January 11, 2011

MEMORANDUM TO: Timothy R. Lupold, Chief
Piping and NDE Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

FROM: Ali Rezai, Materials Engineer **/RA/**
Piping and NDE Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING HELD ON NOVEMBER 30 AND DECEMBER 1, 2010, WITH THE ELECTRIC POWER RESEARCH INSTITUTE PERFORMANCE DEMONSTRATION INITIATIVE REPRESENTATIVES (TAC NUMBER ME2257)

On November 30 and December 1, 2010, the staff of U.S. Nuclear Regulatory Commission (NRC) participated in a public meeting with the representatives from the Electric Power Research Institute (EPRI) Performance Demonstration Initiative (PDI) program at Florida Power and Light Company Headquarter, 700 Universe Boulevard, Juno Beach, Florida. EPRI provides PDI's business operations and technical support. PDI is a nuclear power industry initiative established to develop and administer the qualification requirements of Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," to Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) and to develop and administer the demonstrations and qualifications of ultrasonic testing (UT) examinations of butt welds that are associated with other inspection programs.

The purpose of the meeting was to discuss PDI's approach for implementing selected aspects of Appendix VIII and associated items. The subjects discussed were: a) the PDI activities on the proposed ASME Code actions affecting UT examinations, b) UT cable equivalency, c) status report on the PDI piping program, d) status report on the PDI reactor pressure vessel (RPV) qualification program, e) status report on the NRC funded nondestructive examination (NDE) projects at the Pacific Northwest National Laboratory (PNNL), f) overview of ASME nondestructive examination (ANDE) personnel certification program, g) PDI program for qualification of mitigated dissimilar metal (DM) welds, and h) NRC presentation on depth sizing root mean square error (RMSE) issues. These meetings are a continuation of formal dialog between the NRC and the industry on PDI's implementation of Appendix VIII and other NDE issues of mutual interest. The dialog provides opportunities to discuss testing difficulties, review PDI's program methodology for the selected supplements, and address issues regarding the ASME Code. The meeting participants and agenda are listed in Enclosures 1 and 2, respectively. Open items and action items are described in Enclosures 3 and 4. Handouts and presentations provided at the meeting are listed in Enclosure 5.

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PDI ACTIVITIES ON ASME CODE ISSUES

PDI discussed the pending ASME Code items related to Appendix VIII that PDI needs to take action on at the next ASME Code meetings. The pending items listed were the things identified in presentation titled "ASME Code Update" in Enclosure 5.1. As a result of PNNL's report on the development of Appendix VIII, EPRI is securing funding to provide an industry perspective to the report which will be issued by the NRC as a NUREG. In addition, PDI stated that the changes to Supplement 1 to expand its application are also included in the pending items to discuss.

EPRI, PDI, and other industry participants actively expressed their concern regarding the currently proposed NRC rulemaking on the ASME Code edition and addenda update in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a. PDI stated that the proposed NRC rulemaking allows some licensees to continue using the 2001 Edition of the ASME Code, Section XI, for Appendix VIII while those updating for their next interval the 2007 Edition or the 2008 Addenda of the ASME Code, Section XI, placing an undue logistical and administrative burden on PDI and multiple plant licensees. PDI has suggested that mandating all licensees to adopt the 2008 Addenda of the ASME Code, Section XI, for Appendix VIII and placing a mandatory implementation date by the NRC will eases undue logistical and administrative burden on the industry. The NRC noted the concern.

ULTRASONIC CABLE EQUIVALENCY

PDI presented the UT cable equivalency project overview and stated that this project was started in 2008 with subscriber-requested assistance (SRA) funds and approved in 2009 for 2010 PDI NDE Center funding. The project goals are: PDI wants to update the generic procedure for cable variation to minimize the possibility of errors in the field and reduce personnel radiation exposure during inspections. PDI tested cables with length ranging from 6 feet up to 24 feet long and a maximum of three intermediate connectors. The testing was limited to only conventional manual UT techniques. PDI stated that ASME Code, Section XI, Appendix VIII, Supplement 1, discusses cables but not change in cable length or number of connectors.

