



**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

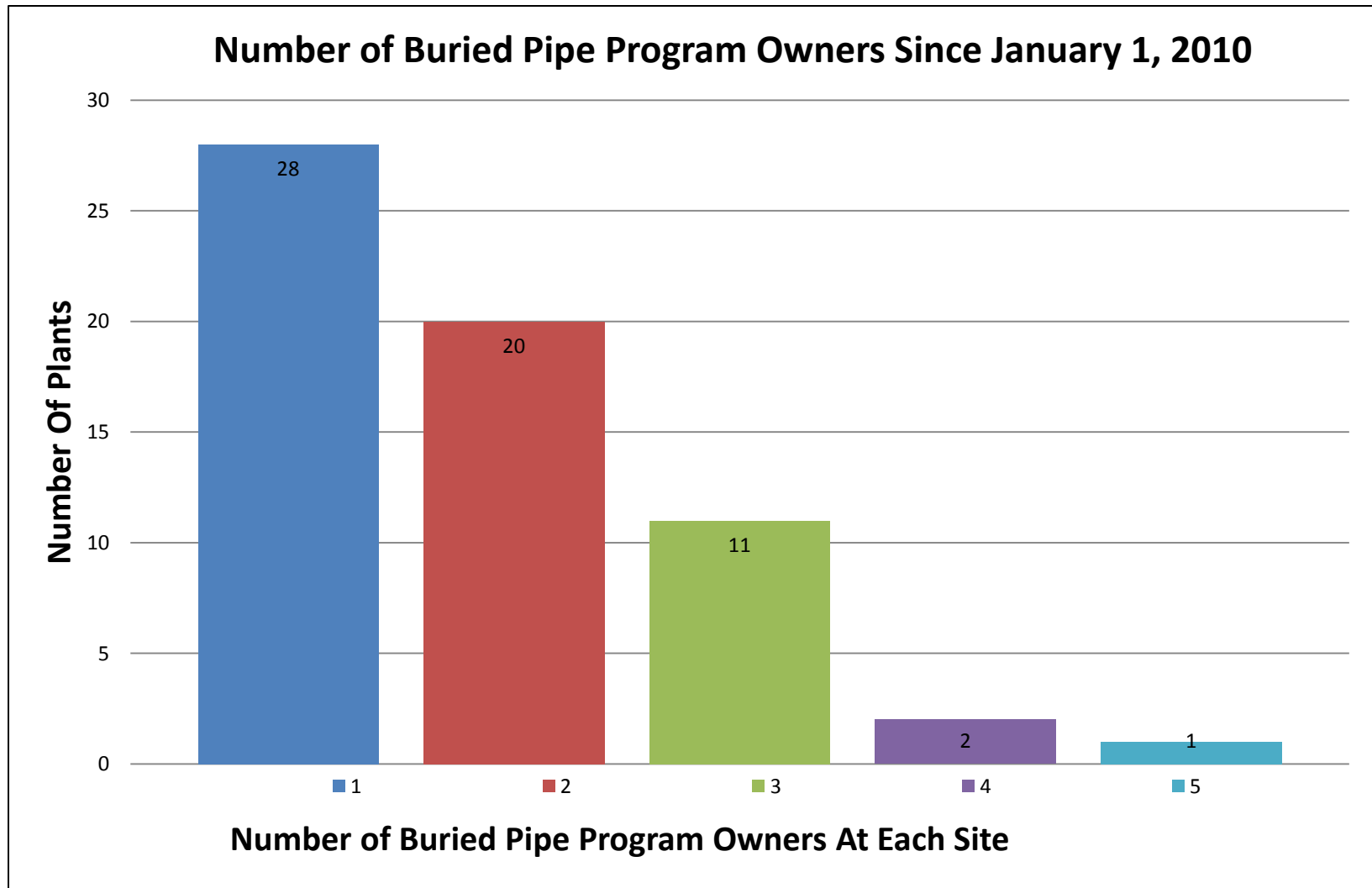
- TI in two phases
  - Phase 1
    - Assessment of plant programs with Initiative
    - Compliance with initiative dates
    - Complete
  - Phase 2
    - Assessment of program quality
    - Complete

