

(3) In each ECDA region, we propose to require one excavation; however, the excavation must be made at a location the operator considers most suspect, not at any random place.

RSPA/OPS is inviting public comment on whether the benefits of these proposed requirements that are more extensive than the NACE Recommended Practices currently being developed are worth the cost.

External Corrosion Direct Assessment and Internal Corrosion Direct Assessment

Work jointly funded by the gas pipeline industry and RSPA/OPS is ongoing to develop, validate and standardize the application of the direct assessment process to external corrosion (ECDA) and internal corrosion (ICDA). Future work is planned to develop, validate and standardize a direct assessment process for application to the stress corrosion cracking (SCCDA) threat. Furthermore, significant anecdotal evidence exists that the ECDA process may be capable of identifying coating damage associated with third party impacts on pipelines, but formal validation of this capability has not occurred.

ICDA is an assessment process that first identifies areas along the pipeline where water or other electrolytes introduced by an upset condition may reside, then focuses direct examination on the locations in each area where internal corrosion is most likely to exist. If no evidence of internal corrosion exists in these most likely locations, then the entire section can be considered to be free of internal corrosion. An operator using direct assessment as a method to address internal corrosion in a pipeline segment must follow the requirements in ASME/ANSI B31.8S, Appendix SP-B2, and in this section. Additional detail on ICDA is provided elsewhere in this preamble and at section 192.763(h)(3) of the proposed rule.

ECDA is an assessment process that combines assembly and analysis of risk factor data, indirect examination using above ground detection instruments, direct examination of suspected areas on the pipeline and post-assessment evaluation. The current approach being incorporated in the consensus standard under development for ECDA is to locate areas suspected of having external corrosion by identifying defects in the pipe coating, then excavating those defects in areas where corrosion activity is suspected. While all indications discovered by ECDA that are not adequately protected by the cathodic protection system at the time

of the assessment will be excavated and directly examined, only a fraction of the ECDA indications that are protected by cathodic protection systems at the time of the assessment will be excavated. Additional detail is provided elsewhere in this preamble and at section 192.763(h)(4) of the proposed rule.

The Role of Consensus Standards

The underpinning analysis for this rulemaking was a consensus standard development effort. Completing this effort required nearly two years. This effort required assembling the best integrity assurance practices currently used by gas pipeline operators, and incorporating these practices into consensus standards. In addition the direct assessment process, which was conceived as a way to assess the integrity of gas pipelines for which in-line-inspection and pressure testing are not possible or economically feasible, needed to be developed, documented, and standardized. Some consensus standards on gas pipeline integrity management that we are considering incorporating by reference have been published. Others are still under development.

A major effort has been underway for several years to develop consensus standards supporting integrity management practices for gas pipelines. These standards are a necessary component in assuring the quality of implementation of any new assessment requirement. ASME/ANSI B31.8, Supplement, issued early this year, structures industry knowledge and best practices into requirements for an integrity management program and a set of prescriptive requirements for assessing pipeline integrity. In addition this standard describes the requirements an operator must follow to implement a performance-based program. The ASME/ANSI standard represents a significant advance in the documentation of demonstrated integrity management practices.

Although many of the tools employed in the direct assessment process have been in use for sometime, the use of these tools in the integrity assessment process is new. The National Association of Corrosion Engineers (NACE) undertook development of a Recommended Practices to support direct assessment and to expand the standardized application of In-Line Inspection (ILI).

RSPA/OPS is relying heavily on the technical content of these standards. RSPA/OPS has been directly involved in the development of these standards, both to ensure that the standards reflect the knowledge and perspective of

RSPA/OPS, and to provide the basis for expanding requirements as needed within the Integrity Management Program (IMP) Rule. RSPA/OPS involvement included participation in the teams that developed the ASME/ANSI B31.8S standard, and ongoing participation in the development of the NACE Recommended Practice on Direct Assessment. In addition, RSPA/OPS supported participation by pipeline safety representatives from several States in the standards development and review process.

This proposed rulemaking is the culmination of experience gained from inspections, accident investigations and risk management and system integrity initiatives. This experience is the foundation for proposing a rulemaking that addresses, in a comprehensive manner, the National Transportation Safety Board's (NTSB) recommendations, Congressional mandates, including the mandates in the Pipeline Safety Improvement Act of 2002, and pipeline safety and environmental issues raised over the years. These issues and considerations include:

- Several NTSB recommendations concerning pipeline safety, including those which:

- (1) Require periodic testing and inspection to identify corrosion and other time-dependent damage.

- (2) Require the establishment of criteria to determine appropriate intervals for inspections and tests, including safe service intervals between pressure testing.

- (3) Determine hazards to public safety from electric resistance welded (ERW) pipe and take appropriate regulatory action.

- (4) Expedite requirements for installing automatic or remote-operated mainline valves on high-pressure lines to provide for rapid shutdown of failed pipeline segments.

- Our analyses of several pipeline ruptures in Bellingham, Washington; Simpsonville, South Carolina; Reston, Virginia; and Edison, New Jersey, brought to light the need for operators to address the potential interrelationship among factors affecting failure causes and to implement coordinated risk control actions to supplement the protection provided by compliance with current regulations.

- Our analysis of the rupture in Carlsbad, New Mexico, highlighting the need for methods to assess internal corrosion in pipelines that are not piggable.

- Several Congressional mandates identify areas where the risk of a