the industry needs a performance-based rule that ensures that people know what to do in the event of a pipeline emergency, and not that people were simply given information on what to do during an emergency.

Panel 3 – Emergency Response Perspective

(2:32:15) Fire Chief Lanny Armstrong, Pasadena, Texas stressed the vital importance of emergency responders and pipeline operators engaging with each other before pipeline incidents occur. He noted several important issues to emergency responders in pipeline emergencies, including:

- The ability to identify who the pipeline operator is in the event of an emergency.
 - The need for emergency responders to understand pipeline operations terminology, especially in an environment of high turnover in the emergency response community. There has to be regular contact between emergency responders and operators.
- There is a major difference between responding to gas leaks on distribution pipelines versus major transmission pipeline incidents.
 - Emergency responders must not become complacent about pipeline emergencies because of the frequency of natural gas leak calls, which can amount to five or six calls per day in his jurisdiction.
- Emergency responders should leverage one-call organizations (also known as 811 centers or Miss Utility) to better understand who operates which pipelines.
- Emergency responders need to have operator engagement in response to pipeline emergencies in the Unified Command process so that responders can make better decisions.
 - Responders need 24 hour contact information for pipeline operators.
- Responders need to establish control zones based on good instruments that detect vapors.
- Responders need to know what is being transported by the pipeline in question, including Material Safety Data Sheets for the commodities being transported.
- Responders want to know “how much, and how long” the material in question will be actively released from the pipeline.
- Responders need to better understand pipeline valves and how they impact pipeline safety.
- Encroachment of development is a major concern; placing homes and business close to pipeline rights-of-way creates safety risks.

(2:42:38) Fire Chief Dennis Haig, San Bruno, California discussed a California pipeline emergency response forum that convened before the PHMSA Pipeline Emergency Response Forum in the wake of the San Bruno, California natural gas pipeline incident on September 9, 2010. The focus of the California forum was awareness, communication, and training.

- Awareness
 - The National Pipeline Mapping Systems is an essential resource
 - Pacific Gas and Electric developed a secure mapping website for emergency responders that shows pipeline locations, including valves, which is a valuable resource.
 - Notification from pipeline operators regarding upcoming or ongoing work on pipelines (such as maintenance) helps with identifying potential hazards in the community.
 - Pipelines are now included in the San Bruno hazards mitigation plan, which has helped to raise awareness of pipeline risks.
- Communication
 - Direct communications between operators and emergency responders is imperative.
 - Public Safety Answering Points, or 911 centers, are also important; dispatchers should be trained in pipeline emergency response scenarios.
 - Emergency Response Plans are now shared between Pacific Gas and Electric and emergency responders.
 - Communications must include the basics of response to pipeline emergencies.
- Training
 - Pipeline emergency response exercises are valuable, including table top and field exercises.
 - Mobile training facilities may be helpful.
 - Cost of training is an issue and must be considered.

(2:49:12) Battalion Chief Rick Edinger, Chesterfield County, Virginia also stressed the need for better communication between emergency responders and pipeline operators before incidents occur. He addressed some of the gaps in the perceived needs of responders and operators, including the insufficiency of meetings every 18 months between responders and operators. He noted that emergency responders have a responsibility to reach out to operators. A challenge to raising awareness of pipelines among responders is that pipelines are out of sight, out of mind; responders have many responsibilities and pipelines must become more prominent in the minds of emergency responders. Battalion Chief Edinger stated that pipeline operators must engage in the incident command system and unified command during pipeline emergency response.

Question and Answer Session with Audience

(2:53:17) A member of the audience asked about significant lessons learned from past incidents.

Battalion Chief Edinger said that emergency responders tend to not focus low frequency, high consequence incidents because these incidents are not typical. Responders must learn to deal with this fact and elevate pipeline incident awareness in their preparedness approach. Exercises are important, but also time and resource intensive. Training and outreach strategies must be sensitive to the shift-work nature of the fire service.

Fire Chief Haig described a regional training group in San Mateo County, California that schedules training with five other agencies on a six week cycle. The training used to focus on distribution pipelines, but now, after the San Bruno incident, transmission pipelines are incorporated into the training. It takes months to get everyone through the training.

Fire Chief Lanny Armstrong said firefighters spend a lot of time training on other issues besides pipelines. Pipeline training is challenging because major pipeline emergencies are low frequency, high consequence. He noted that if firefighters need hands-on training, as opposed to classroom training, to stay engaged. Classroom training is less effective without exercising. He mentioned many high-quality existing resources, including International Association of Fire Fighters hazardous materials training, the PHMSA/Fire Marshals *Pipeline Emergencies* training, and others. However, many response agencies are unaware that these training resources exist.

A member of the audience asked if pipeline emergency training is voluntary or mandatory for responders.

Deputy Administrator Butters said that, generally, firefighters are required to train to the hazardous materials operations level as defined by National Fire Protection Association (NFPA) standard 472. The more we can integrate pipeline emergency training into the day-to-day training requirements of firefighters, the more successful we will be. Standalone training focused on a specific topic is important, but we need to institutionalize it. Occupational Safety and Health Administration (OSHA) and the Hazardous Waste Operations and Emergency Response (HAZWOPER) are also avenues for institutionalization of pipeline emergency training for emergency responders. To be successful, we need to tie into existing mandatory training for firefighters.

A member of the audience stated that the pipeline industry does conduct considerable outreach through meetings with emergency responders as required by PHMSA regulations and asked if the panel had any suggestions regarding how to make these outreach activities more effective.

Battalion Chief Edinger said that scheduling training at a career department or combination career/volunteer department can take weeks of planning. Scheduling training at all-volunteer fire departments may be even more challenging because of available resources. One-time, periodic meetings are not a good match with fire service needs.

Fire Chief Dennis Haig noted that funding for training is less available now than in the past.

Fire Chief Armstrong said that audiences at meetings like the PHMSA/NAPSR/USFA Pipeline Emergency Response Forum tend to be the same people – middle management and executive level managers, not responders with “boots on the ground”. Attendance at training by rank and file firefighters is heavily dependent upon food and giveaways. “If you feed them, they will come.” However, the current model of training firefighters is often not effective because when asked what they got out of the training, they may respond “a T-bone steak and a bag of goodies”; in these cases, learning is not happening.

