



Performance Demonstration Program Update

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PDI/NRC Meeting
June 2012

Piping Activities, Jan – June 2012

- Personnel Qualifications (General Statistics)
 - **42** Manual (Non-Encoded) Personnel Candidates (3 Fast Track)
 - Initial Supplement 2 or 12 detection = **38%** (**16/42**)
 - IGSCC detection requalification = **21%** (**7/42**)
 - Depth (initial and requal) = **24%** (**10/42**)
 - Initial: **80%** (**8/10**)
 - Requalification: **20%** (**2/10**)
 - WOR = **14%** (**6/42**)
 - DSM = **7%** (**3/42**)
 - **14** Automated or Encoded Personnel Candidates
 - Initial Supplement 2 or 12 detection = **14%** (**2/14**)
 - IGSCC Requalification = **50%** (**7/14**)
 - Depth sizing (initial and requalification) = **36%** (**5/14**)
 - **57%** of total piping personnel qualifications were using Phased Array
 - Manual (Non-Encoded) = **48%** (**20/42**)
 - Automated or Encoded = **86%** (**12/14**)

Piping Qualifications, Jan – June 2012

- Procedure Qualifications
 - Plant-specific add-ons (tapered components) to a manual (non-encoded) PA EPRI procedure (CE safety injection, pressurizer spray & cold leg drain)
 - Plant-specific add-ons (tapered components) to a manual (non-encoded) PA vendor procedure (CE safety injection, pressurizer spray & cold leg drain)
 - Table 1 additions (contoured wedges) to an automated encoded PA weld overlay vendor procedure
 - Automated encoded PA Supp. 10 & 2 procedure expansion (in-progress)
 - Increasing wall thickness range
 - Changing UT cabling & profilemetry technique
 - Demonstrating use of irrigation system for non-flooded weld locations

Future Piping Activities - 2012

- Automated encoded PA Suppl. 10 & 2 ID detection and sizing qualification (3rd quarter)
- Plant-specific add-ons (tapered components) to a manual (non-encoded) PA EPRI procedure (CE pressurizer spray and cold leg drain) (3rd quarter)
- Manual (non-encoded) PA Suppl. 12 vendor procedure qualification (4th quarter)
- Low angle (30° RL) addition to an automated encoded PA DM weld vendor procedure (4th quarter)
- PD staff will provide support for Swiss utility during qualified piping inspections (Aug-Sept)

RPV Qualifications Jan – June 2012

- Personnel Qualifications

- 3 vessel, 1 bolting candidates
 - Automated personnel qualification vessel (1)
 - Manual personnel qualification vessel (2)
 - Manual Bolting (1)
- None were using phased array

- Procedure Qualifications

- Generic manual (non-encoded) conventional vessel sizing procedure - thickness expansion
 - From 7.64" t up to 12.29" t vessel wall

Ongoing and Future RPV Activities 2012

- Planned Qualifications - 2012
 - **Wesdyne** – Automated encoded conventional vessel analysis – personnel qualifications (July)
 - **Wesdyne** – Automated encoded conventional nozzle collection and analysis - procedure qualification (July/Aug)
 - **Olympus** – Manual (non-encoded) conventional vessel - personnel qualifications (July)
 - **GE Hitachi** – Manual (non-encoded) conventional vessel and nozzle - personnel qualifications (Aug/Sept)
 - **KKM / Cegelec** – Automated encoded conventional vessel and nozzle analysis – personnel qualifications (Oct/Nov)

Fabrication Activities, Jan – June 2012

- Samples currently being fabricated for future inclusion into the PD Program Library
 - 2" schedule 160 SST-SST weld (Quantity 10)
 - 4" schedule 10/10S SST-SST weld (Quantity 8)
 - 6" schedule 10/10S SST-SST weld (Quantity 7)
 - Japan DMW program samples – 31" ID x 3.20" t x 60° segments (Quantity 12)
 - (3) segments will have 52M inlay

Challenges

- 2012 looks to be a heavy utilization year for all aspects of the performance demonstration program
- Generic procedure revision process is ongoing
 - PDI-UT-6 (RPV welds) was recently completed
 - PDI-UT-7 (Sizing – RPV weld indications) is underway
 - PDI-UT-11 (RPV Nozzle-to-Shell and Nozzle IR) is next
- The PDI committee and EPRI are looking at ways to clarify and strengthen the ASME rules for equipment equivalency
 - Code Case N-780 process
 - Manual UT instruments equivalency checks
- Continuing to work with NSSS vendors on new plant component inspection issues



• **QUESTIONS???**