Industry asked PDI if ASME Code Case N-780, "Alternative Requirements for Upgrade, Substitution, or Reconfiguration of Examination Equipment When Using Appendix VIII Qualified Ultrasonic Examination Systems," discusses cable extension. PDI responded that ASME Code Case N-780 only expresses instrument substitution but not changes in cable length or number of connectors. Industry asked for PDI justifications in selecting 24 feet cable with three connectors for testing. PDI responded that this was recommended by EPRI's NDE and electrical engineer experts to demonstrate the worst case. Using less than 24 feet long cable or fewer than three intermediate connectors have less effect. Industry recommended that the NRC reviews this study. The NRC staff stated that the NRC would like to review the final report. PDI stated that the final report will be published in December 2010 and could be made available to the NRC.

PDI PIPING PERFORMANCE DEMONSTRATION PROGRAM UPDATE

PDI stated that its personnel piping qualifications activity so far in 2010 included new updating procedure and candidates with a mixture of manual and fully automated phased array and

conventional UT systems. PDI expects the request for requalification in year 2011 of about 200 candidates. PDI did not present any statistics on the pass or fail rates, total passes, and the number of inspectors that are effectively in the pool to provide the type of NDE support that is needed to conduct the different Appendix VIII examinations.

PDI reported successful completion of five procedure qualifications including three procedure expansions and two procedure equivalencies in 2010. For procedure expansions the UT systems included manual phased array and fully automated phased array for Supplement 10. The procedure equivalencies pertained to changes from Tomoscan to Omniscan and from Tomoscan to Zscan. PDI continue to support procedure qualifications planned for December 2010 and January 2011.

PDI reported that the UT fingerprinting and quality assurance of 36 newly fabricated dissimilar metal welds and weld overlay (WOL) mockup samples are ongoing. These samples will be added into the Appendix VIII piping program as soon as fingerprinting efforts have been completed. The other ongoing activities include: a) PDI generic piping procedures that are currently being reviewed and revised, as necessary, b) PDI committee is working to establish some ground rules on how to perform equipment equivalencies required by ASME Code Case N-780, “Alternative Requirements for Upgrade, Substitution, or Reconfiguration of Examination Equipment When Using Appendix VIII Qualified Ultrasonic Examination Systems,” and c) PDI is beginning to enter into discussions with nuclear steam supply system (NSSS) vendors on new plant component inspection issues.

PDI discussed the revision to generic piping procedures, PDI-UT-1 and PDI-UT-3, which are slated for the end of year issuance. The revisions will incorporate guidance for embedded flaw examination as well as some of the other changes incorporated in PDI-UT-2, Revision E. The NRC staff asked PDI what constitutes guidance. PDI pointed out that guidance is neither a qualification nor a procedure but it provides the inspector instructions on how to proceed or handle a particular case or cases such as embedded flaws.

The NRC staff asked whether PDI expects any relief requests to be submitted by licensees regarding qualification for inspection of large diameter pipe from inside diameter (ID) for detection of surface connected or very near surface flaws. PDI responded that no relief requests are expected and some vendors have already been qualified for detection. For characterization or verification of flaws as surface connected or for zones not examined by UT due to surface conditions or inaccessibility, PDI stated that the vendors tend to supplement UT with the eddy current testing (ET) examinations. Furthermore, PDI stated that the vendors fully qualified for UT also use ET examination for the characterization of flaws detected by UT. PDI pointed out the ASME Code Case N-773, “Alternative Qualification Criteria for Eddy Current Examinations of Piping Inside Surfaces,” that was recently approved by the ASME Code, allows ET to be used to complement UT.

PDI REACTOR PRESSURE VESSEL (RPV) DEMONSTRATION PROGRAM UPDATE

PDI reported that its RPV program has not been utilized to the extent projected for 2010. This might be due to vendors using the same equipment or possibly taking advantage of ASME Code Case N-780. PDI was not sure. PDI RPV program personnel are supporting other qualification programs to fill their schedules.

