

May 15, 2013

**MEETING  
PRESENTATIONS**

# INPO



*Institute of Nuclear Power Operations*

## INPO Perspectives

**NRC Buried and Underground Piping Meeting  
April 25, 2013**

**Joe Sears**

Manager, Chemistry

# Key Topics

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



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# NEI 09-14 INPO Responsibilities

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



# Key Topics

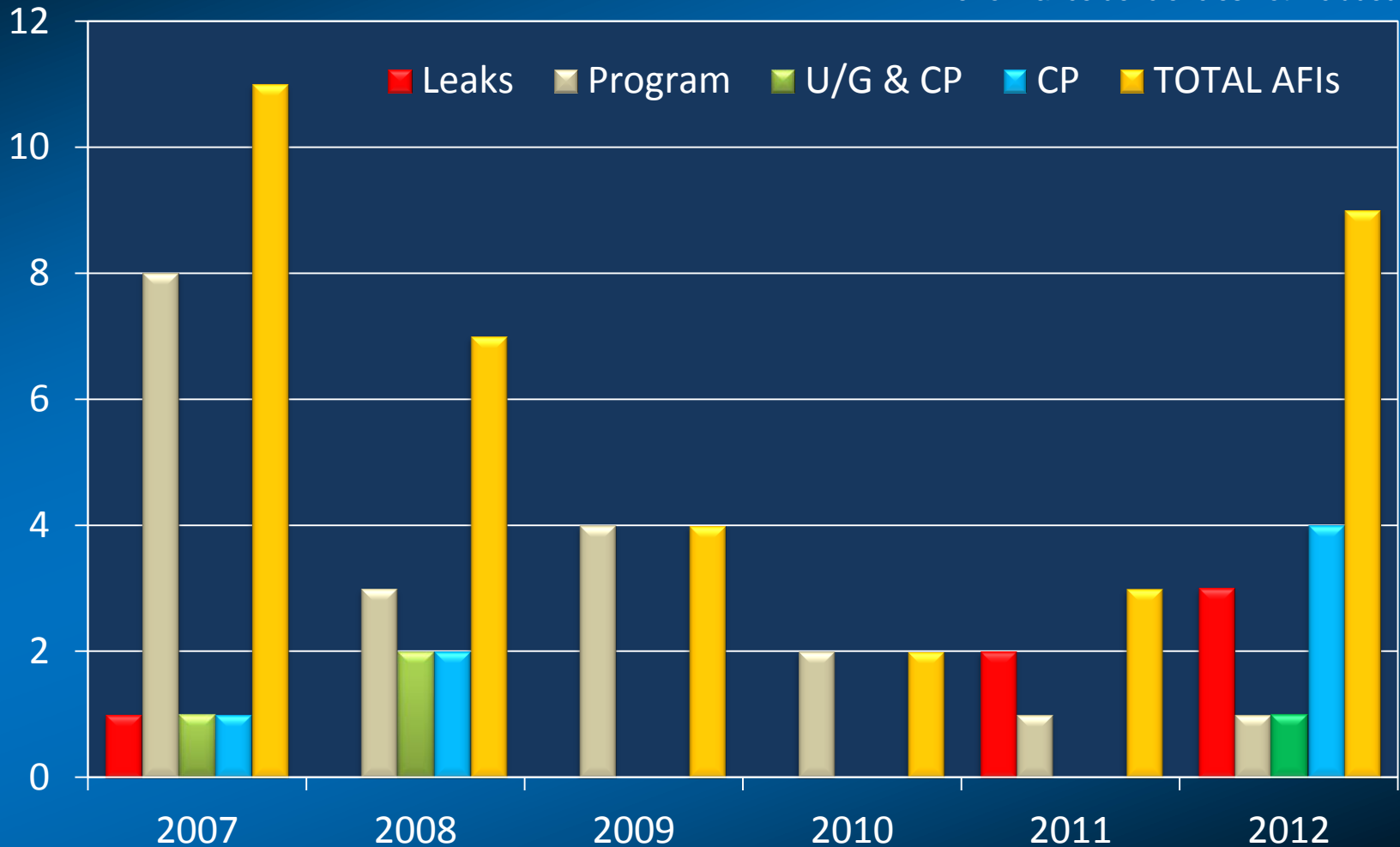
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# Areas for Improvement

