



## **NEI - Buried Pipe Integrity Task Force**

## **EPRI Buried Pipe Integrity Group Update**

#### **David Smith**

Program Manager-Balance of Plant Corrosion

**NRC/Industry Meeting on Buried Pipe** 

April 25<sup>th</sup>, 2013 White Flint, MD

## **EPRI Buried Pipe Integrity Group (BPIG)**

- Buried Pipe Integrity Group (BPIG) formed in 2008
- Membership
  - All US Nuclear utilities
  - International members from Canada, France, U. K., Brazil, and Korea

#### Provides:

- Forum for program owners to discuss buried pipe issues and exchange experiences (OE Sharing)
- Forum to obtain a consensus on industry issues and program practices
- Technical support on buried pipe issues, as well as support for related products including BPWORKS<sup>TM</sup>
- Related training
- Interface with Vendor Support
- Sponsor related R&D



## **EPRI Buried Pipe Integrity Group (BPIG)**

- The industry is actively engaged:
  - Meeting attendance and participation is strong

	July	February	
	55	86	2008
Numbers do not include EPRI Staff	70	76	2009
	149	134	2010
	165	174	2011
	131	166	2012
		128	2013

- Discussions have followed the phases of the Initiative
  - Early topics focused on programmatic issues
  - Current topics on implementation and inspection



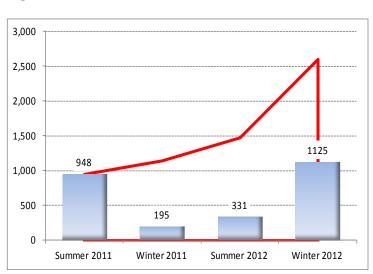
## **EPRI Buried Pipe Integrity Group (BPIG)**

- Highlights from the February 2013 Meeting:
  - NRC, NEI, INPO, ASME, NACE, and ANI Updates
  - Utility Round Robin-Attendees discuss issues and successes
  - Operating Experience presentations focused on inspection
    - 8 detailed experiences related to piping
    - 2 experiences related to tanks
  - NDE Technology Updates for piping and tanks
  - EPRI Project Updates
    - Fire testing of HDPE
    - Update to the Buried Pipe Reference Guide
    - Assessment Management Plan Guidance
    - Buried Pipe Lessons Learned
    - Buried Pipe Inspection Results Database (BPIRD)



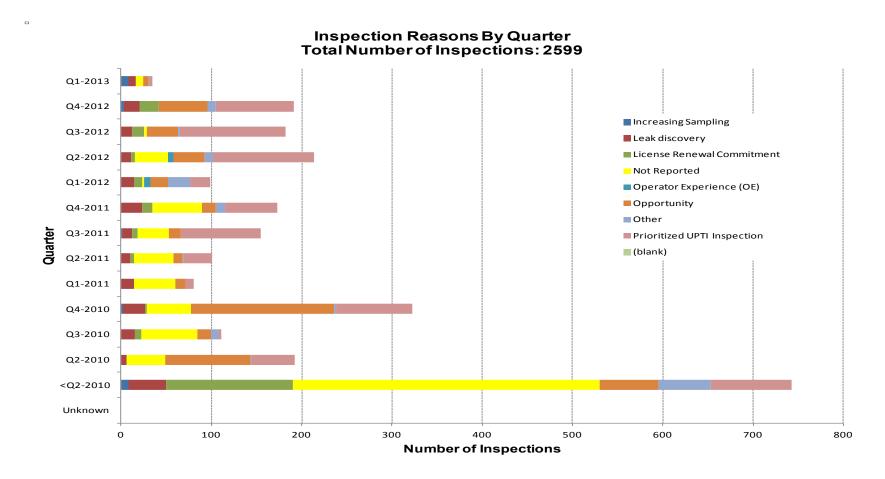
# **Buried Pipe Inspection Results Database**

- Developed to compile and share inspection results
  - Good data as well as bad data
  - Help determine where to inspect
  - May provide basis for optimized inspections
- NEI 09-14 requirement for reporting results
  - Updates provided at BPIG meetings
- Results to date (February 2013)
  - Total of 2599 inspection records



### **2013 BPIRD Charts**

Reasons for Inspection:



### 2013 BPIRD Charts (continued)

Inspection Method:

