

# 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