PDI stated that the program outlook is the utilization by international vendors seeking qualifications and/or technical justification and domestically for equipment substitution as vendors seek qualification for new equipment. The NRC staff asked whether there has been any international interest for utilization of the PDI RPV program to satisfy their own code requirements. PDI responded that some countries use the PDI RPV program and mock-up specimens to support their own qualifications programs or code requirements. However, they also have configurations that the United States do not have.

PDI WELD OVERLAY PROGRAM

PDI presented status updates on the weld overlay (WOL). The utilities have increased the use of WOL during the past 5 years which has been more than PDI originally anticipated. The bulk of the increase is related to complex geometry configurations. For example, approximately 250 overlays were applied to pressurized water reactor (PWR) dissimilar metal weld nozzles since 2003 and additional locations are being evaluated with many new configurations.

The focus of talk was mainly on a project related to the fabrication of new mock-up test specimen during 2009, 2010, and 2011 to expand the PDI weld overlay specimen library. This project targets fabrication of new DM weld test specimens with full structural weld overlay (FSWOL) and optimized weld overlay (OWOL) containing DM geometries that resemble configurations across the fleet (e.g., DM geometries mitigated or repaired in the past five years). The newly fabricated samples contain flaw distributions that support not only the current PDI procedures and personnel qualifications efforts but also the newly proposed ASME Code revisions (i.e., UT inspection qualifications for OWOL and qualifications for WOL thickness ranges). The configuration of many of these new samples presented during the meeting helps to understand their uniqueness and why new specimens are needed.

In response to the NRC staff question regarding the reason for more samples, PDI responded that more samples provide improvements in the PDI qualifications processes. The new samples provide flexibility to PDI qualifications testing, e.g., PDI will have enough samples to administer retake tests to those personnel who fail the qualifications test.

PDI reported that the UT fingerprinting and quality assurance of the newly fabricated DM weld mockups are on-going and will be continued in 2011.

PNNL UPDATE ON NRC FUNDED PROJECTS

PNNL presented an update on the inspection of far side austenitic welds. PNNL reported the completion of a draft NUREG/CR for phased array work on several cast austenitic stainless steel (CASS) pressurizer (PZR) line nozzle specimens. PNNL is currently incorporating NRC reviewer comments into the NUREG/CR report. Industry asked if PNNL was successful with far side inspection of austenitic welds with and without weld crown. PNNL responded that both were looked at, some flaws have stronger responses than others. The crown removal expands the inspection area for better interrogating the volume of interest from the ID surface with different angles. PNNL stated that occasionally some crack tips were found that could be used for depth sizing.

Industry commented that there is no consensus on accurately characterizing flaws in CASS. The qualifications of this technique would be very challenging. Industry stated that it is difficult

to justify spending more money on fabricating new samples and not be able to get substantial increase in the examination coverage. Eventually, relief requests would still be required from the NRC.

PNNL stated that it is waiting for EPRI permission to analyze the UT data acquired on the reactor coolant pump (RCP) DM weld of Florida Power and Light Company specimen. EPRI representative at the meeting verbally granted permission to PNNL to analyze the subject data.

PNNL is working with EPRI to acquire access to "practice" large-bore DM weld specimens. It is unclear whether PNNL will go to EPRI to perform UT examinations on these samples or the samples will be shipped to PNNL. PNNL does not have a scanner suitable for testing of these large-bore samples while EPRI has a large scanner. The NRC, EPRI, and PNNL are working together on logistics to determine the most efficient and cost effective way for this activity to proceed. No date has been agreed on yet.

EPRI asked the NRC staff for a copy of reports referenced in the PNNL presentation. These reports include: PNNL-19002, "Grain Structure Identification and Casting Parameters of Austenitic Stainless Steel (CASS) Piping," and PNNL-19325, "In-situ Characterization of Cast Austenitic Stainless Steel Microstructure: An Interim Study." The NRC staff stated that these reports were placed in the Agencywide Documents Access and Management System (ADAMS) and they are publicly available. The ADAMS Accession No. for PNNL-19002 is ML100252084 and for PNNL-19325 is ML103370373.

