Pipeline Emergency Preparedness & Training: PHMSA Pipeline Emergency Response Forum—Enhancing Communications Between Responders and Pipeline Operators

On December 9, 2011, the Pipeline & Hazardous Materials Safety Administration (PHMSA), the National Association of Pipeline Safety Representatives (NAPSR), and the United States Fire Administration (USFA) hosted a “Pipeline Emergency Response Forum” in Washington, D.C. The purpose of the meeting was to develop strategies for improving emergency responders’ ability to prepare for and respond to pipeline emergencies. In addition to over 150 individuals in attendance, the forum was webcast and viewed by over 200 interested parties.

Speakers for the event included the Honorable Ray LaHood, U.S. Secretary of Transportation, Ms. Cynthia Quarterman, PHMSA Administrator, and Mr. Robert Neale, Deputy Superintendent of the National Fire Academy who provided opening comments and discussed the need for the meeting. Recent pipeline incidents, most notably the pipeline rupture in San Bruno, California in September of 2010, highlighted the need to review current practices for communication between pipeline operators and emergency responders, and to address the need for improvements in this process.

Perspectives were provided by those agencies that regulate pipelines at the federal and state level, as well as representatives from the hazardous liquid, natural gas transmission, and natural gas distribution sectors. Also, emergency officials from San Bruno, California, Chesterfield County, Virginia, and Pasadena, Texas, provided insight from the emergency response community’s perspective.

During the afternoon, three breakout sessions were held entitled: “Communications between Emergency Responders and Pipeline Regulators”, “Pipeline Emergency Training for Emergency Responders”, and “Communications between Emergency Responders and Pipeline Operators”. The purpose of these breakout sessions was to discuss a variety of issues at the tactical level focusing on ideas related to enhancing training and communications. From issues such as “How can PHMSA, NAPSR, and the pipeline industry improve, package, and disseminate information about available resources such as

Keeping Pipelines Safe/Practices & Protocols: Pipeline Locating

So how do you find a natural gas or hazardous liquids pipeline that was buried underground some time ago without disturbing the soil and ensure you are accurate enough that excavation or construction activity can occur safely? Line locating is a task performed by trained and skilled pipeline operations professionals many times a day. While arguably an art as much as it is a science, pipeline locating is accomplished using electronic devices that employ a

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training, grants, pipeline locations and operators, regulations, etc.” and “What are the barriers to providing emergency training to emergency responders?“ to “How do we leverage lessons learned about communications efforts from other pipeline emergencies?” were discussed by participants. At the conclusion of the breakout sessions, facilitators briefed the larger audience on discussions, conclusions and key takeaways. In addition it was proposed that regional meetings, similar in nature to this one may be conducted around the country to further enhance dialogue with emergency responders on a more local level.

Kinder Morgan had representation at the Forum and is actively tracking information that will be forthcoming from the meeting. Through communications vehicles such as The Responder, face-to-face meetings and future meetings such as the December 9th meeting, Kinder Morgan seeks to take advantage of opportunities to enhance communications and relationships with our partners in pipeline safety...you, the emergency response community.

For more information about the Forum or to view an archived version of the webcast and presentations, please visit: http://opsweb.phmsa.dot.gov/pipelineforum/pipeline_emergency_response_forum/index.html

Pipeline Emergency Response Tactics: Emergency Site Management & Control

Upon arrival at a pipeline emergency there may be multiple priorities depending on the nature of the event. It is critical, however, to establish control over the scene as the first step in the response process. Establishing control at the scene of a pipeline emergency may require different actions than that required for response to a more frequent emergency, such as a structure fire. Given that a pipeline is linear by nature, the site control process may indeed look different.

As with any emergency, proper site assessment is the key to safety. Ensure that all personnel are conducting a thorough assessment to identify hazards. When approaching any pipeline emergency, determining wind direction should be a priority, and apparatus placement should be a major consideration. Parking a piece of fire apparatus downwind from a propane leak or above a manhole cover with natural gas migrating through the sewer pipe, can have disastrous consequences.

Another early consideration during the site management and control phase is the pipeline product itself. Identifying a leaking product should be a key action item. Once the pipeline operator is contacted, they can assist with providing Material Safety Data Sheets or other product specific information. In situations where multiple pipelines are in adjacent rights-of-way, it becomes critically important to accurately identify the operator and the product involved.
Once a thorough site assessment has been accomplished, establishing a Command Post, Staging Area, and isolation perimeter should be accomplished. When possible, a unified command structure should be established, and representatives of all involved agencies should be present in the Command Post. This would include a representative from the pipeline operator to provide technical assistance and serve as a communications link with the company’s response effort.