A member of the audience asked: What is in the caches of equipment along the pipelines that Ms. Affleck from TransCanada mentioned? How much equipment is in the caches and how far apart are the caches?

Ms. Affleck said TransCanada has procured its own emergency response equipment and stores it in mobile trailers that can be deployed to the scene of a liquid pipeline incident. The trailers store equipment that is essential for waterborne containment and recovery of oil leaks. The trailers are strategically located along the pipeline route based on a risk assessment methodology. Equipment includes absorbent and containment boom, skimming units, storage units for recovered oil, and health and safety equipment for responders.

A member of the audience asked the following question: The people who are impacted by a pipeline emergency (landowners, homeowners, business owners, etc.) knowing what to do when pipeline emergencies occur helps reduce injuries and loss of life. Whose responsibility is it to train people to know what to do when pipeline emergencies occur? How do we train them?

Fire Chief Haig said public awareness of pipeline safety issues is important. There's a fine line regarding who is responsible for public awareness.

Battalion Chief Edinger said public awareness is a shared responsibility. The pipeline industry needs to bring their expertise, but the fire service must also step up to the plate. Pipeline safety must be made elevated to capture the focus and attention of emergency responders and the public. There is a lot of training material that vies for the attention of emergency responders. Pipeline safety stakeholders need to increase the awareness level of pipelines among firefighters and other responders.

Fire Chief Armstrong said that public awareness of pipeline safety is a regional issue. If a region has a high concentration of pipelines, there should be a greater focus on pipeline safety and pipeline emergency response. Responders and operators share the responsibility of pipeline awareness.

Deputy Administrator Butters said pipeline safety public awareness is a joint responsibility. The emergency response/public safety community has a responsibility to understand the risks in their communities and to provide adequate training to responders. Mr. Butters challenged emergency response community to step up and get educated, recognizing that every department will be somewhat different in their approach. Identifying a pipeline safety champion in each department is a good approach. Whatever approach is adopted, it must be sensitive to turnover rates in departments by continually grooming responders to take responsibility for pipeline awareness.

A member of the audience asked: How can we train firefighters more effectively? Industry has been working on this for a long time with limited results.

Battalion Chief Edinger said operators and responders must find common ground and identify the best application of available training resources.

Mr. Hjalmarson, Williams Gas Pipeline, said that a "check the box", prescriptive regulatory approach is not effective. Pipeline regulators and operators need to focus on the effectiveness of program. A performance-based rule for pipeline safety public awareness may be the best approach.

Keynote Address

(3:25:10) Mr. Mike Callan, a twenty year veteran of the fire service, former Captain with the Wallingford, Connecticut Fire Department, and long-standing advocate of hazardous materials and utility safety, provided the keynote speech during the lunch break. Mr. Callan provided the following perspectives:

- The kinds of issues discussed at the Forum are cyclical. The chemical industry has been through this before.
- Pipelines emergencies are so low frequency, so emergency responders do not focus on them. We need to overcome this challenge

- Terminology is an issue for emergency responders and pipeline operators. Terms like *valve*, *NGL*, *LNG*, *HVL*, *transmission*, *gathering*, *distribution*, *MAOP*, *main valve*, *meter station*, and *compressor station* mean different things to different people. Terminology is a hurdle to effective pipeline emergency response.
- The three C's – Communication, Cooperation, Coordination – should guide our efforts.
 - Communication – or “the message” – must be centered in risk-based response.
 - You always need a friend in an emergency. When an emergency occurs, it is too late to establish a good relationship. Relationships must be formed early, be personal, and face-to-face. We must focus on details such as policy, preparedness, etc.
 - Cooperation means sharing resources and working together based on mutual trust between pipeline operators and emergency responders.
 - Coordination
 - Coordination can be challenging because responders are territorial.
 - However, trust is essential. ERs must trust that operators will step up and do their part, including sharing money, resources, etc. for the benefit of public safety.
- Training incentives for emergency responders, like giveaways and food, are essential to encouraging attendance at pipeline operator-sponsored meetings.
 - Keep the message the same, but put it out in as many ways as possible.
 - Deliver the same, concise message to all emergency responders everywhere.
- Leverage existing training.
- We all need to spread the messages of pipeline safety, pipeline emergency response, and public awareness.

Summary of Breakout Session 1: Communications between Emergency Responders and Pipeline Regulators

Emergency Responder Representative: Fire Chief Lanny Armstrong, Pasadena, Texas

Facilitators: Sam Hall and Annmarie Robertson, PHMSA

General Topic: What strategy should be adopted to effectively share general information about pipeline safety between emergency responders and pipeline safety regulators (both state and federal)?

The facilitators used the following series of questions to guide the discussions. However, the discussion did not track perfectly with these questions.

1. How can PHMSA, NAPS, and the pipeline industry improve, package, and disseminate information about available resources such as training, grants, pipeline locations and operators, regulations, etc.?
2. What are the communication pathways to emergency responders and who are the communications gatekeepers? What are the preferred/most commonly used web sites, newsletters, etc.?
3. Ongoing dialogue: What do we need to know from you? How often should we reach out?
4. How do we ensure two-way communications between the ER community and the regulators?
5. What methods of outreach for other safety topics have you found to be most effective? Least effective?
6. What types of communication are effective from agencies that you already work with (state/local emergency management organizations, Federal Emergency Management Agency/USFA, Environmental Protection Agency, etc.)?

7. How do we raise the level of interest in pipeline safety, given that emergency responders have so many safety issues to keep track of?
8. Do incentives work? If so, which ones? What incentives can the government leverage?
9. Ideally, at what fire service/emergency response events should there be PHMSA and/or NAPSRS presence? As attendees, as presenters, booth presence?
10. Are existing regulations for pipeline operators sufficient?