Performance deficiencies not included



# 2012 AFI Summary

- Nine AFIs; Four Performance Deficiencies
  - Five – underground piping
  - Four – cathodic protection
- Improvement needed
  - Risk ranking review thoroughness
  - Leak extent of condition addressed
  - Leaks occurring and the source is unknown
  - Cathodic protection health or none installed
  - Input results in ICES (small number unacceptable)



# Good Underground Piping Program Attributes

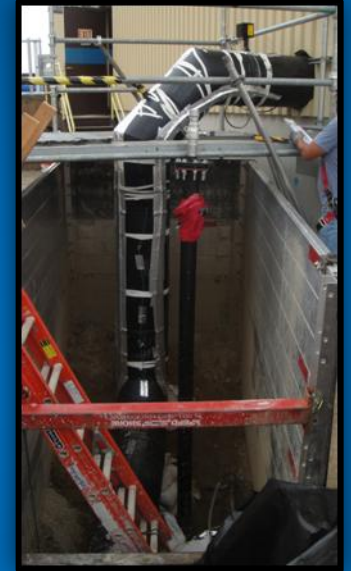
- Failure causes identified
- Risk ranking challenge board
- Cathodic protection installation
- Zero leak tolerance – especially in piping containing radioactive fluids
- Effective station and corporate oversight
- Healthy collaboration between UP, CP and GW
- Effective use of corrective action program





