



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

1200 New Jersey Ave, S.E.  
Washington, D.C. 20590

AUG - 7 2009

The Honorable Deborah A.P. Hersman  
Chairman  
National Transportation Safety Board  
490 L'Enfant Plaza East, SW  
Washington, DC 20594

Dear Chairman Hersman:

This letter provides an updated response and requests the National Transportation Safety Board (NTSB) change the status of Safety Recommendation P-05-5 to Open-Acceptable Response. Safety Recommendation P-05-5 recommends the Pipeline and Hazardous Materials Safety Administration (PHMSA) require operators to install computer-based leak detection systems on all lines unless engineering analysis determines that such a system is not necessary.

Pipeline leak detection is one of the many layers of protection in PHMSA's holistic approach to protecting people and the environment. Operators are required to deploy an interconnected set of required layers of protection to detect and repair hazardous liquid pipeline leaks at the soonest possible time to mitigate any damages appropriately. Pipeline operators are continuously improving the cumulative performance of these interlinked protections in leak detection. These protections include but are not limited to: customized leak detection technology deployment, periodic risk-based assessment and defect repair prioritized by environmental consequence, corrosion management, pipeline rights-of-way surveillance, public awareness leading to citizen identifications of leaks, emergency preparedness and response - including ongoing liaison with emergency responders, and lessons learned and applied from accident analyses and investigations.

Over a 10-year period 1997-2007, during which PHMSA implemented the integrity management (IM) program, the median volume lost from hazardous liquid pipeline accidents dropped by more than half, from 200 to less than 100 barrels. At the same time, the number of pipeline accidents declined by over a third. Requirements in our regulations emphasize prompt and remote detection of leaks through monitoring operational parameters and engineered leak detection systems for areas identified as having the greatest consequence in the event of a pipeline failure. Under the IM rule, PHMSA addresses existing leak detection system inadequacies with each operator by analyzing and evaluating each operator's leak detection capabilities for individual pipeline systems.

PHMSA conducted an analysis to determine the number of operators that operate less than 50 miles of pipeline, 50 to 250 miles of pipeline, and greater than 250 miles of pipeline. Currently, there are a total of 421 hazardous liquid pipeline operators and 220 operate less than

50 miles of pipeline, 96 operate 50 to 250 miles of pipeline, and 105 operate more than 250 miles of pipeline. Many of the operators fitting the higher mileage categories have configured their pipelines into networks, sometimes collecting material from multiple sources and delivering material to multiple destinations. Conversely, the engineering analysis performed on many of the point-to-point pipeline systems has determined that installing a computer-based leak detection system is not necessary.

However, PHMSA expects these operators to use traditional line balancing processes, performed routinely at one hour intervals any time that material is flowing. In addition, operators must ensure open and regular communication between all active source and delivery points along the pipeline, either through verbal communication or through the use of Supervisory Control and Data Acquisition (SCADA) technology. Pipelines equipped with SCADA technology still need to perform the basic process of monitoring flow and pressure to detect large pipeline breaks. The line balance processes involving the use of SCADA technology are geared to find less obvious failures such as partial line breaks and smaller leaks not apparent in flow and pressure monitoring. Pipeline operators are required to have these communication and monitoring plans in their operating and maintenance manuals. These manuals apply to the entire pipeline system, not just sections of the pipeline located inside a high consequence area.

PHMSA will publish an advisory bulletin to inform operators of PHMSA's expectations regarding pipeline leak detection systems, on both network and less complex point-to-point pipeline systems. An operator with point-to-point pipeline systems must perform an engineering analysis to determine if a computerized leak detection system is necessary. If the analysis determines that a computerized leak detection system is unnecessary, the operator will be required to perform a line balance at no greater than one hour intervals whenever material is flowing through the line.

PHMSA requests the NTSB classify Safety Recommendation P-05-5 as "Open-Acceptable Response." If you have questions, please feel free to contact me at 202-366-4433.

Sincerely,

A handwritten signature in black ink, appearing to read "Cindy Douglass". The signature is fluid and cursive, with a large initial "C" and a long, sweeping underline.

Cynthia Douglass  
Acting Deputy Administrator