

**Industry's Buried Piping Integrity Initiative**

Regulatory Information Conference  
Jim Riley, NEI



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**History**

- Buried piping leaks have occurred at our plants
  - Leaks have not raised safety or regulatory compliance concerns or had significant effects on public health and safety
- Industry has recognized the importance of buried piping integrity for some time
  - INPO focus area since 2007
  - NEI Ground Water Protection Initiative approved in 2007
  - EPRI buried piping activities emphasized in 2007
  - EPRI Buried Piping Integrity Group established in 2008
    - Support utility buried piping programs
    - Buried Piping Program Guidelines published in Dec 2008
    - All utilities are members as of January 2010



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**Perspective**

- Leaks from buried piping have the potential to be safety, radiological, environmental and financial concerns
- It is important to address this condition
  - Minimize the possibility of more significant leaks
  - Maintain public confidence



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### Initial Industry Activities

- September meeting to evaluate options
  - No significant safety or radiological concerns to-date
  - Inspection technology does not support guaranteed detection of degradation
  - Ground Water Protection Initiative addresses piping containing radiological material
    - Addresses monitoring, remediation, and communication
  - Public confidence is important for operation of existing plants and support of new plants
  - Important to maintain regulatory confidence
  - Recommended an NSIAC Initiative



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### Initial Industry Activities

- September meeting recommendations
  - Adopt an NSIAC Buried Piping Integrity Initiative to address all buried piping
    - Procedures and oversight
    - Prioritization through risk ranking
    - Inspections
    - Asset management plan
  - Develop an NEI Guideline to supplement existing guidance
    - Guide Initiative implementation
  - Buried Piping Integrity Initiative supplements the Ground Water Protection Initiative



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### Understanding an NSIAC Initiative

- NSIAC is an NEI standing committee whose members include the Chief Nuclear Officer (CNO) of every utility that operates a nuclear power plant in the US
- Approved Initiatives are formal commitments between CNOs to follow a defined policy or plan of action
  - Initiatives require 80% approval
- The Buried Piping Integrity Initiative was adopted on November 18, 2009



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### Buried Piping Integrity Initiative

- Goal: reasonable assurance of leakage and structural integrity of buried piping with emphasis on piping containing radiological material
- Six implementation milestones
  1. Procedures and oversight by 6/30/10
  2. Risk ranking of piping by 12/31/10
  3. Inspection plan by 6/30/11
  4. Start inspections by 6/30/12
  5. Condition assessment of piping containing radioactive material by 6/30/13
  6. Asset management plan by 12/31/13



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### Subsequent Industry Activities

- Formed Buried Piping Integrity Working Group and Task Force
- Issued NEI Guideline (NEI 09-14)
  - Text of the Initiative
  - Intent of the Initiative
  - Roles and responsibilities
  - Reporting
- Developing guidance on “reasonable assurance”
- Continuing engagement with NRC



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### Current Industry Activities

- Implement the Initiative and monitor progress
- Trend leaks from buried piping
- Develop inspection technologies



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### Future Industry Activities

- NEI
  - Continue NRC engagement
  - Utilize the Buried Piping Integrity Task Force to evaluate Initiative implementation and OE
  - Communicate developments
  - Possibly revise NEI 09-14 to address lessons learned
- EPRI
  - Support implementation
  - Develop inspection technology
- INPO
  - Continue focus area



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