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Institute of Nuclear Power Operations

INPO Perspectives

**NRC Buried and Underground Piping Meeting
June 11, 2014**

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Key Topics

- INPO's NEI 09-14 role
- Industry Performance
 - Plant evaluations
 - Operating experience
 - ICES reporting



NEI 09-14 INPO's Role

- Evaluate programs.
- Communicate issues to the industry.
- Compile and report operating experience.



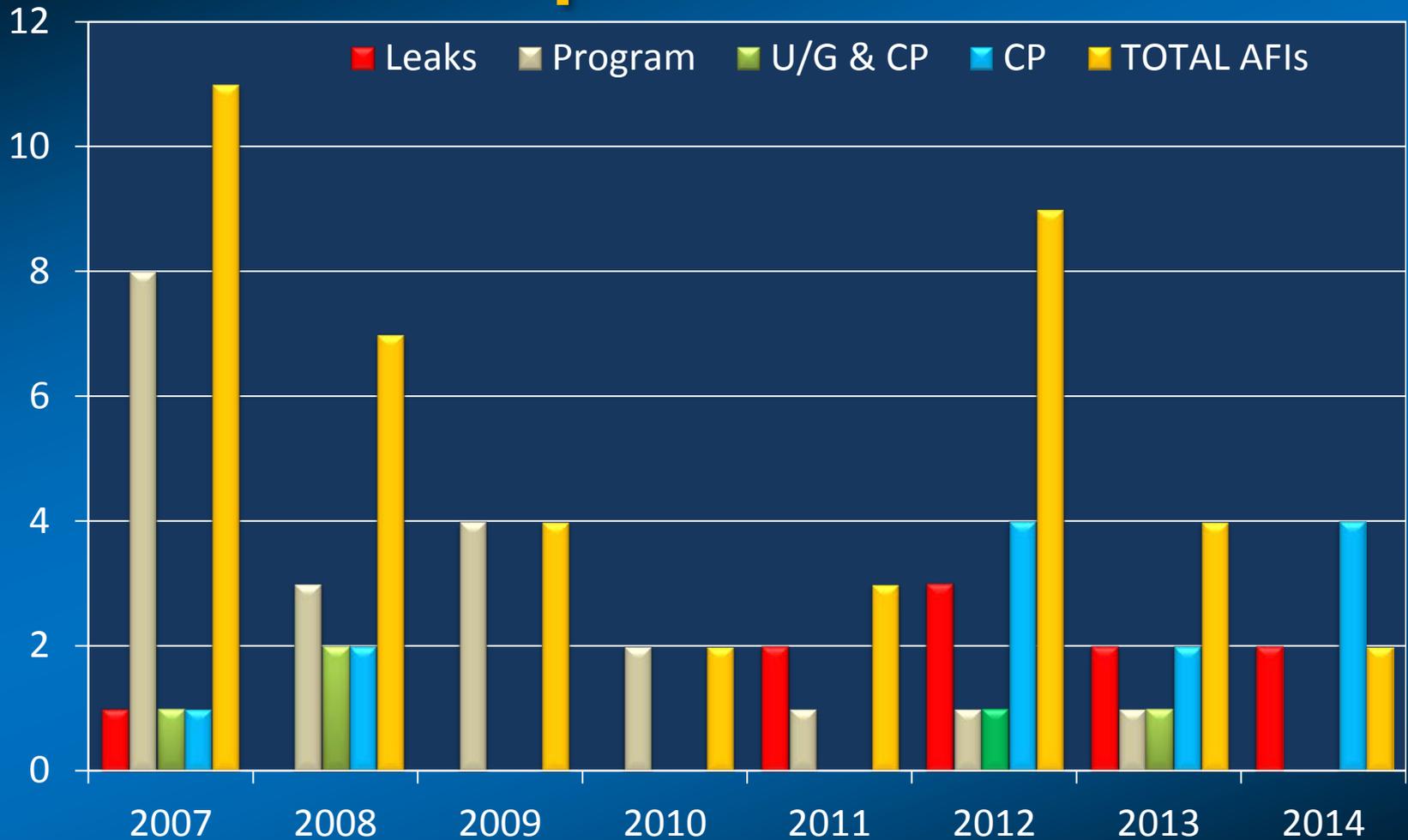
Key Topics

- INPO's NEI 09-14 role
- Industry Performance
 - Plant evaluations
 - Operating experience
 - ICES reporting
- Questions