Regarding remote visual examinations (VT-1) activities, PNNL reported that Phase-I Round Robin testing at the EPRI NDE Center and its data analysis were completed in August 2010. PNNL is planning for Phase-II activities and continues collaborating with EPRI.

REVIEW OF CONTENTS OF MEMORANDUM OF UNDERSTANDING (MOU)

PDI briefly discussed the contents of the addendum to March 14, 2007, memorandum of understanding (MOU) between the NRC Office of Nuclear Regulatory Research (RES) and EPRI. The MOU includes the following four new NDE tasks.

1) Visual testing (e.g., round robin testing, analyzing results, and preparing NUREG report)
2) Cast stainless steel (e.g., in-situ characterization work, probabilistic analysis, eddy current testing capability assessment, and field condition evaluation)
3) UT and RT for repairs, replacements, and modifications (e.g., conducting workshops and equipment and technique evaluations)
4) Documentation of basis for Appendix VIII (e.g., developing and publishing technical report)

PDI stated that the high density polyethylene (HDPE) piping may be added to MOU. Root mean square error (RMSE) was initially considered to be included in MOU but no decision has been made. PDI reported that the NRC Office of Nuclear Reactor Regulation (NRR) sent a letter dated November 8, 2010, to PDI Chair. The NRC letter addresses the RMSE issues and requests access to the PDI piping performance demonstration database. The NRC letter is publically available in the NRC Agencywide Documents Access and Management System (ADAMS) with Accession No. ML103120653.

PDI reported that MOU is in the legal negotiation stage and the target start date will be in 2011. The MOU work will not be co-funded and all work is subject to the availability of funding.

ASME NONDESTRUCTIVE EXAMINATION (ANDE) PERSONNEL CERTIFICATION PROGRAM

An ASME representative presented an overview of a proposed ASME nondestructive examination (ANDE) personnel certification program. This program would be administered by the ASME. The goal of ANDE program is to ensure the personnel conducting NDE examinations in nuclear power plants are adequately trained, qualified, and certified. ASME emphasized that the increasing workforce performance concerns or issues were the primary motivation in establishing the ANDE program. Furthermore, the implementation of the ASME Code, Section XI, Appendix VIII, performance demonstration had a low pass rate of 50% on the first attempt to pass the tests. The results of round robin studies over the past 30 years show a need for improved training and examination process for evaluating knowledge and skills of the personnel performing NDE examinations.

ASME stated that the ANDE program embraces all personnel certification best practices. It complies with the third party NDE certification organization requirements of a draft ASME Code Case N-788, "Third Party NDE Certification Organizations." ANDE has provisions for credential transfer for those qualified individuals previously certified under other acceptable programs. The provisions allow applications for credential transfer are accepted for one year and the transferred certifications are good for a 3-year transition period. Full recertification per the ANDE program is required following the transition period for the transferred certification.

Industry asked ASME if the ANDE program will be made mandatory. ASME envisions the ANDE personnel certification program will be an option not a requirement to industry. However, it will hand over the ANDE program to the ASME Code, Section XI and Section III committees to decide. ASME indicated that the possible options for the 3rd party witnessing tests could be the American Nuclear Insurer and/or the NRC (e.g., download tests to the utility's testing site and have the 3rd party witnesses the tests). Industry asked what is wrong with the American Society of Nondestructive Testing (ASNT) certification and it is difficult for industry to justify why the ASNT certification should be replaced with the ANDE certification and the cost associated with this change. ASME responded that ANDE will neither use "grading on a curve" nor "pass or fail" grading system. Instead ANDE will give a score (e.g., failed if scores below 70) which ensures only the qualified personnel enter to workforce.

Meeting participants commented that industry will choose the option that is cost effective for their facilities. One industry member commented that its company will not support the ANDE program at this time. Another member responded that industry should look at what is best for the future for the whole fleet and not just look at from one utility perspective.