Key Lessons Learned from the Breakout Session 1 Discussion

- It is important to use a variety of approaches to communicate with emergency responders. Possible methods include e-mail blasts, newsletters, magazine articles, and social media.
- Do not rely on emergency responders to visit a web site to seek information. It is far better to deliver information to this audience.
- Use existing networks, organizations and publications for message delivery, including national as well as state and local level networks, if possible. Do not try to create something new. Emergency responders are inundated with information on a daily basis.
- Emergency responders' training and education efforts are driven by events. Use real-life events and scenarios to get attention.
- PHMSA should strongly consider building on a model that already works. Hazardous materials training includes NFPA 472 training. This standard addresses pipelines but can be more fully developed. Incorporating more comprehensive pipeline training into the required hazardous materials training program could address a significant portion of the target audience.
- The CHEMTREC model is also one that works and could be built upon. CHEMTREC was established in 1971 by the chemical industry as a public service hotline for emergency responders, such as fire fighters and law enforcement, to obtain information and assistance for emergency incidents involving chemicals and hazardous materials.
- The group discussed the possibility of PHMSA offering incentives, such as continuing education credits, to encourage emergency responders to seek information about pipelines. Such a system would be difficult to implement because each state has different learning standards/requirements.
- The NPMS is a good source of information; however, awareness and familiarity with the system varies considerably. Among those attendees who use the NPMS, some expressed interest in improving the accuracy and in providing information on Google Earth or a similar system, especially on handheld devices like smart phones. Contacts in the NPMS should be emergency contacts, not public relations contacts.
- With respect to regulatory requirements for pipeline operators, the emergency responders did not provide specific recommendations. There were several comments from this stakeholder group that addressed the importance of face-to-face communications, giving careful consideration to timing of meetings, planning outreach to coincide with drills, providing pre-plan maps that are location-specific and kept current, and knowing the audience – pipelines are much more high-profile in some areas of the country than others. Pipeline operators offered several comments on existing regulations and urged PHMSA to promote consistency in the inspection and enforcement process associated with public awareness regulations.

- The following resources were those mentioned as commonly used by the emergency responder community:
 - NASFM – National Association of State Fire Marshals
 - NVFC – National Volunteer Fire Council
 - IAFC – International Association of Fire Chiefs
 - IAFF – International Association of Fire Fighters
 - NFPA – National Fire Protection Association
 - NFA – National Fire Academy
 - NAFTD – North American Fire Training Directors
 - IAEM – International Association of Emergency Managers
 - Publications: Firehouse, Fire Chief, FireRescue

Summary of Breakout Session 2: Pipeline Emergency Training for Emergency Responders

Emergency Responder Representative: Battalion Chief Rick Edinger, Chesterfield County, Virginia

Facilitator: Robert Neale, Deputy Superintendent, National Fire Academy

General Topic: What strategy should be adopted to ensure that emergency responders receive adequate pipeline emergency training?

The facilitators used the following series of questions to guide the discussions. However, the discussion did not track perfectly with these questions.

1. Who needs pipeline emergency training? Firefighters, EMTs, 911 operators, who else?
2. How are emergency responders (e.g., firefighters) trained?
3. Who identifies the foundational training requirements (i.e., national organizations, state organizations, and/or local organizations)?
4. What constitutes “foundational” pipeline emergency training for emergency responders? Who makes that decision? For example, PHMSA and NASFM have produced a comprehensive training curriculum called “Pipeline Emergencies”. Should we identify the most crucial elements of this training as “foundational” or “fundamental”?
5. What are the differences between training programs for volunteer emergency responders versus career emergency responders? Should our strategy differ for each of these groups?
6. What standards or additional training could be developed or built upon to ensure emergency responders receive a foundational understanding of pipeline emergency preparedness and response?
7. Can/should pipeline safety regulators seek to *require* pipeline emergency training for ERs?
8. Emergency responders are required to attain continuing education credits. Who comes up with the continuing education requirements? How can we structure pipeline emergency training materials to satisfy the requirements for continuing education credits?
9. What are the barriers to providing pipeline emergency training to emergency responders?
10. Some operators have indicated that some emergency responders do not take advantage of pipeline-specific training offered by pipeline operators. Why? What can operators do to entice more emergency responders to attend these training sessions? For example, could emergency responders receive continuing education credits for attending meetings?

Key Lessons Learned from the Breakout Session 2 Discussion

- The following parties should receive some form of pipeline emergency response training:
 - Police officers because they may be first on the scene of a pipeline emergency
 - County EMA officials and other administrative officials between the state and first responders
 - Community watch groups/grass-roots organizations
 - Public works departments because they may be called upon to provide equipment and other resources
 - Other agencies that may be involved in the response (e.g., public health departments)
 - Mayors and other elected officials because they typically respond to the site
- Emergency responders currently receive pipeline emergency training through personal visits and other instructional materials from pipeline operators or private companies contracted by pipeline operators to deliver the training. Pipeline operators are required by federal and state regulations to deliver these training sessions to emergency responders.
- Training should be bi-directional between emergency responders and pipeline operators. Emergency responders need to understand the basics of pipeline operations, including jargon. Pipeline operators need to understand fire industry jargon and how communication works in a first responder scenario so all parties can all work together when an emergency occurs. Inviting pipeline operators to fire/first responder training can help operators understand what they need from emergency responders, and vice versa.
- There are both differences and similarities between training programs for volunteer emergency responders and career emergency responders.
 - In both cases, time and resources are tight: career emergency responders have limited budgets and it is very difficult for them to get everyone through a training session with scheduling constraints. Volunteers have very few resources and any such training is typically above and beyond their regular volunteer responsibilities and on their personal time.
 - In both cases, it is difficult for fire stations to make time for one pipeline operator a year, much less three or four pipeline operators. Many operators duplicate efforts by reviewing pipelines basics. Pipeline operators as well as emergency responders would like a consolidated message regarding pipeline basics so that operators can focus on their specific pipeline's details and the relationship between the responders and the operators during the one-on-one time they do have together. Pipeline operators would like to get credit for the outreach to the first responders when they work together with other pipeline operating companies; this would promote cooperation, efficiency and consistency in education.
- Both volunteer and career emergency responders like sun visor cards in their vehicles for the few lines in their areas. These visor cards should be laminated and large enough to read in a scenario but also small enough to be stored in every volunteer's vehicle. They need to include the proper emergency contact for pipeline operators. The visor cards should be picture-oriented and explain what to do and what not to do during a pipeline emergency, similar to the safety cards on airplanes.
- Volunteers may need to feel/hear that pipeline emergency response information will save their lives. Otherwise, they may not view the information as worth their time.
- Rural volunteer departments can have literacy issues, which can make it particularly difficult to convey risk and response information.
- Training strategies should also differ for different people/positions within volunteer and career groups and be tailored to their specific roles and responsibilities.