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Areas for Improvement



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2014 Summary

- Two AFIs; Four Performance Deficiencies
 - Two – underground piping
 - Four – cathodic protection
- Improvement needed
 - Degraded coatings and cathodic protection not properly maintained
 - Cathodic protection equipment work prioritization and completion
 - Cathodic protection site knowledge weaknesses
 - Leaks occurring and the source is not determined

Good Underground Piping Program Attributes

- ICES reporting quality improvement
- Zero leak tolerance – especially in piping containing radioactive fluids
- Cathodic protection installed and maintained
- Failure causes identified
- Effective station and corporate oversight
- Effective use of corrective action program

Key Topics

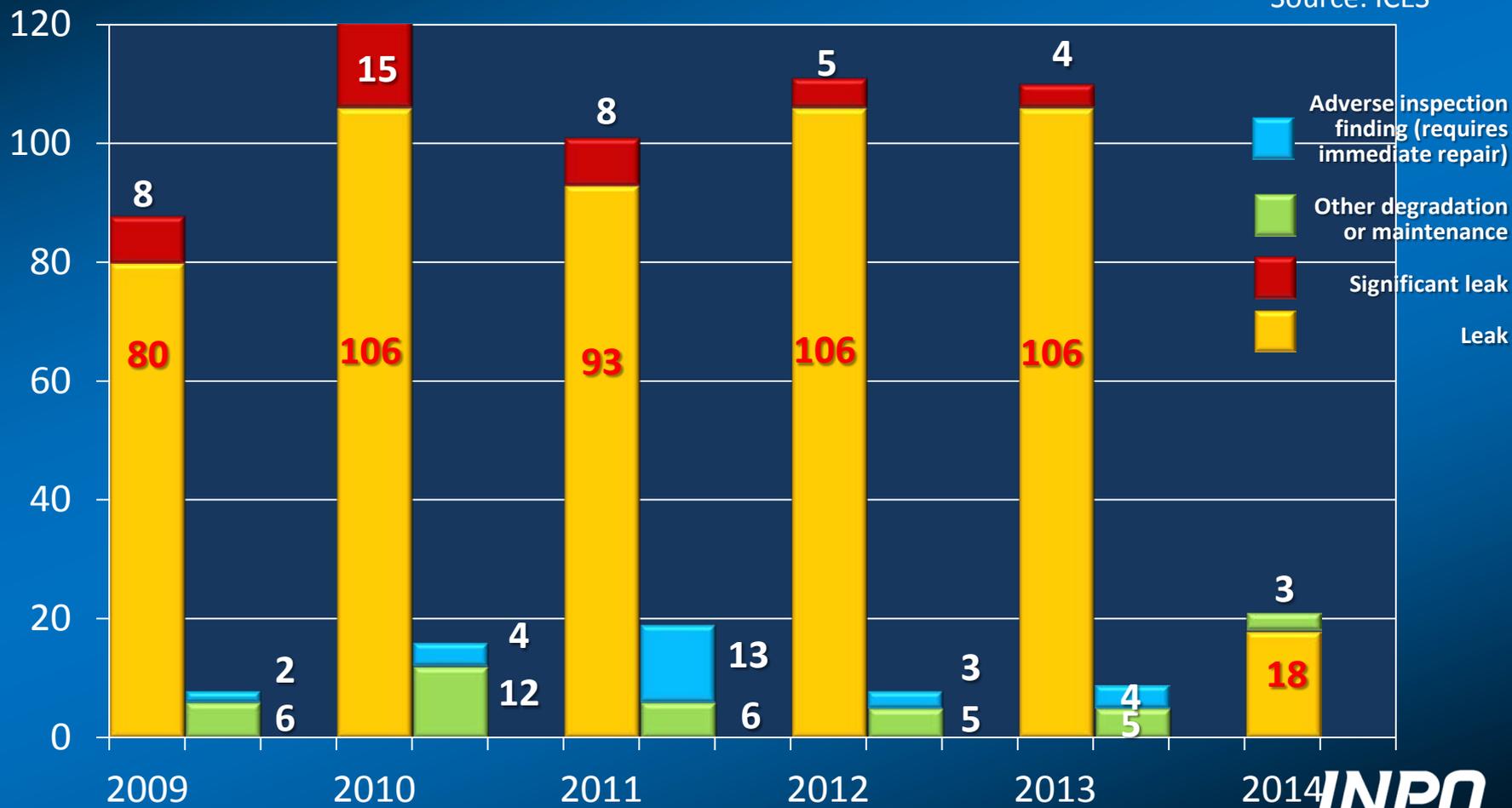
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May 2014 Number of Reported Events by Year and Failure Mode

