Underground Piping and Tanks Integrity Initiative Implementation Report to NSIAC January, 2012

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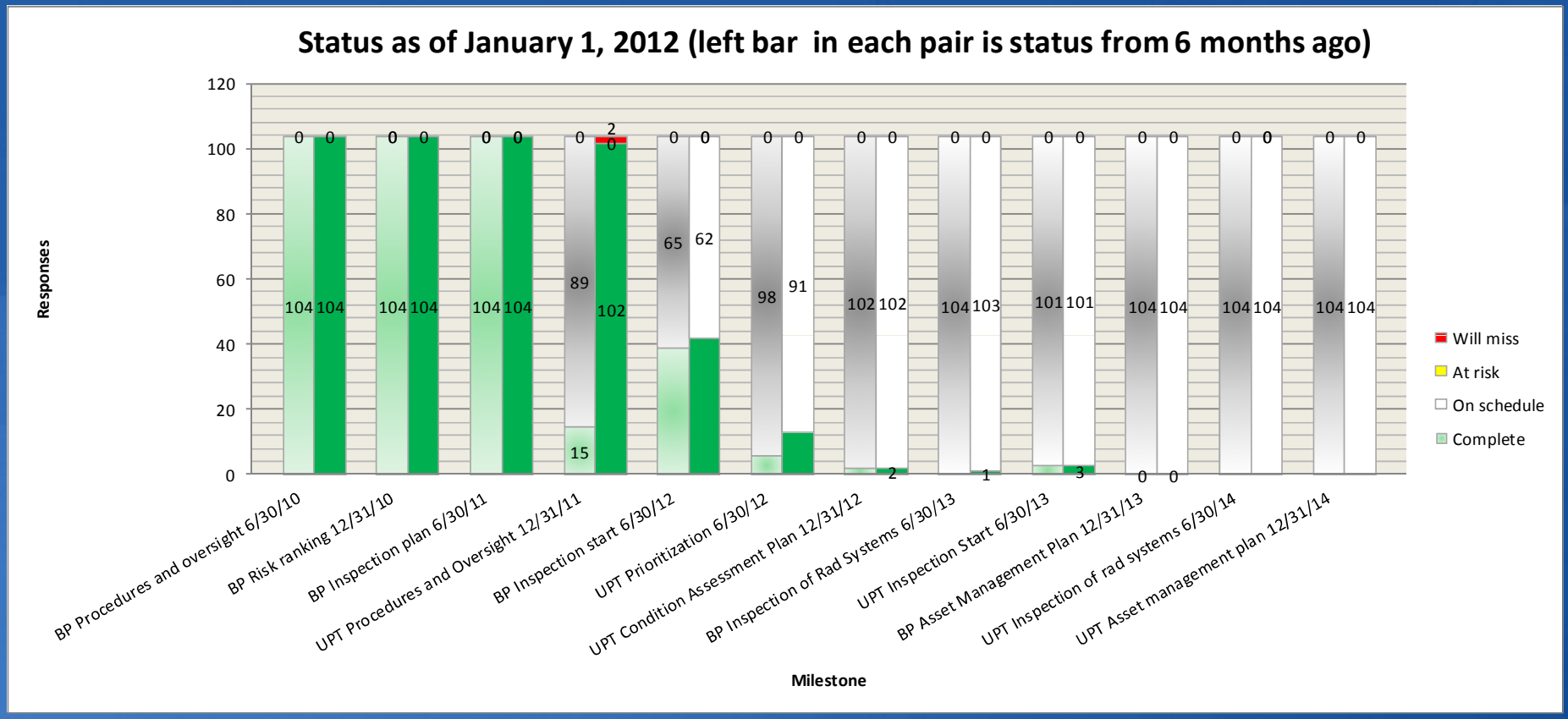
April 4, 2012

