



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

NRC Temporary Instruction 182 Status- Buried and Underground Piping and Tanks

U. S. Nuclear Regulatory Commission
Buried and Underground Piping Public meeting
January 21, 2015

Temporary Instruction Observations

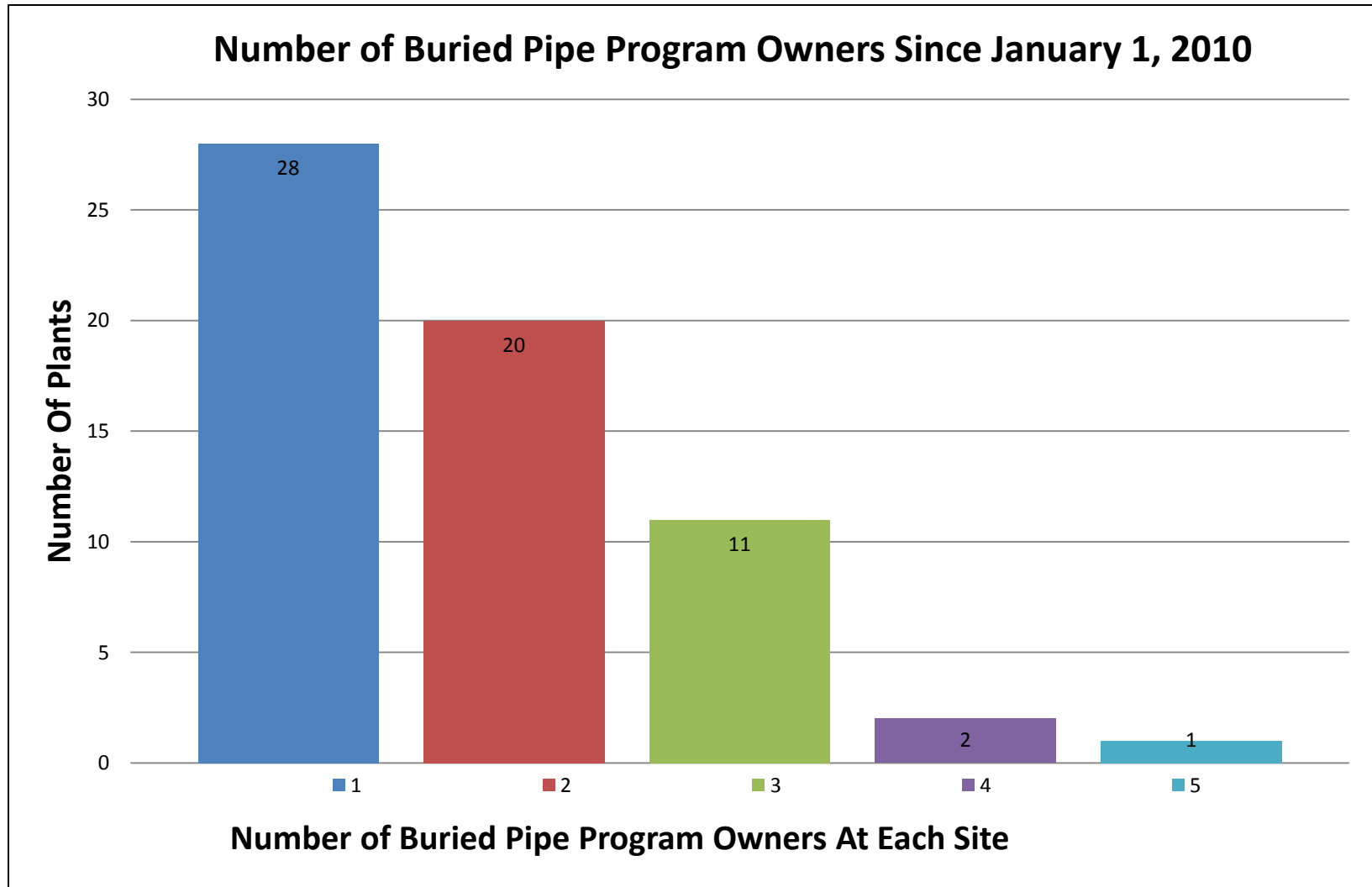
- TI in two phases
 - Phase 1
 - Assessment of plant programs with Initiative
 - Compliance with initiative dates
 - Complete
 - Phase 2
 - Assessment of program quality
 - Complete