#### **Inspection Method % by Number of Inspections**

Broadband Electromagnetic (BEM) 4%

Visual OD 21%

Guided Wave Testing (GWT) 13%

Leak 1%

Visual ID w/Crawler 3%

Other Technology 15%

Visual ID 9%

Over the Line Survey
Pressure Test 3% 0%
Pulsed Eddy Current 0%

Repair 1% Unknown 0%

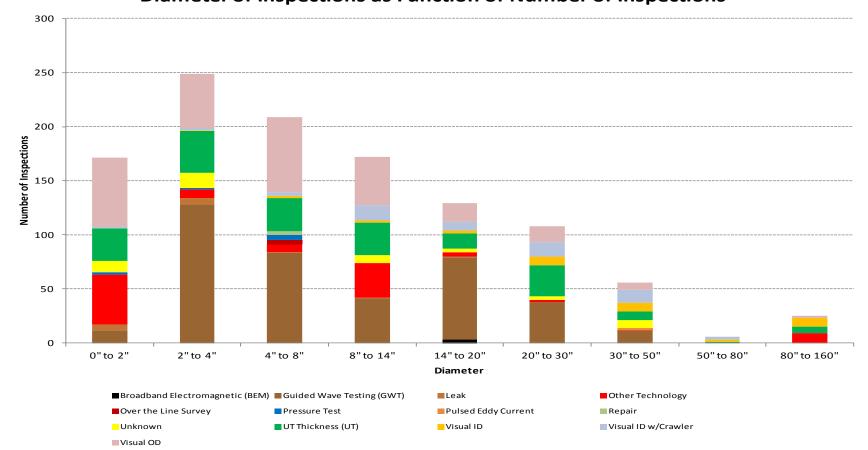
UT Thickness (UT) 26%



## 2013 BPIRD Charts (continued)

Diameters of Pipe Inspected:

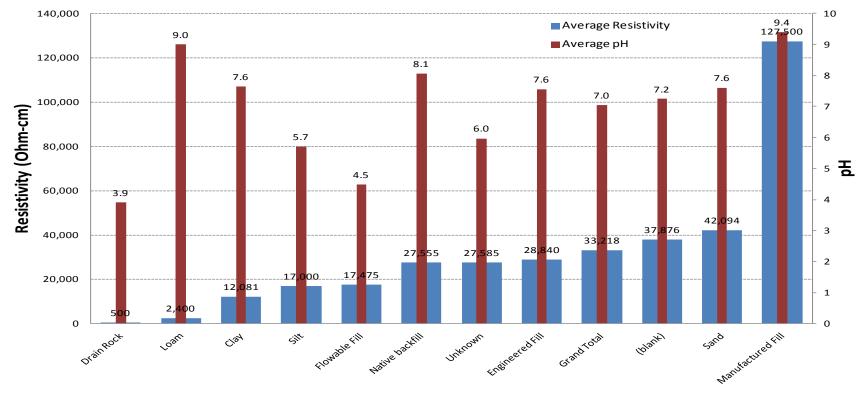
#### Diameter of Inspections as Function of Number of Inspections



## 2013 BPIRD Charts (continued)

Resistivity/pH by Fill Type:

# Resistivity/pH by Type of Fill BPIRD Final Dataset



## **EPRI's Cathodic Protection User Group (CPUG)**

- CPUG was formed in 2011
  - Forum for program owners to discuss CP issues and exchange experiences (OE Sharing)
  - Obtain a consensus on industry issues and program practices
  - Interface with Vendor Support
  - Support related R&D
- Meets once per year in conjunction with BPIG
  - 3 web casts/year (May, Aug, Nov)
- New Proposed Projects
  - CP performance criteria (Health Reports)
  - Qualification recommendations for CP personnel



## **EPRI's Cathodic Protection User Group (CPUG)**

- Highlights from the February 2013 Meeting:
  - Industry updates from NRC, INPO, and NACE
  - CP system presentations associated with monitoring, test stations, troubleshooting and understanding the survey results
  - Operating experience presentation on CP system Upgrade
  - EPRI Cathodic Protection related Project Updates
    - Cathodic Protection Maintenance Guide
    - CP System Design Specification
    - CP Criteria for Nuclear Power Plants
    - CP System Recommendations Document
    - Evaluation for Installing CP at Nuclear Plants
    - Buried Pipe Reference Document Update
    - CP System Engineer Training Course Outline Review



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