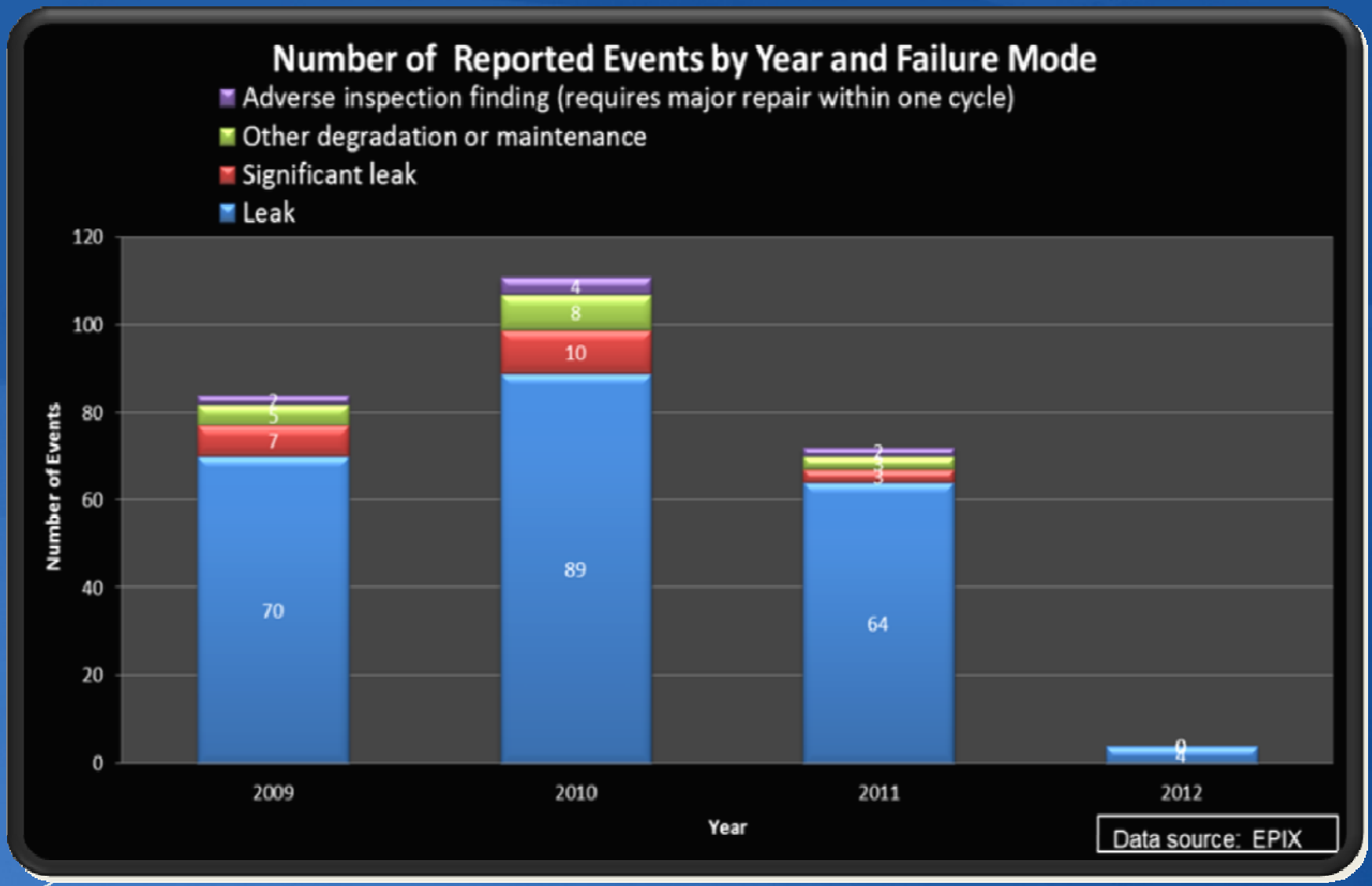
Overall Implementation Status



Overall Implementation Status

- As of the end of January 2012, all plants have met the first four milestones.
  - Two plants (one utility) had not met the UPT Procedures and oversight milestone as of December 31, 2011. Missed milestone caused by an administrative problem that resulted in the procedures not being approved until January, 2012. The utility has processed a justification for deviation on this issue.
- Positive or stable trends are indicated on each milestone
- One deviation to the Initiative was reported in January 2012 (see above)
- All plants currently report that they are on schedule for future milestones