NRC PRESENTATION ON DEPTH SIZING ROOT MEAN SQUARE ERROR (RMSE)

The NRC staff presented their concerns with the industry inability to meet 0.125 inch RMSE for performance demonstration performed from the inside surface of DM welds. The NRC presentation titled "NRC Request for Dissimilar Metal Weld Performance Demonstration Data on Inside Diameter (ID) Depth Sizing Error" is in Enclosure 5.10.

The NRC staff briefly reviewed the history of past PDI activities on the RMSE issues. In addition, the history of the NRC staff views and recommendations for the resolution of these issues were also presented. The PDI implications has been that the ID surface condition (i.e., rough and wavy ID surface) and increased wall thickness are the major contributor to UT shortcomings and account for the inability of the ID depth sizing techniques to achieve 0.125 inch RMSE. The NRC staff has not viewed the surface conditions as an impediment to meeting acceptable depth sizing error 0.125 inch RMSE. The NRC staff recommendations have been all along that achieving acceptable RMSE is dependent on surface conditions and vendors should specify surface conditions necessary for achieving the required RMSE qualifications.

The NRC presentation highlighted the NRC letter dated November 8, 2010, (ML103120653), sent to PDI Chair requesting access to the, piping DM weld, performance demonstration database. The NRC request is confirmatory research to better understand the issues surrounding the ID depth sizing RMSE. The NRC staff envisions having an independent statistician analyzes the PDI data to verify or establish proficiency acceptance criteria (e.g., proficient NDE personnel pass the test while non-proficient personnel failed). The NRC letter requested a response from PDI prior to the next semiannual management meeting held in Washington, D.C. in June 2011.

Comments from industry and discussions between the meeting participants regarding the contents of this presentation were highlighted here. Industry commented that no one has provided any information to demonstrate there is a safety concern with the current PDI approach on RMSE. Industry commented that surface geometry is the cause of not meeting 0.125 inch RMSE, that a smooth ID surface should be able to meet 0.125 inch RMSE, and that there are no smooth ID surface configurations in the field. Industry commented that having smooth ID surface specimens for the PDI test makes the test easier to pass and PDI disagrees with making the test easier to pass because it opens PDI to scrutiny. Industry commented that items of concern are material, surface smoothness and roughness, surface waviness, and the gap under the probe. PDI has data on each vendor's capabilities. Meeting participants were unsure of what would be accomplished that they do not already know. Industry commented that 0.125 inch RMSE is based on a range of wall thicknesses.

OPEN ITEMS AND ACTION ITEMS

Enclosure 3 provides details about the status of open items from the June 2010 PDI meeting. Enclosure 4 contains details about new action items created during the November-December 2010 PDI meeting and the open items from the June 2010 meeting that are not completed and/or closed.

NEXT MEETING

The next semiannual NRC-PDI meeting is scheduled for June 2011 in Washington, D.C., area. The exact time and location for the meeting will be announced.

Enclosures:
1. Attendance List
2. Meeting Agenda
3. Review of Open Items from June 2010 PDI Meeting
4. Open Items–New Action Items during November-December 2010 PDI Meeting
5. List of Handouts and Presentations

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OFFICE	NRR/DCI/CPNB	NRR/DCI/CPNB	NRR/DCI/CPNB
NAME	ARezai	DNaujock	TLupold
DATE	01/10/2011	01/11/2011	01/11/2011

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ATTENDANCE FOR PDI/NRC MEETING,
NOVEMBER 30 AND DECEMBER 1, 2010

NAME	ORGANIZATION
William A. Jensen	NextEra Energy – Point Beach
Tim Lupold	USNRC, participated via phone
Terry McAlister	SCANA
Steve Sabo	WesDyne
Steve Doctor	PNNL, participated via phone
Stephen Cumblidge	USNRC
Ronnie Swain	EPRI
Richard Fuller	First Energy
Randy Linden	PPL Susquehanna
Paul Sullivan	SIA
Mike Gothard	EPRI
Mike Briley	Entergy
Kevin Hacker	Dominion
Joel Harrison	URS
Jeremy Timm	LMR
James McArdle	Duke Energy
Gary Lofthus	SNC
Fred Hull	LMR
Frank C. Leonard	TVA
Donna Slivon	NextEra – FPL
Don Welch	Energy Northwest
Don Nowakowski	NextEra Energy
Don Naujock	USNRC
Dewey Munson	First Energy
David L. Anthony	Exelon
Damon Priestley	Progress Energy
Carol Nove	USNRC
Carl Latiolais	EPRI
Brad Thiqpen	AREVA
Bob Hardies	USNRC
Ali Rezai	USNRC