Temporary Instruction Observations

- Phase 2 questionnaire grouped into 5 topics
 - Program Ownership
 - Program Performance
 - Risk Ranking
 - Inspections
 - Leaks or Significant Degradation

Program Owners

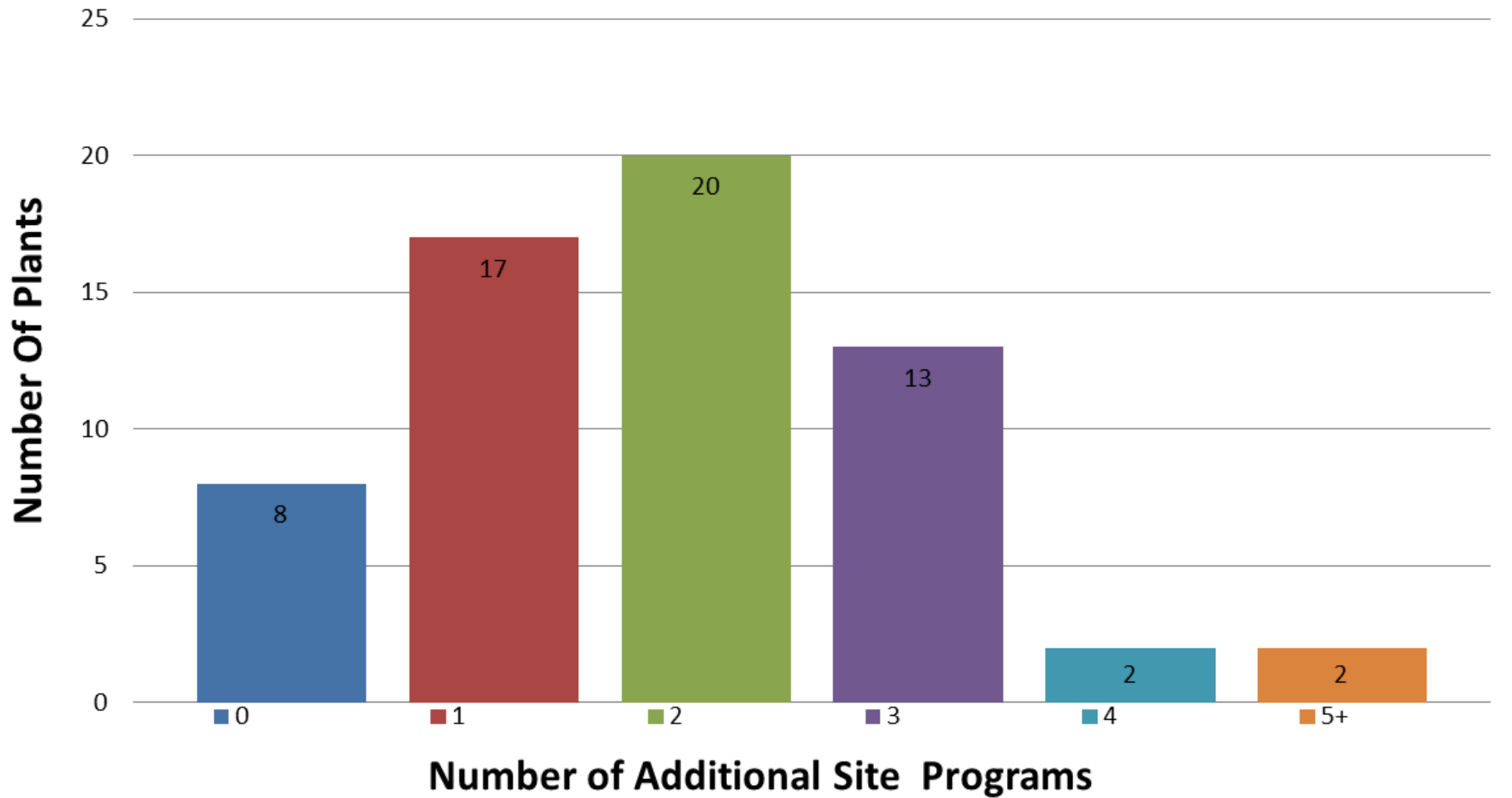
- Tenure varies significantly by plant



Program Owners

- Buried pipe and cathodic protection program owners are different people
 - Close coordination required, but not always evident
- Some plants have no in house or in fleet cathodic protection expertise but nearly everyone has expertise or hires expertise