Personnel entering the “hot zone” or the area in proximity to the product being released must be in approved personnel protective equipment (PPE) appropriate for the hazards that may be encountered. Access control must be established to ensure that personnel not authorized to enter the hot zone are kept out.

A Public Information Area should be established since a pipeline emergency is likely to attract new media attention. The Public Information Area should be located away from the Command Post in a safe location. A Public Information Officer should be designated to provide information to media representatives.

Finally, it is important to remember that emergencies are dynamic events and conditions often change. Scene site assessment should be a continual effort and site management and control should be adjusted as conditions warrant.

Overview of Pipeline Systems: Pipeline Markers & Signage

Pipelines by their very nature operate out of sight, and in many cases out of mind to the general public. As a transportation mode, they are far less conspicuous than major interstates or even railroads. Due to the fact that they operate silently underground, pipelines must be marked to identify their presence and to protect them from excavation related damage.

Pipelines are required to be marked by the U.S. Department of Transportation’s Pipeline Safety Regulations. These regulations specify where pipelines must be marked—such as at public road crossings, railroad crossings, and anywhere else markings are needed to reduce the possibility of damage. The regulations further state that markers must specify the name of the product transported as well as contain the verbiage “Warning”, “Caution”, or “Danger” in letters at least one inch high. The marker must also contain the name of the pipeline operator and a telephone number, including area code where the operator can be reached at all times. In addition to pipeline makers, signs placed at above ground pipeline facilities also identify the operator and provide a telephone number for emergency contact.

It is very important to note that pipeline markers do not necessarily indicate the audible, and in some cases visual indication. At intervals, the pipeline technician will place yellow flags along the pipeline to indicate the route that the pipeline follows underground. Yellow is the nationally recognized color for gas or other petroleum products. Pipe locating can be complicated by multiple utilities in a right-of-way and must be accomplished by individuals who are highly trained.

Most pipeline companies require that any planned excavation activity in proximity to pipelines be accomplished only when a company technician is on site. Further, if a pipeline is to be crossed by another utility, most companies have specific requirements related to pipeline support during construction, as well as minimum clearances from existing pipelines.

Did you know...

811 is the nationally recognized number to provide notification of pending excavation activity so that utilities can properly locate underground assets. And it’s Free! Help us spread the word for safety ….

Call 811 before you dig!
exact location of the pipeline within the right-of-way. Pipeline markers designate that a pipeline is located in the vicinity. Trained and equipped company personnel are the only individuals that can ascertain the exact location of the pipeline. It is also important to note that rights-of-way may contain multiple pipelines. It is very important in an emergency to accurately identify the affected pipeline and provide notification through the emergency number identified on the pipeline marker.

Maintaining pipeline markers is an on-going task for pipeline operators. Markers may get knocked down, damaged, vandalized, or even removed. If you observe a location that has a damaged or missing pipeline marker, you can contact that pipeline company to report it so that it can be repaired or replaced. By taking this simple action, you can truly assist us, and be our partner in safety!

Best Practices from Emergency Response Peers

“We regularly forward the information provided by Kinder Morgan to our responders and hold at least 2 drills a year varying from table top to full scale.”

Anderson County Fire Department
Anderson, SC

“We attend local pipeline operator-sponsored training meetings every year to keep our personnel updated and refreshed on pipelines in our area.”

Emergency Management Department
Calera, OK

“We provide annual in-house pipeline awareness training and also conduct site visits to pipeline facilities within our jurisdiction. We participate in the annual pipeline awareness training for first responders provided by the local pipeline companies. We have a pipeline liaison person that interacts with the transmission pipeline companies within our County and relays this information regularly with our Hazmat Team, Emergency Operations Center, Fire Department Operations and LEPC. We communicate with our state and federal pipeline safety inspectors on pipeline projects and/or concerns that are happening in our jurisdiction.”

Fairfax County Fire & Rescue, Office of the Fire Marshal
Fairfax County, VA

FYI

The 2012 version of the U.S. Department of Transportation’s Emergency Response Guidebook (ERG) will be published during the first quarter of this year. The ERG is provided free of charge to emergency response agencies, and is intended to be used in the initial stages of a hazardous materials incident. The ERG also contains pipeline safety and emergency response information. For more information on the ERG, go to: http://www.phmsa.dot.gov/hazmat/library/erg