

# *Update on NACE TG 404 'Nuclear Buried Piping'*

*Gabriel Ogundele, Chair (Kinectrics Inc., Canada)*

*Pierre Roberge, Vice-Chair (Royal Military College, Canada)*

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*Presentation at the NRC Public Meeting  
April 4, 2012*



# *History*

- TG 404 Initiated during Corrosion 2009
- Workshop -Corrosion 2010
- Meeting -Corrosion Technology Week 2010
- Symposium -Corrosion 2011
- Meeting -Corrosion 2011
- Meeting -Corrosion Technology Week 2011
- Forum-Corrosion 2012
- Meeting -Corrosion 2012



# *Scope of TG 404*

**To produce a report on**

“State--of--the--Art Report of External Corrosion,  
Assessment, and Control of Buried Metallic and Reinforced  
Metallic Piping Systems in Nuclear Power Plants”



# *Forum Corrosion 2012 (March 11-16, 2012)*

## **Title of Forum:**

### *Nuclear Buried Piping – Procedures and Oversight to Provide Reasonable Assurance*

- “Overview of EPRI buried piping program guidelines and research into inspection and mitigation technologies”, *Tim Eckert, EPRI*
- “Coating issues in relation to buried pipes in nuclear power plants”, *Jon Cavallo, Enercon*
- “Cathodic protection issues in relation to buried pipes in nuclear power plants”, *Kevin C. Garrity, Mears Group (President, NACE International)*
- “Maintaining buried piping operations in nuclear power”, *Cassie Bitler, INPO*
- “Regulatory perspective on cathodic protection”, *David Alley, NRC*



# *Contributors*

Utilities

EPRI

Coating Experts

Cathodic Protection Experts

Inspection Service Providers



# *Table of Contents*

- 1.0 Issue Statement**
- 2.0 Definitions**
- 3.0 Recent Nuclear Buried Piping Activities and Publications**
- 4.0 Relevant Issues Regarding Buried Piping at Nuclear Power Plants**
- 5.0 Materials of Construction**
- 6.0 Coatings**
- 7.0 Cathodic Protection**
- 8.0 Inspection options**
- 9.0 Gaps**



# *Status of Report*

- Discussed extensively at the meeting held March 13 during Corrosion 2012.
- Disposition of TG members' comments completed
- Report undergoing “internal” review (i.e., within selected members of TG 404)
- “Final” comments to be reviewed before forwarding to NACE HQs
- NACE HQs will format report and send out for ballot
- *Dates TBD*



# *Subsequent Work*

- Release of report “completes” the scope of TG 404
- New Task Groups (TGs) and Technology Exchange Group (TEG) will carry-forward the gaps itemized in the report
- Chairs have signed up to actualize the requirements





# ***NEW TEG***

- **Name**: TEG 465X “Nuclear Buried and Underground Piping”
- **Task**: To liaise between the sponsoring committees and the specific task groups which will develop standards, training, inspection, and assessment of buried/underground piping in nuclear power plants while focusing on discussions for the application of cathodic protection and coating systems.
- **Chair**: Gabriel Ogundele (Kinectrics Inc.)
- **Vice-Chair**: Hank Kleinfelder (Mears Group)
- **Administering STG**: STG 41
- **Sponsoring STGs**: STG 03, STG 05, and STG 35



# *Path Forward*

- Develop Standard for Cathodic Protection for Buried Piping in Nuclear Power Plants
- Develop Standard for Coatings for Buried Piping in Nuclear Power
- Develop Standard for Materials Selection for Buried Piping in Nuclear Power Plants
- Develop Standard for NDE of Buried Piping in Nuclear Power Plants
- Review Training for Nuclear Buried Piping

**All new TGs will report at the Corrosion Technology Week 2012 with first draft**

# *Future Meeting (TEG 465X)*

- Corrosion Technology Week 2012, September 16-20, 2012, New Orleans, (Discuss Draft of TG Deliverables)
- Symposium Corrosion 2013
- Meeting Corrosion 2013



# *QUESTIONS*