ENCLOSURE 1

AGENDA FOR PUBLIC MEETING

WITH THE ELECTRIC POWER RESEARCH INSTITUTE – PERFORMANCE DEMONSTRATION INITIATIVE
AT FLORIDA POWER AND LIGHT COMPANY HEADQUARTER
700 UNIVERSE BOULEVARD
JUNO BEACH, FLORIDA
NOVEMBER 30 AND DECEMBER 1, 2010

Tuesday, November 30, 2010, 9:00 a.m. – 5:00 p.m.

1. Introductions
2. Review of Previous Action Items
3. Status of ASME Code Nondestructive Examination Activities
4. Cable Equivalency Work
5. Status of the PDI Piping Program
6. Status of the PDI Reactor Pressure Vessel Program
7. Overlay Program Status
8. Status of PNNL Work on Single Sided Austenitic Piping
9. Status of PNNL Work on Cast Stainless
10. Review of Items Included in MOU between NRC and EPRI
11. Depth Sizing RMSE
12. Items of Mutual Interest / NRC Comments / Open Discussion
13. Adjourn

Wednesday, December 1, 2010, 9:00 a.m. – 12:00 p.m.

1. Continuation of November 30 Open Discussion
2. Review of Action Items
3. Public Comment (ANDE Presentation)
4. Location/Date of Next NRC/PDI Meeting
5. Adjourn

ENCLOSURE 2

REVIEW OF OPEN ITEMS
FROM JUNE 17 AND 18, 2010, MEETING

NRC Actions:

1. The NRC will send a letter to PDI addressing the RMSE issues and requesting access to PDI, piping DM weld, performance demonstration database..

   Status: Completed. The NRC Office of Nuclear Reactor Regulation (NRR) sent a letter dated November 8, 2010, (ML103120653), to PDI Chair.
   Completion Date: November 8, 2010.

2. PNNL will request from EPRI a mock WOL test, in order to obtain information on aspects of a standard test set with regards to how much information is provided to a candidate on the nature of flaws in the test.

   Status: Open. This item will be carried over to the next PDI-NRC meeting as an open item.
   Completion Date: will be discussed during the PDI November-December 2010 meeting.

3. The NRC will consider providing to PDI a copy of the DRAFT technical basis report on Appendix VIII.

   Status: Completed on July 7, 2010.

4. The NRC will discuss obtaining the following information from EPRI NDEC IC in January 2010:
   - EPRI report, “Ultrasonic Equivalency Testing of Weld Inlaid and Onlaid Components,” (1016655)
   - EPRI report, “Ultrasonic Equivalency Testing of Weld Inlaid Components,” (1016543)
   - “New Plant Guidelines”
   - “Guidelines for DM weld Inspection”
   - A list of funded industry NDE projects with brief summaries of each project

   Status: Competed.

ENCLOSURE 3

PDI Actions:

1. PDI will take actions to bring RPV remaining ligament ("s") measurement qualifications into ASME Code Case N-526. Completion date was the spring 2010 PDI meeting. Letter sent to the NRC on June 21, 2010.

   Status: Completed on July 15, 2010.

2. NDE Center project progress on austenitic single side examination technology. Completion date was the spring 2010 PDI meeting.

   Status: Completed.

3. Technical basis for the UT examination of optimized WOL. Completion date was the spring 2010 PDI meeting.

   Status: Closed by the completion of Action Item 1.

4. Relief request template for application of optimized WOL. Completion date was the spring 2010 PDI meeting.

   Status: Closed by Action Item 3.

5. NDEC project progress on UT of WOLs on centrifugally cast stainless steel components. Completion date was the spring 2010 PDI meeting.