Number of Other Site Programs Assigned to the Buried Piping Program Owner



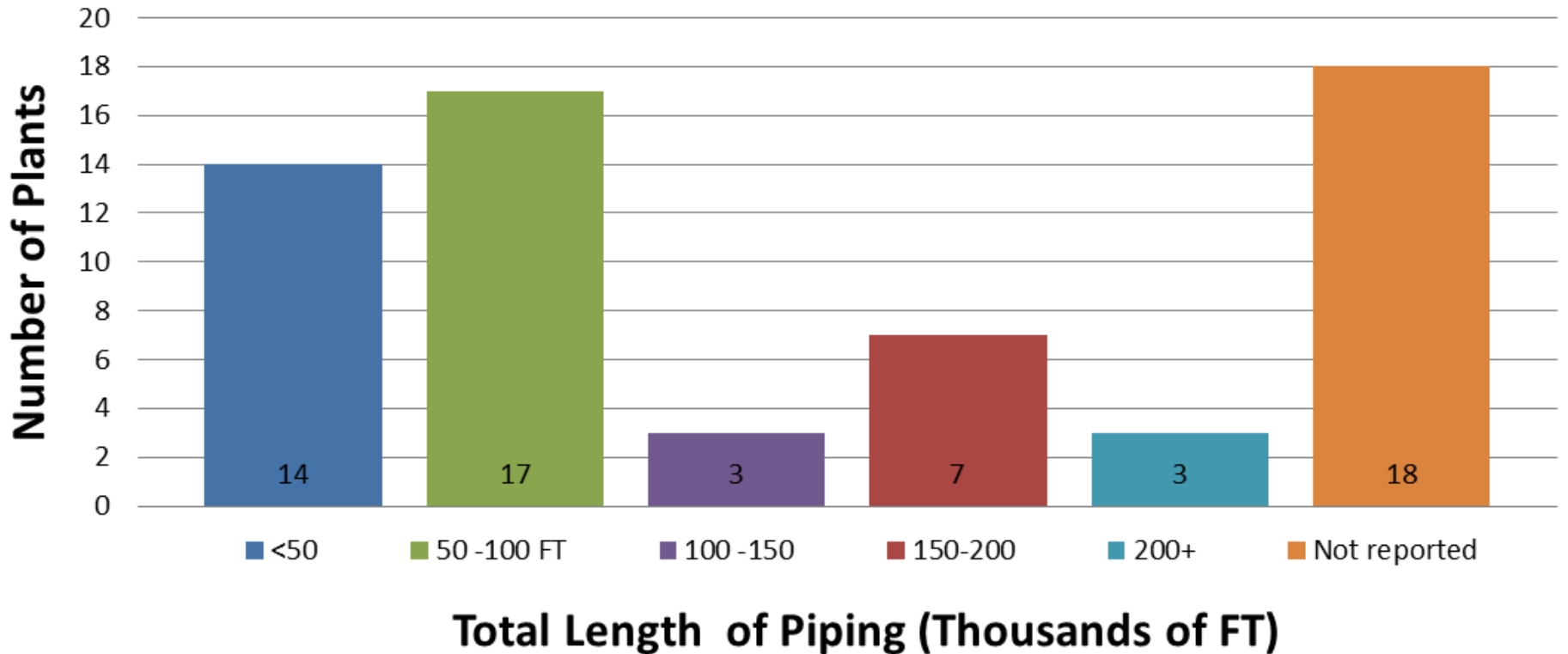
Program Performance

- System health reports having a large effect
 - Improving the quality of buried pipe program.
 - Updated and developed in a periodic timeframe (quarterly)
- No procedures to confirm the as-built location of buried and underground piping and tanks.
 - But, have shown the ability to locate and excavate buried and underground piping successfully.
 - In general no programs exist to confirm the as-built locations.