# Key Topics

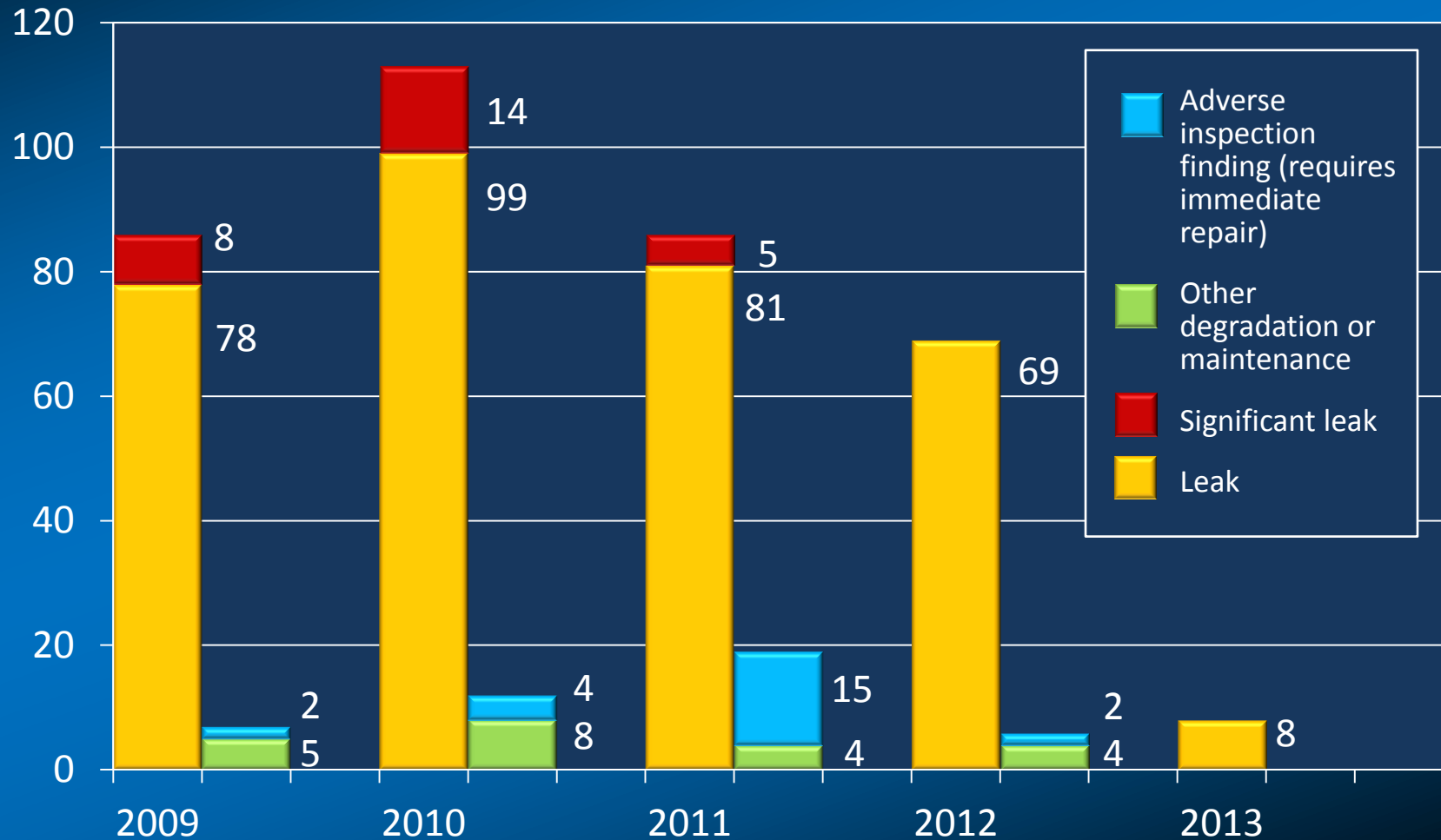
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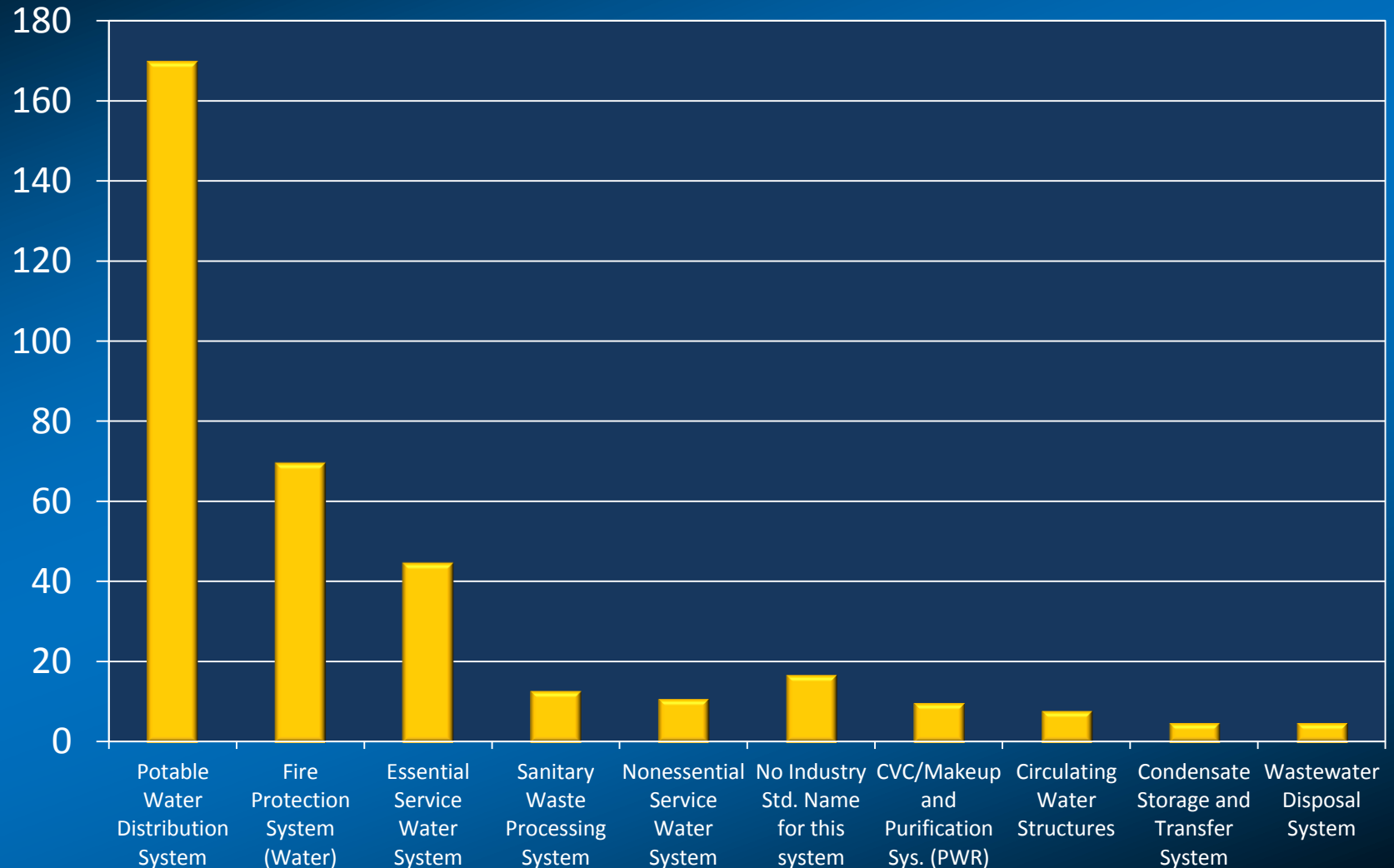
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# April 2013 Number of Reported Events by Year and Failure Mode