- Training should be regionalized/localized to improve efficiency and effectiveness (e.g., the needs of the New York Fire Department and rural volunteers are different). Objectives should be outlined for different emergency responder roles as well.
- In addition to training, emergency responders want pipeline operators to regularly communicate what they are doing on the pipeline, what problems they are finding, and where. Such information is not only helpful if an event occurs, but it also gets the emergency responders interested and informed about risk.
- While online training and videos are better than no training because they are accessible and modular, face-to-face/classroom training is still highly valued by emergency responders.
- Emergency responders need to know what pipeline operators want them to specifically do and not do (e.g., should emergency responders touch valves or not?).
- Some emergency responders suggested that pipeline operators might train emergency responders with a mobile training unit (like a flatbed truck) with some pipeline emergency examples and experiences on board. This approach might be a better than investment in a permanent facility that emergency responders cannot visit due to time and resource constraints.
- To emergency responders, it is more important to focus on how to react to a pipeline emergency than on the experience of a pipeline explosion. Pipeline operators should focus on the type of environment emergency responders can expect, how long a fire can be expected to burn, how to keep people safe during a pipeline emergency, etc.
- Training should mention the National Pipeline Mapping System as a resource for information about pipeline locations for emergency responders.
- Understanding line markers and how to determine who operates a pipeline is very important to emergency responders.
- Emergency responders want information about tanks as well as pipelines.
- Generally, pipeline safety regulators should seek to require pipeline emergency training for emergency responders, which may help promote a consistent and standard message. However, emergency responders' pipeline emergency training needs are not consistent, so national emergency responder training standards would need to take this into consideration. Pipeline regulators, pipeline operators, and emergency responders need to collaborate on the development of pipeline emergency training standards for emergency responders.
- The biggest barrier to providing pipeline emergency training to emergency responders is the limited nature of emergency responders' time and resources. Again and again, emergency responders and pipeline operators say they want outreach from the pipeline industry to be consolidated so industry representatives do not have to compete for emergency responders' time. Consolidated outreach would also reduce the repetition of basic information that emergency responders receive from pipeline operators.
- Some fire departments are not properly certified and do not comply with training requirements.
- Pipeline emergency training should be engaging and modular, especially to reach volunteers.
- One suggestion was to engage younger volunteers with video game simulations on smart phones or short videos on YouTube.
- Scenario focused training is interesting and more desirable for ERs. Regarding scenario based training: operators said they don't want to air their dirty laundry, but first responders said they can genuinely learn from reviewing a real scenario.
- Emergency responders want continuing education credits for attending training; fire departments want grants for attending and conducting training.

- When pipelines operators say pipelines are safe in their brochures and other materials, it makes emergency responders feel that pipeline emergency training is not necessary. The pipeline industry needs to be more serious about risks in order to be taken seriously by emergency responders, which would lead to more interest in training.
- Trainers sometimes bloat courses with unnecessary information that makes the training less interesting/desirable to emergency responders, who want training to be simple and straight-forward. An example was airplane safety brochures; they don't sugar coat the message and are very effective with pictures that communicate what to do and not to do.
- Pipeline operators should train some emergency responders to become subject matter experts so that the emergency responders can share information among themselves.
- It was suggested that a "job swap" day could be an effective means of training; emergency responders and pipeline operators could shadow one another and learn about each others' operations.

Summary of Breakout Session 3: Communications between Emergency Responders and Pipeline Operators

Emergency Responder Representative: Fire Chief Dennis Haag, San Bruno, California

Facilitators: Christie Murray and Julie Halliday, PHMSA

General Topic: What strategy should be adopted to effectively share information about pipeline safety between emergency responders and pipeline operators (taking into account existing regulations)?

The facilitators used the following series of questions to guide the discussions. However, the discussion did not track perfectly with these questions.

1. Who do you envision when you hear "emergency responder"? Do you consider the 911 operator? What contact information does 911 need?
2. If 911 is used in your awareness material, what level of confidence do you have that the 911 dispatcher knows it is your pipeline?
3. How do operators determine with whom they need to have liaison (e.g., fire, police, etc.)? How do you maintain your emergency response "liaison" relationship and contact information?
4. Is there a central location for operators to find emergency responder contact information?
5. Do you find the information that is being communicated to you of value? If not, what information would be helpful? What format/communication channel is most effective for you?
6. How do we overcome the perception in some communities that pipelines are a low priority because major pipeline incidents are low frequency (although high consequence) events?
7. Have emergency responders assessed their capabilities and identified gaps in their ability to respond to pipeline emergencies? How do operators find out the capabilities of the emergency responders to respond to pipeline emergencies? What do operators and emergency responders do with this information?
8. What preventive tools or mechanisms can the emergency response community implement to reduce the risk of pipelines to people, property and the environment?
9. How do we leverage lessons learned about communication efforts from other pipeline emergencies?
10. Is there a role for public involvement? If so, what is it?