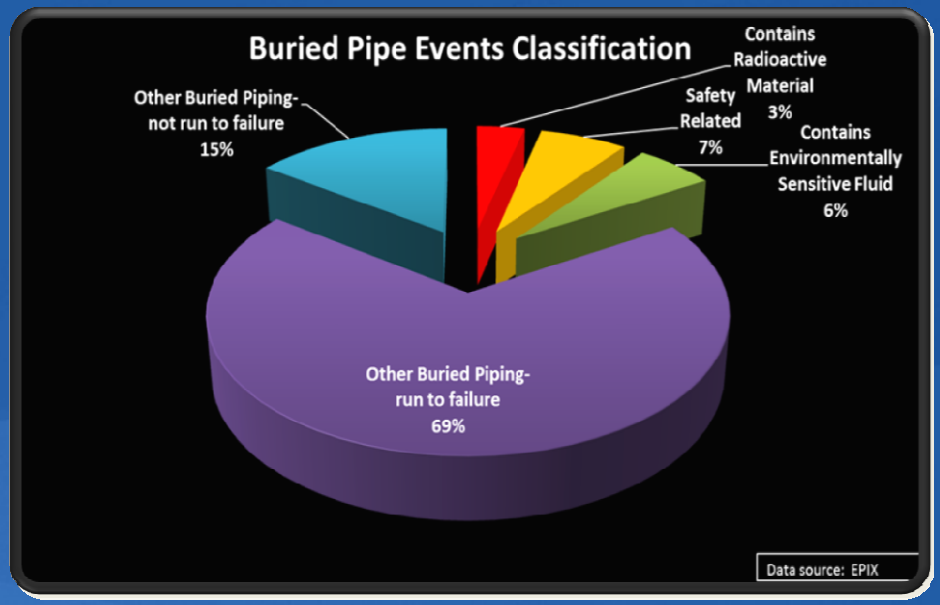
Operating Experience



Operating Experience

- Reported in EPIX as of January, 2012
- Totals for past years change as reports continue
- Too early to trend
- Legend
  - Significant leaks
    - Exceed NRC or EPA limits,
    - Reportable under the Ground Water Protection Initiative,
    - Result in a system or component being out of service
  - Adverse inspection findings require repairs within one cycle

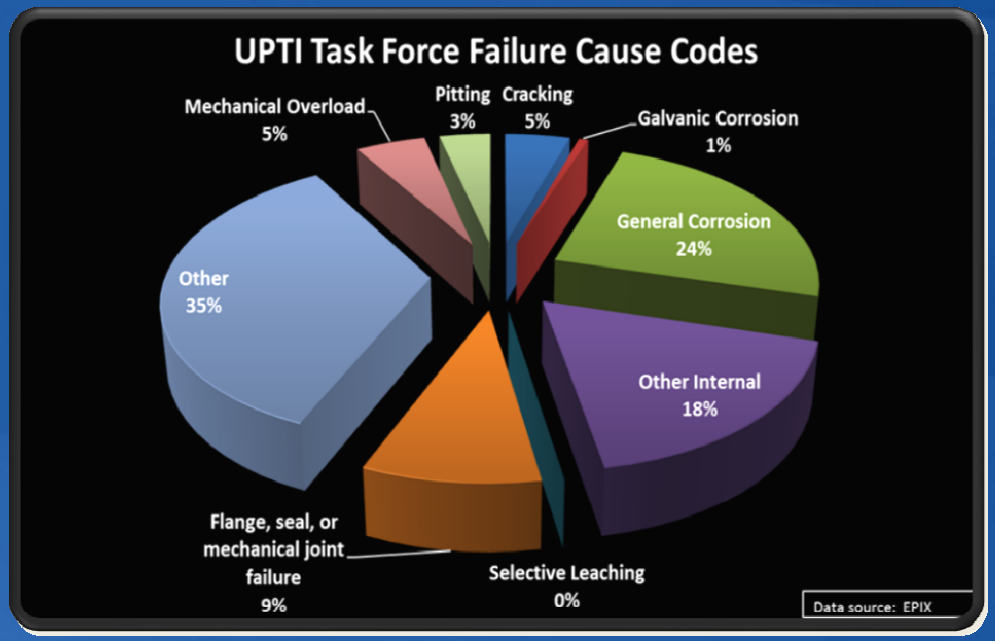
Operating Experience



- Plants characterize systems differently; especially which systems are “run to failure”
- The majority of buried and underground piping degradation is occurring on low risk or “run to failure” systems