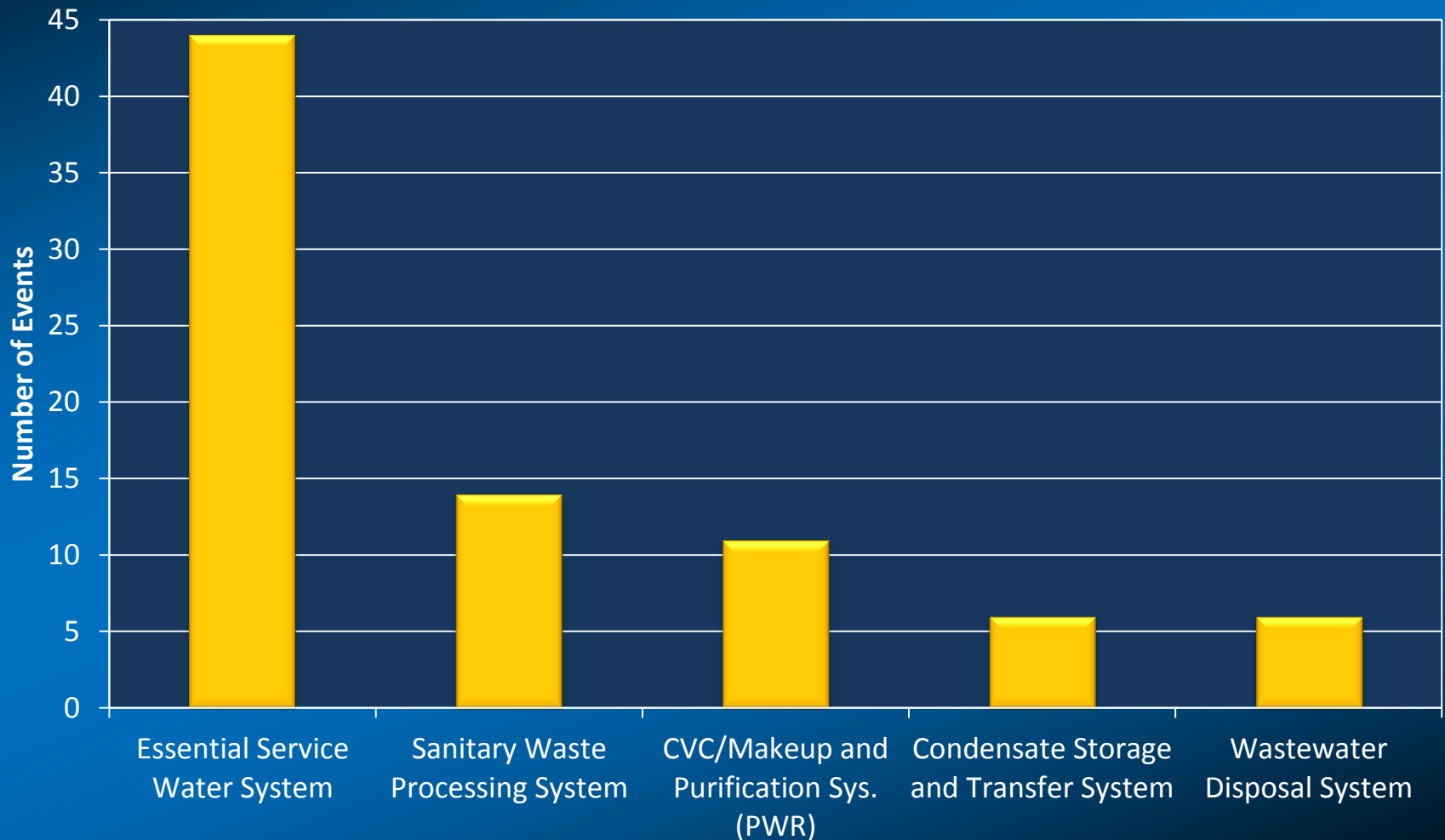
Source: ICES



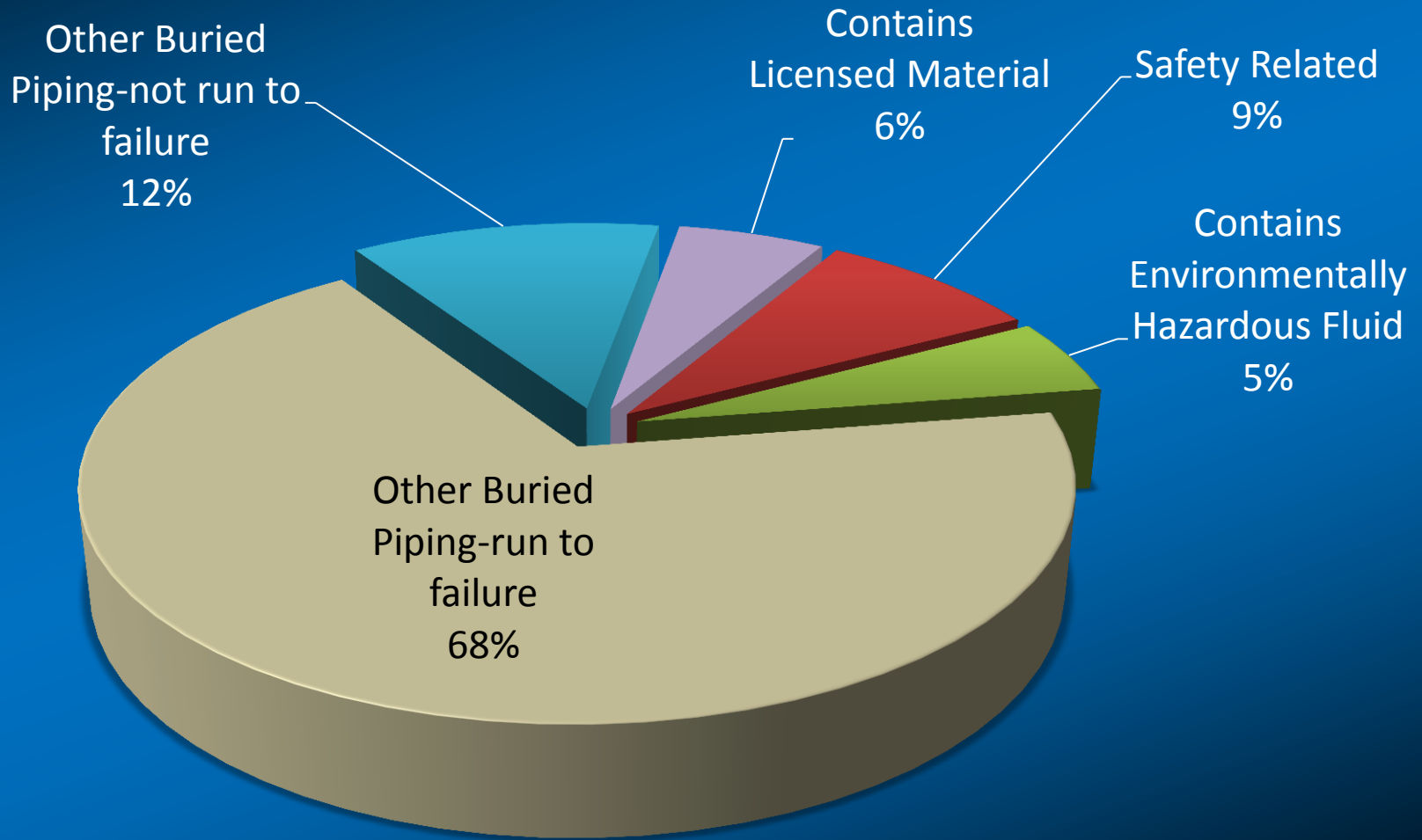
# Most Commonly Affected Systems



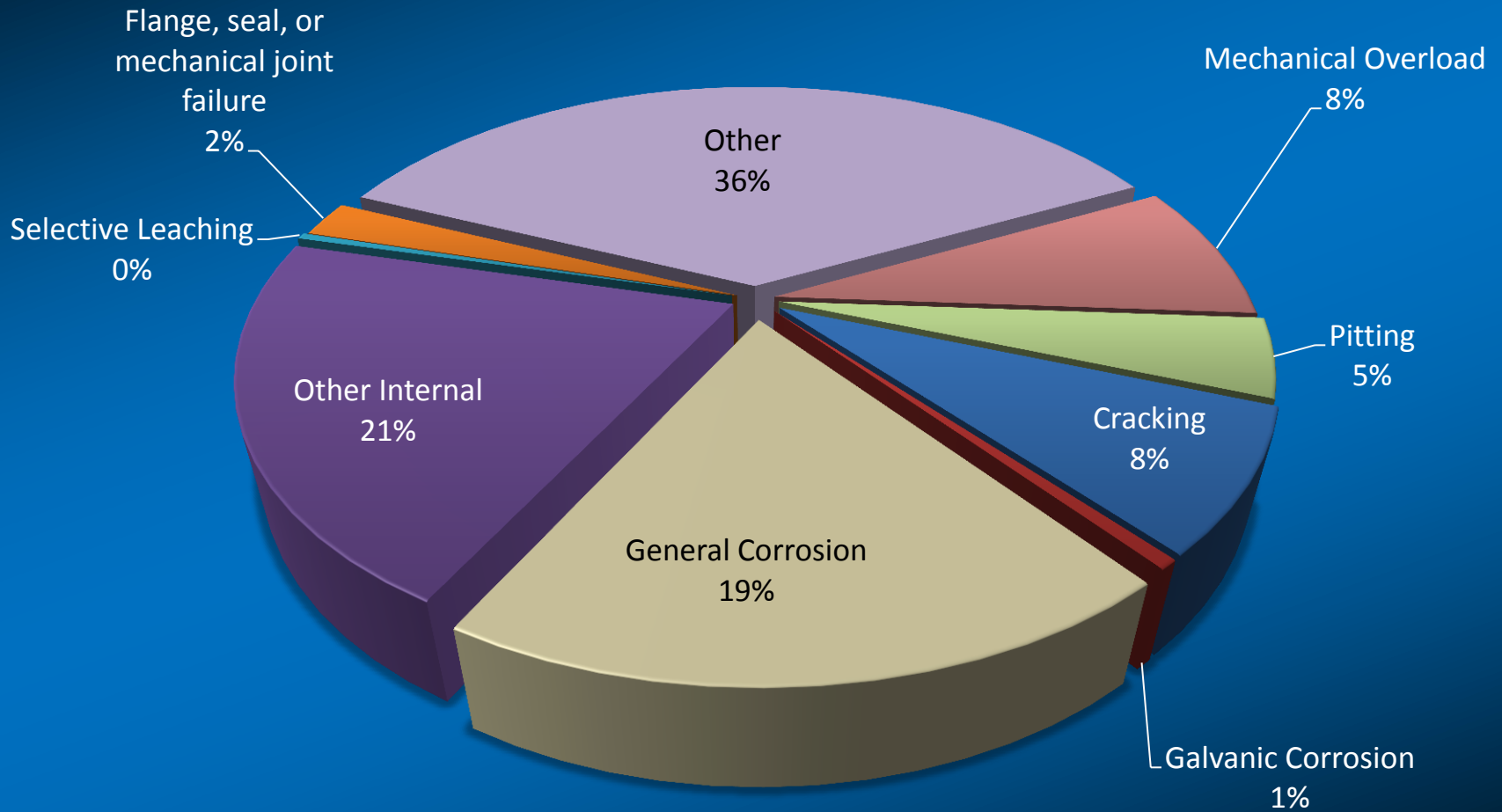
# Most Commonly Affected Systems Relative to NEI 09-14



# Buried Pipe Events Classification



# UPTI Failure Codes



# Questions

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**To promote excellence in the  
operation of commercial  
nuclear power plants.**