Key Lessons Learned from the Breakout Session 3 Discussion

- A variety of stakeholders were identified as part of the emergency response community, including: firefighters, police, ambulatory, 911 Call Centers, 811 call centers, U.S. Coast Guard, county emergency officials, emergency medical service (EMS), pipeline operators, public, oil spill response organizations, utilities such as electric and water, mutual aid organizations, Environmental Protection Agency (EPA) and state departments of environmental protection (or their equivalents).
- There is a distinction between first responders, second tier responders, and emergency responders.
- 911 operators may not have adequate information or resources to identify the operator of a specific pipeline. The 911 personnel may not be familiar with pipeline industry terminology.
- When an accident site is close to a jurisdictional boundary between fire departments, a determination may need to be made as to which department can reach the site first.
- The operator of a pipeline may be unknown to the caller and the 911 operator. Pipeline corridors may contain pipelines operated by multiple pipeline operators. An option for the 911 operator to facilitate identification of the operator of the pipeline involved in the emergency may be to call 811. Not all 811 call centers operate continuously. 811 should be included in emergency drills.
- 911 operators are typically involved for the first few minutes until the emergency responders have been mobilized. The incident command system dictates response operations.
- Callers and the 911 operator need to communicate clearly to promote an effective and timely response. The 911 operator needs to develop a clear understanding of the emergency by ascertaining key information. The 911 operator should request the following information from the caller: caller's phone number, name of pipeline operator and contact information if available, weather conditions, pipeline location, type of product, presence of a vapor cloud, physical characteristics of the situation (what do they see, hear, or smell), abnormal operating procedures, and immediate needs (i.e. fire and rescue, medical, traffic control, etc).
 - 911 operators should be equipped with specific guidelines or questions to ask in particular situations. The objective is to dispatch the right resources and equipment. The call center should develop guide material for operators to instruct callers on appropriate actions they should take (e.g., evacuate away from the danger, do not introduce ignition sources such as a cell phone, light switch, or fire alarm). The procedures should include information that medical dispatchers need to triage the call. Questions may be tiered for specific types or sizes of pipeline emergencies. A decision tree may be useful to obtain the required information for an optimal response.
- Emergency responders and 911 operators can access the National Pipeline Mapping System to obtain information about a pipeline and its operator. However, the NPMS may not contain enough detail to develop a tactical response plan. Contact information in the NPMS may not be current and it may not contain the operator's emergency contact.
- In an emergency, pipeline operators may directly call emergency responders with whom they have an established relationship. The criteria pipeline operators use to determine when to call 911 is operator-specific. The criteria they use to determine when to call the National Response Center is standardized.
- Emergency responders often trust pipeline operators to determine when 911 should be contacted. However, that trust is broken when pipeline operators do not contact 911 when they should. Emergency responders want pipeline operators to err on the side of caution when determining when to call 911. The response provides a training opportunity for the emergency responders.

- Pipeline operators indicate that emergency response officials are contacted at least annually – through invitations to drills, mailings, emails, faxes, peer-to-peer contact, and LEPC and other meetings – but some operators try to maintain liaison more frequently. Some pipeline operators leverage field personnel who are volunteer emergency responders or who have established relationships with emergency response officials. The number of emergency responder organizations and emergency responders within a pipeline operator’s area of operations may be very large. One operator stated that the 12,000 miles of pipeline they operate impacts 12,000 fire fighters. It is a challenge to reach them all.
- Invitations that pipeline operators send to emergency responders for pipeline emergency training or awareness sessions may not be descriptive enough to gain an emergency responder’s attention. Operators may want to identify who they seek to attend (i.e., training officer/ fire chief).
- Effective tools to build relationships with emergency responders are email, providing presentation materials, pipeline operator donations to support emergency response operations, training and presentations over lunch/dinner, and joint emergency drills.
- Contact information for pipeline operators and emergency responders should be updated periodically. No central emergency responder contact database currently exists. Sources of emergency responder contact information vary among states. The information stored and the frequency with which it is updated also varies. The information may be a fire chief’s personal contact information or their fire department’s contact information.
- Several sources of emergency responder information were identified. Land grant universities perform outreach with local governments and may have databases that pipeline operators can utilize. Another method to obtain local emergency response contact information is to start at the state level and drill down to the local level.
- The *Third Needs Assessment of the U.S. Fire Service* published by the National Fire Protection Association (NFPA) in June 2011 is based on a recent survey of the U.S. Fire Service. The report contains information pertinent to this topic.
- Emergency responders do not want an operator’s entire emergency response plan. A two-page guide with contacts and specific, pertinent information would be ideal. The two-page guide should provide the information the emergency responder at the site needs to know in the first 30 minutes of an emergency.

Addendum 1: Forum Agenda

U.S. Department of Transportation Pipeline Emergency Response Forum Agenda DOT Headquarters, West Atrium, Washington, DC

December 9, 2011

Agenda

Purpose: Convene a meeting of leaders in the emergency response community, the government, the pipeline industry, and the interested public to solicit professional advice that will inform the development of a strategy for improving emergency responders' ability to prepare for and respond to pipeline emergencies.


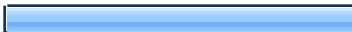

- 8:00 AM **Welcome and Introduction** | Cynthia Quarterman, PHMSA Administrator
- 8:05 AM **Forum Opening Remarks** | Ray LaHood, U.S. Secretary of Transportation
- 8:15 AM **USFA Opening Remarks** | Robert Neale, Deputy Superintendent, National Fire Academy
- 8:20 AM **NAPSR Opening Remarks** | Don Stursma, Manager, Iowa Utilities Board
- 8:25 AM **Forum Goals and Objectives** | Timothy Butters, PHMSA Deputy Administrator
- 8:30 AM **Regulator Perspective**
- Linda Daugherty, PHMSA Deputy Associate Administrator for Pipeline Safety
 - Steve Pott, Chief of Gas Pipeline Safety, Colorado Public Utilities Commission
- 9:15 AM **Pipeline Operator Perspective**
- Bill Thompson, Baltimore Gas & Electric, Gas Distribution
 - Niki Affleck, TransCanada, Hazardous Liquid
 - Susan Waller, Spectra Energy, Gas Transmission
- 10:00 AM ~~~ **BREAK** ~~~
- 10:15 AM **Emergency Responder Perspective**
- Fire Chief Dennis Haag, San Bruno, CA
 - Battalion Chief Rick Edinger, Chesterfield County, VA/IAFC Hazardous Materials Committee
 - Fire Chief Lanny Armstrong, Pasadena, TX
- 11:15 AM **Instructions for Breakout Sessions** | Tim Butters, PHMSA
- 11:30 AM **Lunch Speaker** | Mike Callan, Emergency Planning, Response and Safety
(box lunch provided - attendees must remain in DOT building)
- 12:30 PM **Facilitated Breakout Sessions** – Breakout groups progress through each session for 1 hour
- 4:00 PM **Reports from Breakout Sessions**
- Breakout Session 1: Fire Chief Lanny Armstrong, Pasadena, TX
 - Breakout Session 2: Battalion Chief Rick Edinger, Chesterfield County
 - Breakout Session 3: Fire Chief Dennis Haag, San Bruno, CA
- 4:45 PM **Forum Closing Remarks** | Tim Butters, PHMSA