# Temporary Instruction Observations

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

# Program Owners

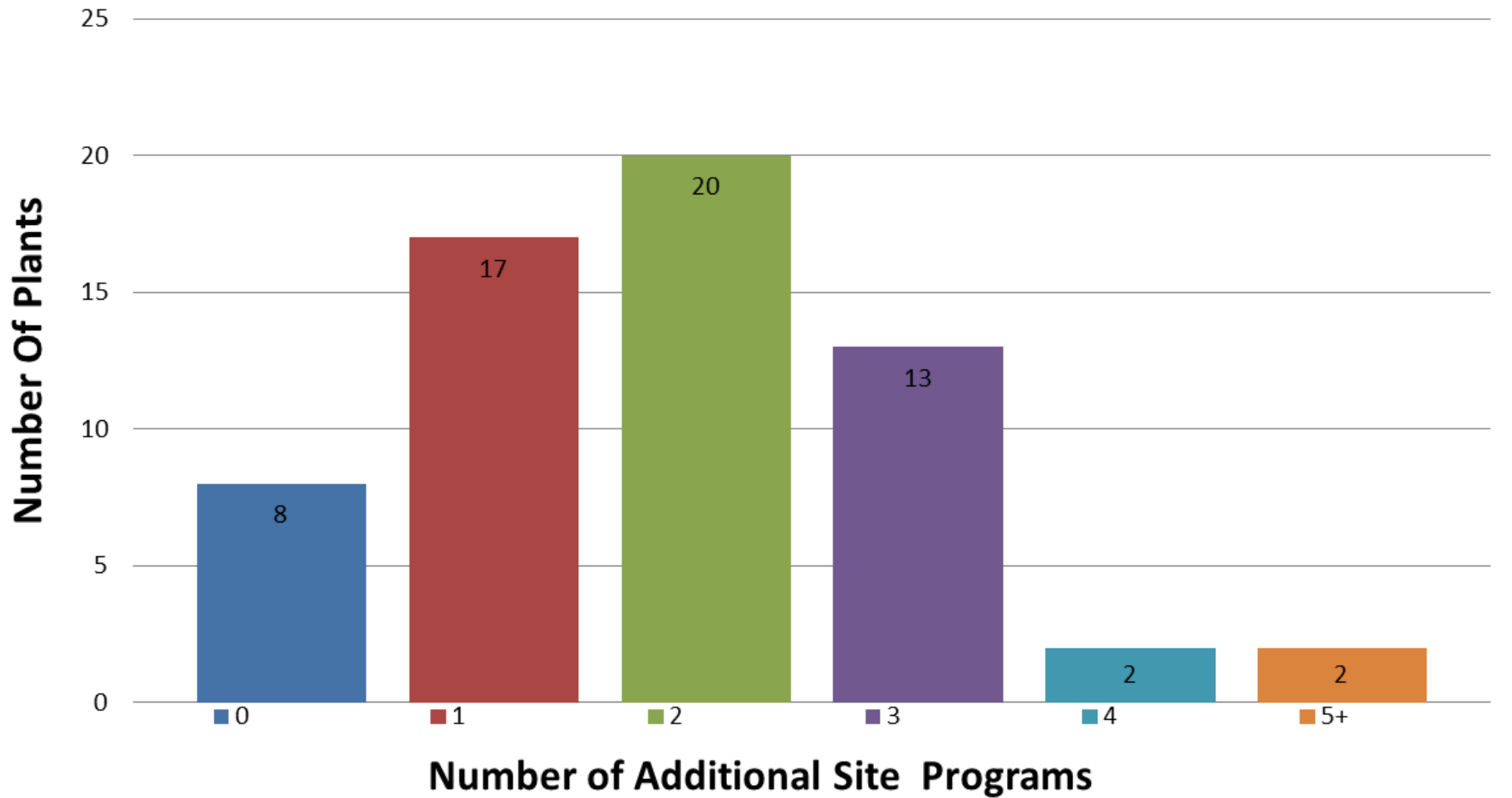
- Tenure varies significantly by plant



# 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

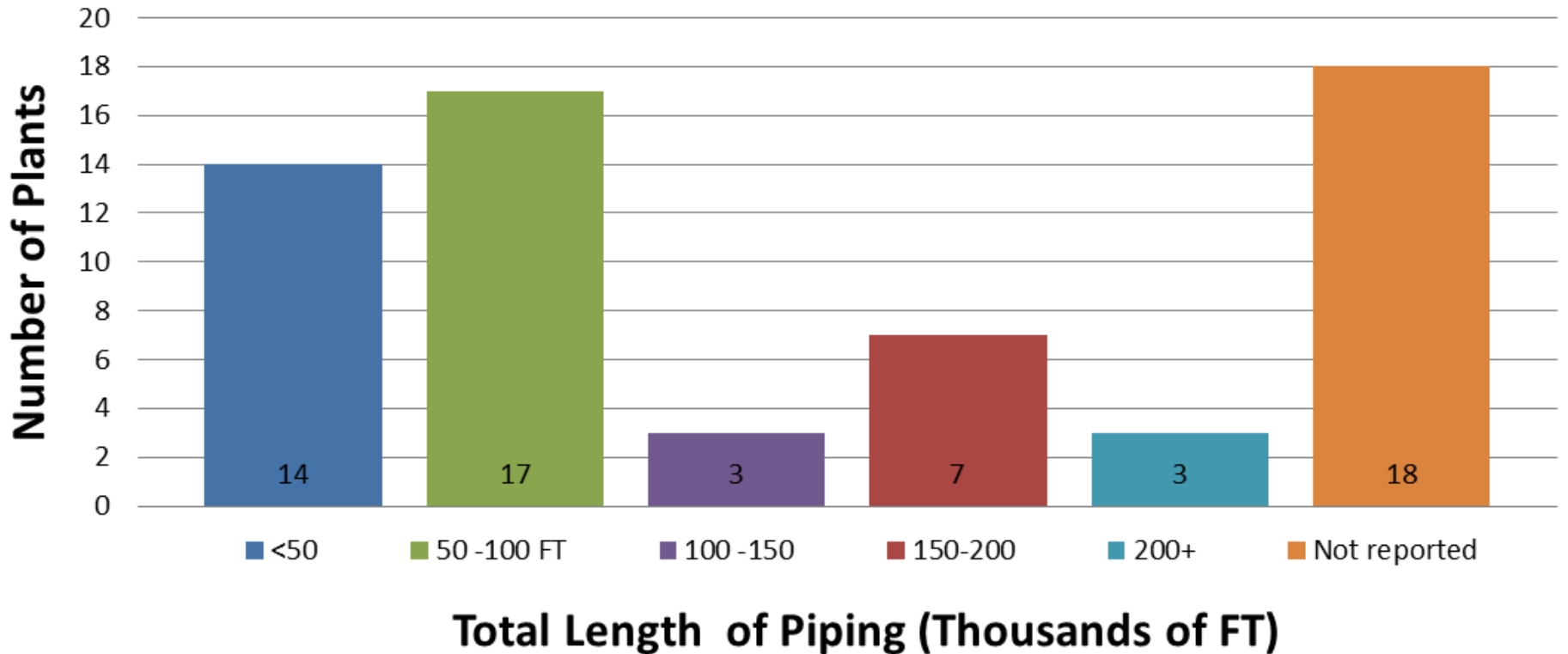
- System health reports having a large effect
  - Improving the quality of buried pipe program.
  - Updated and developed in a periodic timeframe (quarterly)
- No procedures to confirm the as-built location of buried and underground piping and tanks.
  - But, have shown the ability to locate and excavate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