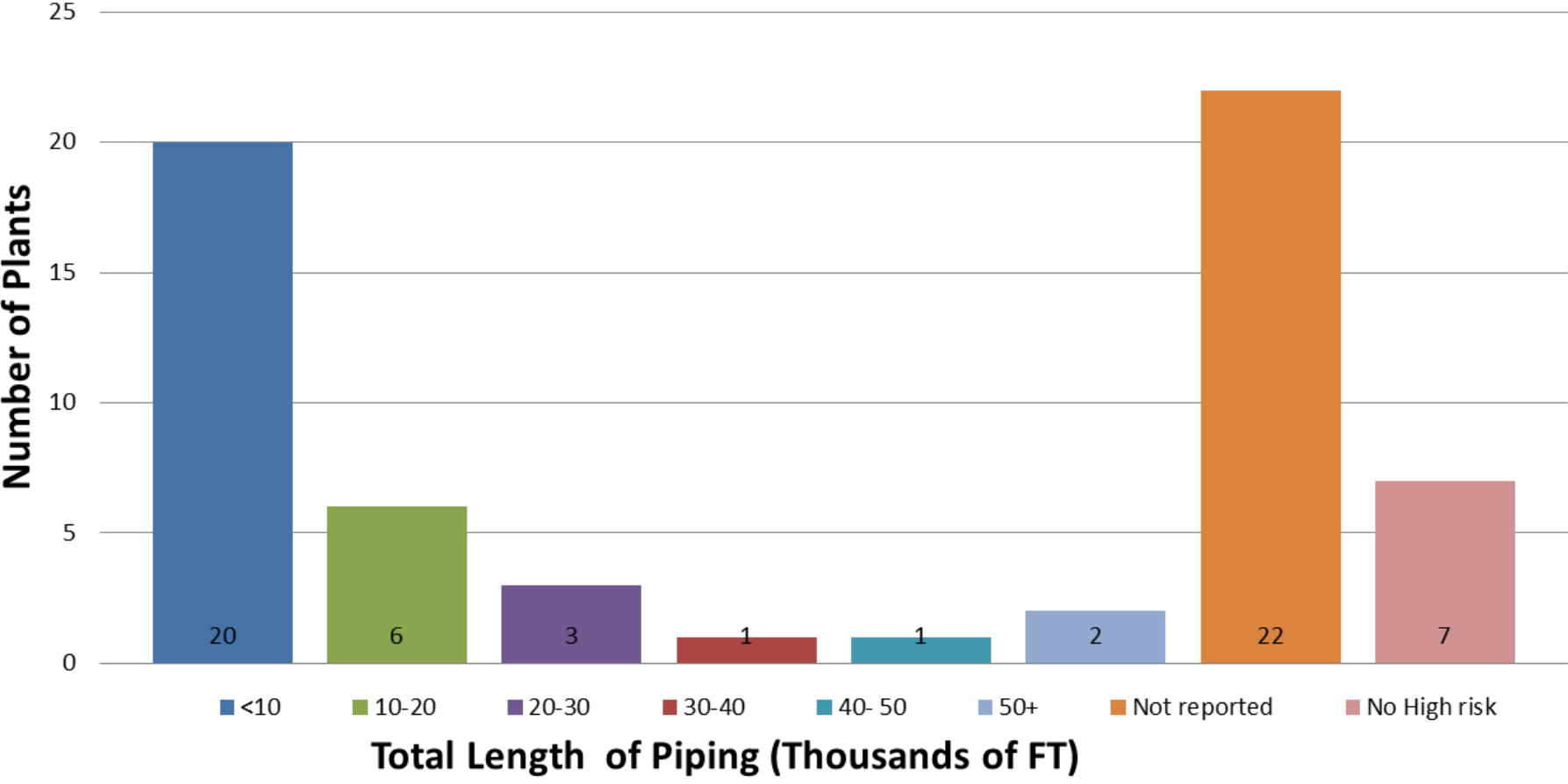
Risk Ranking

- Results described as appropriate
 - Some plants more comprehensive
 - Some plants have no high risk pipe
 - unanticipated
 - Piping carrying licensed material ranked other than high
 - Also possible but unexpected

Total Length of Buried/Underground Piping Included In The Initiatives



Total Length of High Risk Buried/Underground Piping Included In The Initiatives



Piping Inspections

- Being conducted as scheduled
- Some inspections were still pending and were on track for the December 31, 2014 due date.

Leaks or Significant Degradation

- Of 62 plant site inspections, 33 inspections reported that they had leaks and or degradation of piping systems.
 - Able to determine the cause of the leak.
- Approx. half of the plant sites performed an extent of condition analysis.
- NDE was found to be in accordance with procedure
- Licensees are meeting the pressure testing requirements of ASME Sections XI IWA-5244.

Summary

- Tenure varies significantly by plant
- System health reports having a large effect
- Risk Ranking results described as appropriate
- Licensees are meeting the pressure testing requirements of ASME Sections XI IWA-5244.
- NRC will continue to participate in industry/consensus groups