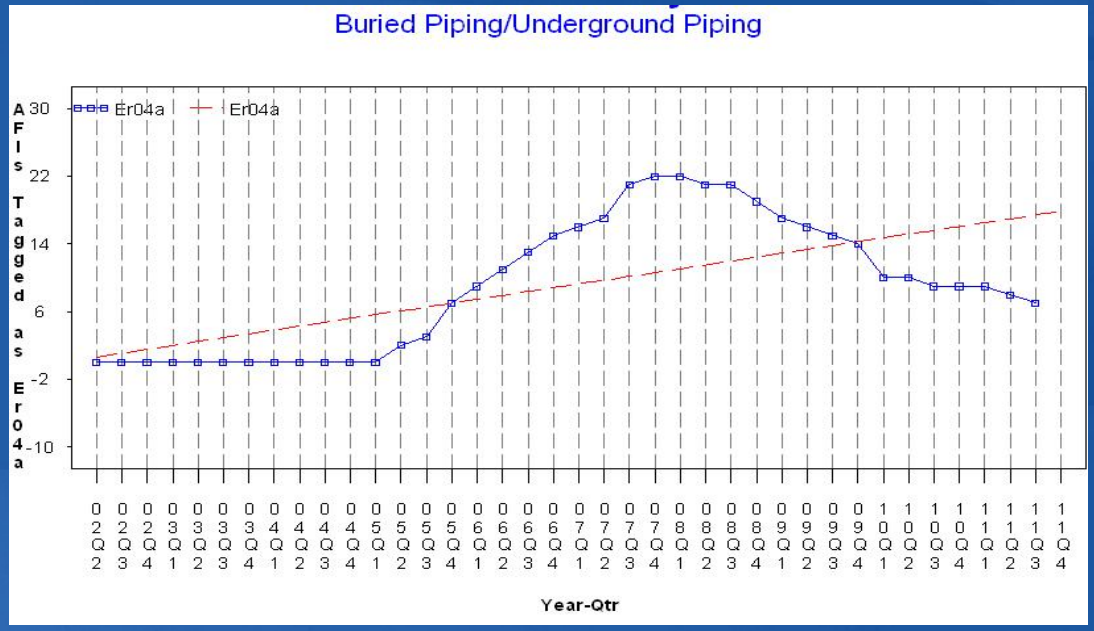
- Relative percentage of events in “run to failure” systems has increased over time as compared to the percentage in the other categories (69% in January 2012 versus 58% in July 2011 and 60% in January 2011)
- About 20% of the piping degradation has been on piping that is safety related, or contains radioactive or environmentally sensitive materials

Operating Experience



- The major reported failure causes was “other”. This category includes events that do not have a reported cause. Use of this categorization (essentially a default) makes an evaluation of failure trends difficult.
- Efforts are underway to encourage more detailed cause determinations and this is having some effect; 53% of the causes were listed as “Other” in July 2011

Program Performance



- Findings from INPO plant evaluations that have been associated with Buried Piping Programs ("AFIs Tagged as Er04a")
- Indicates an increasing trend as the programs were first implemented and a decreasing trend since the beginning of 2008

NDE Technology

- Revision to the “Buried Pipe NDE Reference Guide” (1022930) issued in December 2011
- Assessing and developing NDE technologies to provide more accurate and rapid volumetric examinations from the exterior pipe surface
- Developing a technology to perform a volumetric examination through coatings
- Facilitating inspection technology transfer from other industries into nuclear power
  - Internal inspection technologies present additional challenges due to access and retrieval difficulties
- Enhancing guided wave applications

Overall Observations

- No major new observations on leakage trends or Initiative implementation this period
  - Utilities are implementing the UPTI as scheduled.
- Utility Buried Piping Programs are in place and improving
- Important to keep the focus on development of improved inspection technology
- Coordination of the Underground Piping and Tanks Integrity and Ground Water Protection Initiative
  - Workshop on September 7 and 8, 2011 in Denver.
  - NEI 11-07 issued in December 2011 (*Coordination of the Enhanced Inspection and Environmental Monitoring Initiatives (Ground Water Protection Initiative and Underground Piping and Tanks Integrity Initiative*)