

Buried and Underground Piping

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Summary

- NRC's objectives related to buried piping
 - Maintenance of intended nuclear operations safety function
 - Releases remain below regulatory limits
- Current regulations and industry activities are adequate with regard to these objectives
- NRC is monitoring and responding to events related to buried piping
- NRC is working to understand and assess licensee implementation of the Buried Piping Integrity Initiative and the Underground Piping and Tanks Integrity Initiative



NRC Actions

- May 18, 2010, Buried Piping Action Plan (ML101480739)
- September 14, 2010, Buried Piping Action Plan update (ML102590171)
- Meetings with industry 8/2009, 9/2009, 2/2010, 9/2010
- Letter to industry August 18, 2010 (ML102300270)

Buried Piping Action Plan

- Data collection
 - Historical rate of incidence
 - Affected systems
 - System classifications
 - Tritium releases

- Program assessment
 - Understand Buried Piping Integrity Initiative and Underground Piping and Tanks Integrity Initiative
 - Temporary Instruction for NRC inspection of Initiative activities
 - Initiative details (scope, risk ranking, inspection techniques)

- Codes and standards

- Regulatory activities
 - Website
 - License renewal
 - Commitments
 - Recommendations for rulemaking

NRC Information Request



- During August, 2010 NRC requested NEI assemble:
 - Scope of piping subject to risk ranking
 - Listing of degradation events
 - Mechanisms



Codes and Standards

- ASME Code
 - Met with ASME, Section XI management August 6, 2010
 - In November Section XI established a committee to address leaks from buried piping
 - Consideration of enhanced inspection requirements
 - Consideration of extension of scope to nonsafety-related piping that contains tritium
 - First meeting of the committee January, 2011

- NACE International (formerly National Association of Corrosion Engineers)
 - Task group to develop standards for nuclear buried piping
 - First task group meeting September, 2010
 - Meets September and March

NRC Actions

- Inspection
 - Temporary Instruction for inspection of buried piping activities
 - Made decision to generate a TI as part of the action plan
 - Implementation by June 2011
 - Temporary Inspection instructions may exist through 2015
 - Seeking to understand details:
 - Risk ranking processes
 - Inspection techniques and processes

- License renewal
 - Revised buried piping aging management program

NRC Actions



- Groundwater Task Force Report
- Senior Management Review Group
 - SECY-11-0019 (ML110050525)
 - Commission meeting
 - ACRS sub- and main committee meetings
 - ACRS Letter (ML110730443)
- GAO Audit



Performance

- Seeking to establish a pre-2010 incidence rate for leaks as a performance baseline
- Monitoring operating experience
- Evaluating need for commitments for initiative

Conclusions

- NRC's objectives related to buried piping
 - Maintenance of intended function
 - Releases remain below regulatory limits
- Current regulations and industry activities are compatible with these objectives
- NRC is monitoring current events related to buried piping
- NRC is performing action plan activities, including monitoring industry initiatives