# Risk Ranking

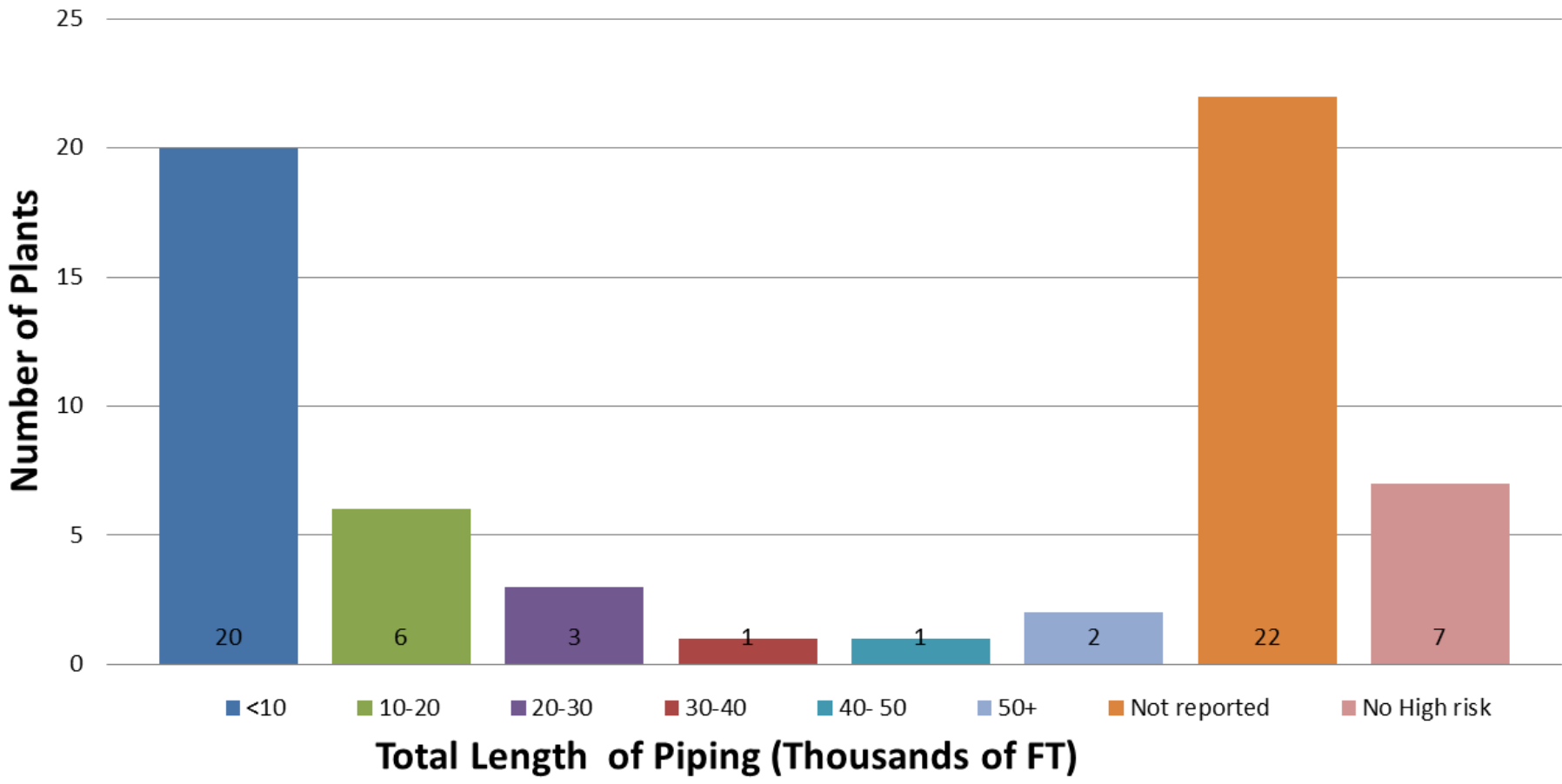
- Results described as appropriate
  - Some plants more comprehensive
  - Some plants have no high risk pipe
    - unanticipated
  - Piping carrying licensed material ranked other than high
    - Also possible but unexpected



## 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