



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: February 10, 2015

In reply refer to: P-15-1 through -22
P-11-7 (Reiteration)

Mr. Timothy P. Butters
Acting Administrator
Pipeline and Hazardous Materials
Safety Administration
Washington, DC 20590

On January 27, 2015, the National Transportation Safety Board (NTSB) adopted its safety study, *Integrity Management of Gas Transmission Pipelines in High Consequence Areas*. Additional information about this study and the resulting recommendation(s) may be found in the study, which can be accessed at our website, <http://www.nts.gov>, under report number SS-15/01.

As a result of this investigation, we reiterated Safety Recommendation P-11-7; reclassified Safety Recommendation P-11-17; and issued 28 new recommendations, including 2 to the American Gas Association, 2 to the Interstate Natural Gas Association of America, 1 to the National Association of Pipeline Safety Representatives, 1 to the Federal Geographic Data Committee, and the following 22 recommendations to the Pipeline and Hazardous Materials Safety Administration:

P-15-1

Assess (1) the need for additional inspection protocol guidance for state inspectors, (2) the adequacy of your existing mentorship program for these inspectors, and (3) the availability of your subject matter experts for consultation with them, and implement the necessary improvements.

P-15-2

Modify the overall state program evaluation, training, and qualification requirements for state inspectors to include federal-to-state coordination in integrity management inspections.

P-15-3

Work with the National Association of Pipeline Safety Representatives to develop and implement a program to formalize, publicize, and facilitate increased state-to-state coordination in integrity management inspections.

P-15-4

Increase the positional accuracy of pipeline centerlines and pipeline attribute details relevant to safety in the National Pipeline Mapping System.

P-15-5

Revise the submission requirement to include high consequence area identification as an attribute data element to the National Pipeline Mapping System.

P-15-6

Assess the limitations associated with the current process for identifying high consequence areas, and disseminate the results of your assessment to the pipeline industry, inspectors, and the public.

P-15-7

Work with the Federal Geographic Data Committee to identify and publish standards and specifications for geospatial data commonly used by gas transmission pipeline operators, and disseminate the standards and specifications to these operators and inspectors.

P-15-8

Work with the appropriate federal, state, and local agencies to develop a national repository of geospatial data resources for the process for high consequence area identification, and publicize the availability of the repository.

P-15-9

Establish minimum criteria for eliminating threats, and provide guidance to gas transmission pipeline operators for documenting their rationale for all eliminated threats.

P-15-10

Update guidance for gas transmission pipeline operators and inspectors on the evaluation of interactive threats. This guidance should list all threat interactions that must be evaluated and acceptable methods to be used.

P-15-11

Develop and implement specific risk assessment training for inspectors in verifying the technical validity of risk assessments that operators use.

P-15-12

Evaluate the safety benefits of the four risk assessment approaches currently allowed by the gas integrity management regulations; determine whether they produce a comparable safety benefit; and disseminate the results of your evaluation to the pipeline industry, inspectors, and the public.

P-15-13

Update guidance for gas transmission pipeline operators and inspectors on critical components of risk assessment approaches. Include (1) methods for setting weighting factors, (2) factors that should be included in consequence of failure calculations, and (3) appropriate risk metrics and methods for aggregating risk along a pipeline.

P-15-14

Revise 49 *Code of Federal Regulations* section 192.915 to require all personnel involved in integrity management programs to meet minimum professional qualification criteria.

P-15-15

Revise Form F7100.1, Annual Report Form, to collect information about which methods of high consequence area identification and risk assessment approaches were used.

P-15-16

Revise Form F7100.2, Incident Report Form, (1) to collect information about both the results of previous assessments and previously identified threats for each pipeline segment involved in an incident and (2) to allow for the inclusion of multiple root causes when multiple threats interacted.

P-15-17

Develop a program to use the data collected in response to Safety Recommendations P-11-15 and P-11-16 to evaluate the relationship between incident occurrences and (1) inappropriate elimination of threats, (2) interactive threats, and (3) risk assessment approaches used by the gas transmission pipeline operators. Disseminate the results of your evaluation to the pipeline industry, inspectors, and the public annually.

P-15-18

Require that all natural gas transmission pipelines be capable of being in-line inspected by either reconfiguring the pipeline to accommodate in line inspection tools or by the use of new technology that permits the inspection of previously uninspectable pipelines; priority should be given to the highest risk transmission pipelines that considers age, internal pressure, pipe diameter, and class location.

P-15-19

Revise Form F7100.1, Annual Report Form, to collect information on the mileage of both HCA and non-HCA pipeline that can accommodate in-line inspection tools.

P-15-20

Identify all operational complications that limit the use of in-line inspection tools in piggable pipelines, develop methods to eliminate the operational complications, and require operators to use these methods to increase the use of in-line inspection tools.

P-15-21

Develop and implement a plan for eliminating the use of direct assessment as the sole integrity assessment method for gas transmission pipelines.

P-15-22

Develop and implement a plan for all segments of the pipeline industry to improve data integration for integrity management through the use of geographic information systems.

We also reiterated 1 previously issued recommendation to the Pipeline and Hazardous Materials Safety Administration:

P-11-7

Ensure that PHMSA amends the certification program, as appropriate, to comply with the findings of the audit recommended in Safety Recommendation P-11-6.

The following recommendation to the Pipeline and Hazardous Materials Safety Administration has been superseded:

P-11-17

Require that all natural gas transmission pipelines be configured so as to accommodate in-line inspection tools, with priority given to older pipelines.

This safety recommendation is superseded by P-15-18 and is now classified “Closed—Superseded.”

Acting Chairman HART, and Members SUMWALT and WEENER concurred in these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Acting Chairman