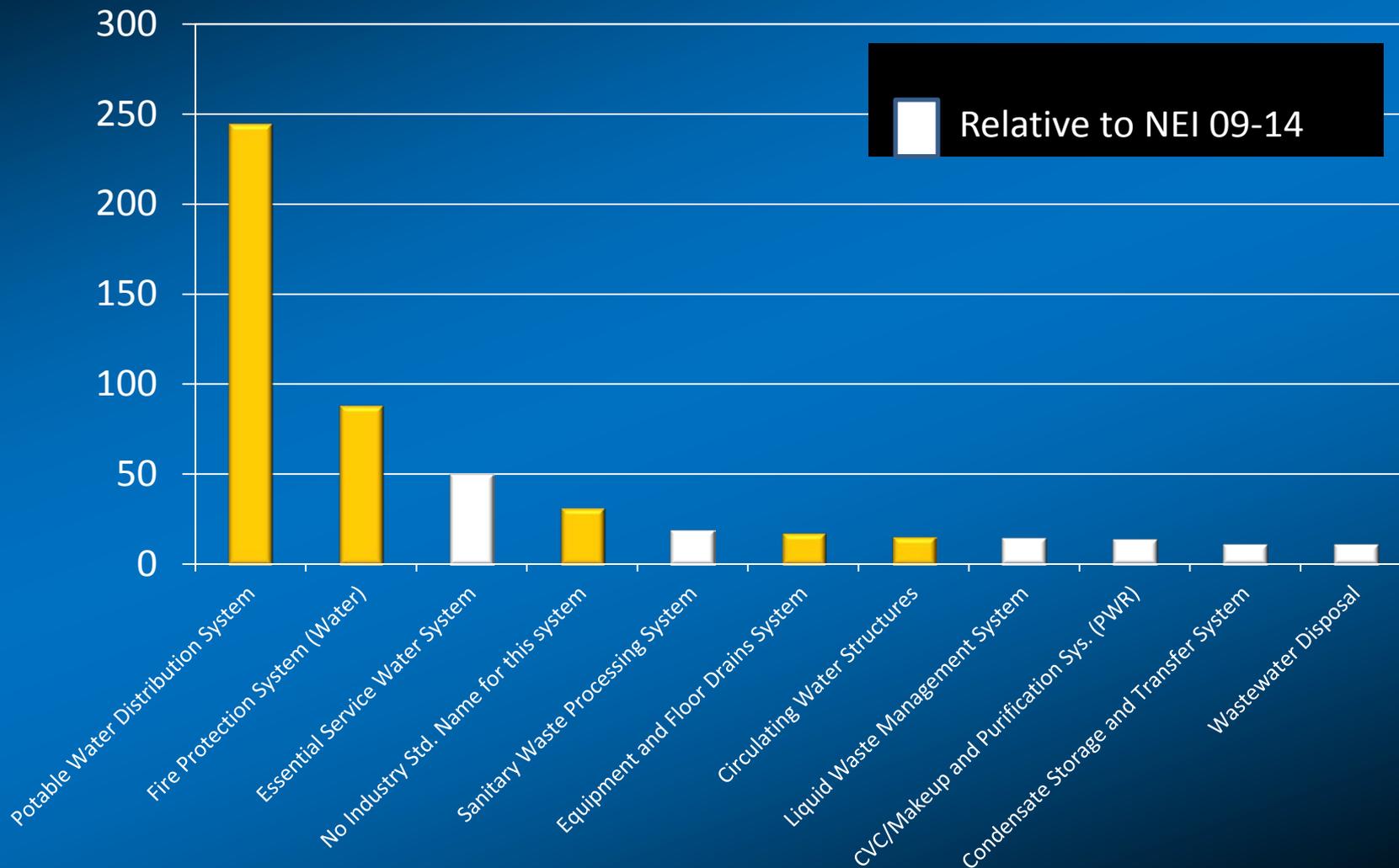
Source: ICES



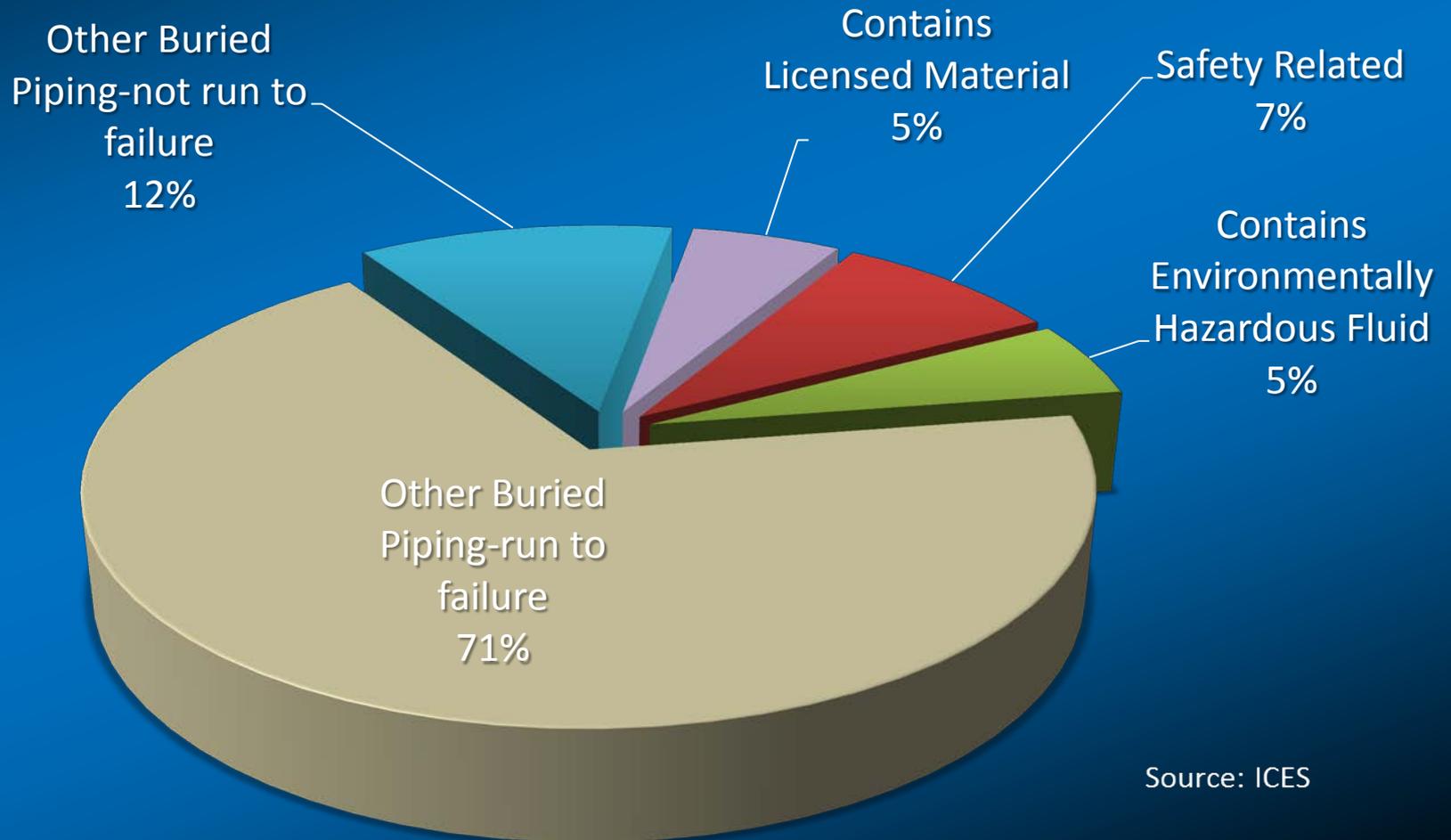
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Most Commonly Affected Systems

Source: ICES



Buried Pipe Events Classification



Source: ICES