   Status: Closed.

6. ASME Code progress on UT of Cast Stainless Steel (TG-CSS). Completion date was the spring 2010 PDI meeting.

   Status: Status report is provided in the November-December 2010 PDI meeting.
   Completion Date: Completed.

7. Presentation to the EPRI NDE Center (NDEC) Integration Committee (IC) a request for funding and action to review the current implementation of onlays, overlays and inlays for similarities with CRC configurations and champion appropriate changes at the ASME Code. Completion date was the spring 2010 meeting.

   Status: Presentation was given to BWRVIP, MRP, and PDI. If approved, a formal project will be presented to the EPRI NDEC IC in 2011.
   Completion Date: June 2011, if approved by other material issue programs.

8. Project to analyze the DM weld and austenitic-to-austenitic piping PDI database for RMSE performed from the inside diameter as a function of the flaw size and metal path; and will coordinate the project with NRC/PNNL participation.

   Status: Presentation was given during the NRC information meeting in May 2010. A presentation is scheduled during November 2010 meeting. PDI is working with industry on ASME Code case to address this issue.
   Completion Date: Spring 2011 meeting.

9. Draft ASME Code Case N-780 pertaining to alternative rules for equipment substitution when using PDI qualified techniques.

   Status: Completed.

10. EPRI representatives will adhere changes to ASME Code Case N-722 with regards to the note referencing Appendix VIII

    Status: Completed.

11. PDI will discuss ASME Code Case N-526 with steering committee to determine owner. PDI will get back with the NRC staff on results of discussions. PDI sent letter to the NRC dated June 28, 2010, (ML101960042).

    Status: Completed.

OPEN ITEMS – NEW ACTION ITEMS
FROM NOVEMBER-DECEMBER 2010 MEETING

NRC Actions:

1. PNNL will request from EPRI the WOL mockup to obtain information on aspects of a standard test set with regard to how much information is provided to the candidate on the nature of flaws in the test set.

   Status: Ongoing. This item will be carried over from prior to the June 2010 PDI-NRC meeting.
   Completion Date: Discussed during November-December 2010 meeting (targeting March 2011 for request).

2. The NRC staff will provide to PDI the ADAMS number for the PNNL reports presented during meeting in the PNNL presentation.

   Completion Date: December 31, 2010.

3. The NRC Office of Nuclear Reactor Regulation (NRR) sent a letter dated November 8, 2010, (ML103120653), to PDI Chair addressing the RMSE issues and requesting access to PDI, piping DM weld, performance demonstration database. The NRC letter requested response from PDI prior to the next semiannual management meeting in June 2011.

   Status: Ongoing. The NRC is waiting for PDI response prior to the next semiannual management meeting in June 2011.
   Completion Date: Prior to June 2011.

PDI Actions:

1. PDI will provide a copy of cable equivalency report to the NRC NDE and Piping Branch Chief.

   Completion Date: February 28, 2011.

2. PDI will bring forward the RMS ID depth sizing issue to the PDI steering committee and the EPRI NDEC IC. Recommend focused meeting with all relative parties to discuss this issue.

   Status: Ongoing

ENCLOSURE 4

LIST OF HANDOUTS AND PRESENTATIONS

ADAMS ACCESSION NO.: ML103400034

1. ASME Code Update
2. Ultrasonic Cable Equivalency
3. PDI Piping Program Update
4. PDI Reactor Pressure Vessel (RPV) Qualification Program Update
5. PDI Weld Overlay Program – Test Specimen Library Expansion
6. Update of Nondestructive Examination (NDE) Projects Funded by NRC at PNNL
7. Overview of Contents in MOU
8. ASME Non-Destructive Examination (ANDE) Personnel Certification Program
9. NRC Perspectives on Inside Diameter Pipe Examinations Depth Sizing Root Mean Square Error
10. NRC Request for Dissimilar Metal Weld Performance Demonstration Data on ID Depth Sizing Error
11. Action Item List – December 2010
12. Action Item List – June 2010
13. PDI/NRC Meeting Agenda November 30 and December 1, 2010