Addendum 2: Post-Forum Feedback



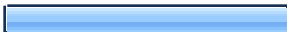
1. Which of the following stakeholder groups do you represent?			
		Response Percent	Response Count
Pipeline Industry		40.7%	24
Government		18.6%	11
Public Safety / Emergency Response		27.1%	16
Media		0.0%	0
Other (please specify)		13.6%	8
		answered question	59
		skipped question	0

2. I participated:			
		Response Percent	Response Count
In person		47.5%	28
Via webcast		52.5%	31
		answered question	59
		skipped question	0



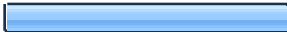
3. How satisfied were you with the registration and check-in process?

		Response Percent	Response Count
Dissatisfied		1.7%	1
Satisfied		52.5%	31
Very Satisfied		45.8%	27
answered question			59
skipped question			0


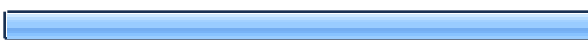

4. Overall, how satisfied were you with the speakers/presenters?

		Response Percent	Response Count
Dissatisfied		1.7%	1
Satisfied		55.9%	33
Very Satisfied		42.4%	25
answered question			59
skipped question			0



5. Overall, how satisfied were you with the forum facilities?

		Response Percent	Response Count
Dissatisfied		3.4%	2
Satisfied		54.2%	32
Very Satisfied		42.4%	25
answered question			59
skipped question			0



6. Did you feel the length of forum breakout sessions were too long, just about right, or too short?

		Response Percent	Response Count
Too long		8.5%	5
Just about right		88.1%	52
Too short		3.4%	2
answered question			59
skipped question			0


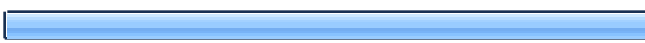
7. The topics/content of forum sessions was appropriate and informative.

		Response Percent	Response Count
Disagree		3.4%	2
Agree		96.6%	57
answered question			59
skipped question			0




8. The forum was well organized.

		Response Percent	Response Count
Disagree		5.1%	3
Agree		94.9%	56
answered question			59
skipped question			0



9. The webcast was a beneficial or effective way to participate in the forum for people who could not attend in person.

		Response Percent	Response Count
Disagree		3.4%	2
Agree		96.6%	57
answered question			59
skipped question			0

10. How would you rate this forum compared to other forums of this type that you have attended?

		Response Percent	Response Count
Poor		1.7%	1
Average		47.5%	28
Excellent		50.8%	30
answered question			59
skipped question			0

11. Did the forum meet your expectations? If not, please explain.

		Response Percent	Response Count
No		8.6%	5
Yes		91.4%	53
Comments			16
answered question			58
skipped question			1

12. What did you like most about the forum?**Response
Count**

38

answered question**38****skipped question****21****13. What did you like least about the forum?****Response
Count**

35

answered question**35****skipped question****24****14. Do you have any recommendations / suggestions for improvement?****Response
Count**

34

answered question**34****skipped question****25**

Q1. Which of the following stakeholder groups do you represent?

1	research	Jan 20, 2012 12:00 PM
2	Pipeline Industry and Emergency Response	Jan 20, 2012 9:26 AM
3	Emergency response contractor	Jan 19, 2012 11:16 AM
4	technical researcher and analyst	Jan 19, 2012 10:33 AM
5	Distribution Company	Jan 19, 2012 10:14 AM
6	Consultant	Jan 19, 2012 10:02 AM
7	State Level Emergency Responder Training	Jan 19, 2012 8:52 AM
8	Banking facilities near pipelines- safety	Jan 19, 2012 8:35 AM

Q11. Did the forum meet your expectations? If not, please explain.

1	Actually exceeded my expectations.	Jan 31, 2012 10:42 AM
2	Suggest to shorten the length of time given to speakers in AM so more time could have been spent on the breakout sessions. I felt breakout sessions were good but by time group was addressing issues it was time to move on.	Jan 30, 2012 9:34 AM
3	I have set through something like this in the past in Washington State so it was more a refresher. Good information though and something we would want to discuss doing here	Jan 23, 2012 10:24 AM
4	Yes but nothing "new" was presented.	Jan 20, 2012 6:47 AM
5	Provided relevant "industry" perspectives on practices and policies relating to pipeline safety.	Jan 19, 2012 12:08 PM
6	While the presentations were interested and informative, there was no indication of a path forward that would act on the information received.	Jan 19, 2012 9:57 AM
7	Being left out of the breakouts and little followup after they were finished left me in the dark about how the needs and future direction.	Jan 19, 2012 8:52 AM
8	The forum was too global in nature and did not focus stakeholders on key issues. It began a network and dialogue on numerous issues. If the forum's purpose was unclear and not focused.	Jan 19, 2012 8:39 AM
9	Would have appreciated a written feedback of issues discussed in forums as it was a very quick recap and not very rich in what was likely the most beneficial part of the webcast.	Jan 19, 2012 8:39 AM
10	Well done	Jan 19, 2012 8:35 AM
11	Webcast allowed for me to participate. Budget limitations prevent travel to this type of event.	Jan 19, 2012 8:25 AM
12	Seemed that people from each group were closed minded, and did not want to hear what the other side had to say.	Jan 19, 2012 8:23 AM
13	I think all the right stakeholders were involved and addressed all the right questions. The question that remains to be seen is whether PHMSA will listen and act on this information?	Jan 19, 2012 8:20 AM
14	I wish that I could have participated in the breakout sessions.	Jan 19, 2012 8:19 AM
15	I'm hoping to see follow-up notes on the results of our breakout sessions.	Jan 19, 2012 8:18 AM
16	I loved that we were able to talk to the ER's face to face about the pipeline incidents. And ask what we could do to help them better prepare for such an event.	Jan 19, 2012 8:14 AM

Q12. What did you like most about the forum?

1	No way to participate in breakout sessions via webcast.	Feb 1, 2012 3:03 PM
2	I thought having people from the pipeline community, regulatory agencies and emergency response agencies in each of the breakout groups was very beneficial. Each group has their concerns/issues and this enabled an excellent way to provide meaningful interaction with the others present.	Jan 31, 2012 10:42 AM
3	There was a broad range of interests represented at the forum, which I attribute to the excellent job that the organizers did of publicizing the event.	Jan 30, 2012 1:52 PM
4	Presentation on explosion and lessons learned from the Appomatox (?) VA explosion a couple years ago. The graphs depicting BTU levels after explosion and how this would effect a response from firefighters was very good. Liked break-out session format and how it was facilitated.	Jan 30, 2012 9:34 AM
5	Having representation from all facets (Government, Industry, & local Emergency Responders) at the forum made it simple to hear all concerns, opinions, etc., regarding emergency response.	Jan 26, 2012 8:11 AM
6	Preliminary material presented via internet	Jan 26, 2012 7:55 AM
7	Providing the chance for all stakeholders to participate and open channels of communication was very beneficial.	Jan 23, 2012 10:50 AM
8	Mike Callan. He's a good friend and it's always good to hear from him. Tim Butters was excellent as well	Jan 23, 2012 10:24 AM
9	Industry and responders meeting together to discuss the issues	Jan 23, 2012 5:20 AM
10	The breakout sessions.	Jan 20, 2012 9:26 AM
11	Variety of presentations.	Jan 20, 2012 7:32 AM
12	break out sessions	Jan 20, 2012 7:29 AM
13	Being able to attend via webcast, and hearing from top-level speakers.	Jan 20, 2012 6:47 AM
14	The opportunity to discuss the issues with all relevant parties in the same location	Jan 20, 2012 5:19 AM
15	Use of web based delivery system to facilitate a larger and increased scope of audience participation.	Jan 19, 2012 12:08 PM
16	Presentations with case history, photos, graphs, examples of previous incidents and response.	Jan 19, 2012 11:56 AM
17	Very good representation by the pipeline industry, government, and first responders.	Jan 19, 2012 11:16 AM
18	Appropriate speakers. Short and relevant presentations. Good audio visual-- easy to see and hear.	Jan 19, 2012 10:33 AM
19	Broad areas our industry participation	Jan 19, 2012 10:14 AM

Q12. What did you like most about the forum?

20	Very professionally run, well organized, great speakers. The location and facility were outstanding.	Jan 19, 2012 10:02 AM
21	Captured in Questions 3-10	Jan 19, 2012 9:57 AM
22	Great topics.	Jan 19, 2012 9:36 AM
23	Opportunity to learn interact with other in this business. Case studies were powerful.	Jan 19, 2012 9:06 AM
24	General session content	Jan 19, 2012 8:52 AM
25	The ability to network with various stakeholder audiences.	Jan 19, 2012 8:39 AM
26	Informative and opportunity to hear experts share perspective.	Jan 19, 2012 8:39 AM
27	topic	Jan 19, 2012 8:35 AM
28	The Williams presentation was very good.	Jan 19, 2012 8:26 AM
29	Available by webcast. Presentations by senior FDOT officials.	Jan 19, 2012 8:25 AM
30	It got groups together to discuss safety	Jan 19, 2012 8:23 AM
31	The speakers were very informative. I especially enjoyed hearing from the gentleman from Williams who spoke about the incident in Appomattox, VA. It really put the intensity of a gas line incident into perspective.	Jan 19, 2012 8:21 AM
32	The quality of the stakeholder representation and the forum topics. I believe the forum was inviting to open discussion and information sharing.	Jan 19, 2012 8:20 AM
33	Stakeholder discussions	Jan 19, 2012 8:19 AM
34	That I could attend through the webcast	Jan 19, 2012 8:18 AM
35	Allowed all stakeholders to speak openly and honestly about issues and challenges while discussing solutions.	Jan 19, 2012 8:18 AM
36	Face to face.	Jan 19, 2012 8:14 AM
37	Breakout sessions were well organized and the fact is everyone got a chance to participate in all of them.	Jan 19, 2012 8:14 AM
38	Presentations, and question and answer session	Jan 19, 2012 8:13 AM

Q13. What did you like least about the forum?

1	Technical difficulties in presentations. Having the event on a Fri. in Dec. in WA DC. Relatively short notice for meeting event.	Feb 1, 2012 3:03 PM
2	N/A	Jan 31, 2012 10:42 AM
3	I thought it went a little too long. The speakers were good but as the day went on people were having to leave and as a result there were fewer there to participate in the stakeholder groups.	Jan 30, 2012 1:52 PM
4	Too many folks talking in morning repeating similar messages ... could have shortened number and length of government officials talking.	Jan 30, 2012 9:34 AM
5	Nothing comes to mind.	Jan 26, 2012 8:11 AM
6	Had some connectivity problems. My have been on my end	Jan 26, 2012 7:55 AM
7	Breakout sessions were not available via webcast.	Jan 23, 2012 10:50 AM
8	No coverage for the break out sessions	Jan 23, 2012 10:24 AM
9	Travel to Washington DC	Jan 23, 2012 5:20 AM
10	Throughout the day, I lost connection to the webcast.	Jan 20, 2012 10:31 AM
11	The notion that Regulators can enforce Operators' efforts to force local responders to become more "capable" of emergency related issues.	Jan 20, 2012 7:32 AM
12	I didn't think the morning presentations were all relevant to the subject.	Jan 20, 2012 7:29 AM
13	Not being able to participate in the break-out sessions.	Jan 20, 2012 6:47 AM
14	No comment	Jan 19, 2012 12:08 PM
15	All text presentations.	Jan 19, 2012 11:56 AM
16	It was difficult to meet people during the morning session, but that is a common issue that is hard to overcome. The breakouts helped with that a lot.	Jan 19, 2012 11:16 AM
17	I wish that there were less technical diffulcuties with the presentations.	Jan 19, 2012 10:14 AM
18	No negative remarks.	Jan 19, 2012 10:02 AM
19	Captured in Question 12	Jan 19, 2012 9:57 AM
20	Unable to view a break out session.	Jan 19, 2012 9:36 AM
21	It seems to take a long time to introduce everyone.	Jan 19, 2012 9:06 AM
22	Breakouts	Jan 19, 2012 8:52 AM
23	The forum was not organized to provide meaningful discussion and dialogue.	Jan 19, 2012 8:39 AM
24	Difficult to gain much from the breakout sessions when participating via webcast	Jan 19, 2012 8:39 AM

Q13. What did you like least about the forum?

25	There were problems with having the right presentation available for the speaker and this took away from the forum.	Jan 19, 2012 8:26 AM
26	Not sure we made any headway	Jan 19, 2012 8:23 AM
27	While the breakout sessions were informative and very interactive, we went to each session with the same group, so questions and concerns were a bit repetitive. It might have been more beneficial to switch up groups per session to hear different perspectives.	Jan 19, 2012 8:21 AM
28	Friday, in DC, going into the holiday season was very bad. It was very inconvenient and expensive to travel to this location during this time. Not to mention it was incredibly difficult finding a flight back home on a Friday night.	Jan 19, 2012 8:20 AM
29	Not being able to participate in the breakout sessions.	Jan 19, 2012 8:19 AM
30	Breakout sessions were not included in the webcast	Jan 19, 2012 8:18 AM
31	I wish we had more first responders. Next time maybe we do a webinar and consider hosting on a Saturday so we can have volunteer firefighters participate.	Jan 19, 2012 8:18 AM
32	That it was on a Friday. I had to leave an hour early and missed the final session.	Jan 19, 2012 8:14 AM
33	The general sessions were a little large for there to be much question and answer, additionally the questions from the web folks could not be discussed thoroughly.	Jan 19, 2012 8:14 AM
34	Length	Jan 19, 2012 8:13 AM
35	Nothing. It was just right	Jan 19, 2012 8:12 AM

Q14. Do you have any recommendations / suggestions for improvement?

1	Perhaps conduct annually, not in DC and give 3 months notice. Midweek meeting with meet and greet pm of the previous day. 1/2 day session.	Feb 1, 2012 3:03 PM
2	N/A	Jan 31, 2012 10:42 AM
3	Spend more time be allotted to break-out sesssions.	Jan 30, 2012 9:34 AM
4	None	Jan 26, 2012 8:11 AM
5	No	Jan 26, 2012 7:55 AM
6	Provide a way for webcast participants to participate in, or at least monitor the breakout sessions. Audio only would be sufficient. Also, splitting the screen for the webcast showing both the speaker and the presentation would help.	Jan 23, 2012 10:50 AM
7	These types of things should be done with some frequency (maybe once a year) rather than waiting until problems arise.	Jan 23, 2012 5:20 AM
8	See if others had connection issue that can be address prior to future webcasts..	Jan 20, 2012 10:31 AM
9	I would have liked to see emergency responders present from smaller more rural areas, to represent emergency response groups other than large emergency response agencies.	Jan 20, 2012 9:26 AM
10	Work through someone like NSFMA to require more from local responders.	Jan 20, 2012 7:32 AM
11	Provide more specific direction for industry.	Jan 20, 2012 6:47 AM
12	Although NAPSRS was represented, I think it would have been beneficial to have had more state pipeline regulators in attendance.	Jan 20, 2012 5:19 AM
13	On line participation of a specific workshop and the ability to ask questions by email during the question and answer session of the specific workshop.	Jan 19, 2012 12:08 PM
14	No recommendations.	Jan 19, 2012 11:44 AM
15	no	Jan 19, 2012 11:36 AM
16	Maybe consider organizing a social event the evening before the forum or immediately after to encourage more networking.	Jan 19, 2012 11:16 AM
17	I would have liked to follow up with some of the speakers, but when I requested contact information from the Forum administrators, I was not given the information.	Jan 19, 2012 10:33 AM
18	PHMSA should have events like this annually, perhaps with slightly different focus. For example, a forum on pipeline response planning.	Jan 19, 2012 10:02 AM
19	As noted in Q12, now what? Make presentations publicly available promptly - strike while the iron is hot.	Jan 19, 2012 9:57 AM
20	Webcast at least one of the breakout sessions.	Jan 19, 2012 9:36 AM
21	I think this was a very good meeting.	Jan 19, 2012 9:06 AM

Q14. Do you have any recommendations / suggestions for improvement?

22	Find a way to involve the website attendants or at least keep the informed	Jan 19, 2012 8:52 AM
23	Instead of numerous issues being discussed, 2-3 high priority issues should be focus of forum. There should be a "desired outcome" such as a strategy, roadmap for resolution or action plan.	Jan 19, 2012 8:39 AM
24	Provide written summary of breakout sessions for participants (will also go to PHMSA website to see if something is posted)	Jan 19, 2012 8:39 AM
25	More and more often	Jan 19, 2012 8:35 AM
26	Continue to follow agenda schedule. Carefully following the schedule allowed me to participate in the parts most applicable to my job.	Jan 19, 2012 8:25 AM
27	Additional meeting to share any changes that have worked.	Jan 19, 2012 8:23 AM
28	Better location and timing. Somewhere like Houston or Dallas is central to all parts of the country, and is also in the region where a large percentage of pipelines are located.	Jan 19, 2012 8:20 AM
29	Not being able to participate in the breakout sessions.	Jan 19, 2012 8:19 AM
30	Add all aspects of the program to the webcast. Great program and information sharing on a very important topic for emergency responders!	Jan 19, 2012 8:18 AM
31	I think we need to take action on the recommendations that came from the forum such as developing a national coalition that can address the challenges operators and firefighters face when engaging with each other, e.g. should we have regional open houses that provide first responders and operators to meet -- much like the state one-call centers do with excavators.	Jan 19, 2012 8:18 AM
32	It was perfect other than being on a Friday.	Jan 19, 2012 8:14 AM
33	Pick one or two key topics from the breakout session, and perhaps focus the next forum on fixing that issue. This follows the one bite at a time theory.	Jan 19, 2012 8:14 AM
34	None at this time	Jan 19, 2012 8:12 AM