

JCN-N6783

Office of Nuclear Regulatory Research

Properties of CRDM Welds

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Period of Performance: May 3, 2010–July 31, 2012
Reporting Period: February 2012

OBJECTIVE

The objective of this project is to conduct nondestructive ultrasonic testing (UT), and an assessment of the leak path on Nozzle 63 from the North Anna Unit-2 reactor pressure vessel head. The assessment of the leak path will be conducted using instrumentation equivalent to or better than that used by industry. The results of the nondestructive examination will be compared to a previous assessment. A destructive analysis will be conducted to allow a visual assessment of the leak path. To the extent possible, the destructive analysis will be conducted such that materials from the nozzle and the J-groove weld that will be retained for later testing.

TECHNICAL PROGRESS

Task 1: Decontaminate the Nozzle and Prepare Laboratory for NDE

Task 1 is complete.

Task 2: Perform Ultrasonic Measurements of the Leakage Path

Task 2 is complete.

Task 3: Perform Destructive Evaluation of Leakage Path

Task 3 is complete and the final invoice from B&W was received and processed.

Task 4: Write NUREG/CR

Comments on the draft NUREG/CR were received from NRC and have been addressed. The report was resubmitted to NRC on February 28, 2012 for final review.

Task 5: Waste Disposal and Cleanup

All waste has been dispositioned and billed to the project and the task is complete.

Task 6: Project Management and Meetings

A revised statement of work and 189 spend plan has been submitted to facilitate PNNL supporting future activities (e.g., a March telecom) and addressing final comments on the NUREG/CR once received.

MEETINGS AND TRIPS

None.

PROBLEM AREAS

None.

SCHEDULE OF MILESTONES AND DELIVERABLES

Resubmit NUREG report	February 28
Receive and address NRC comments	by July 2012
Submit final NUREG/CR report	by July 30, 2012
Project closeout	July 31, 2012

PLANS FOR THE NEXT REPORTING PERIOD

Task 1: Decontaminate the Nozzle and Prepare Laboratory for NDE

Complete.

Task 2: Perform Ultrasonic Measurements of the Leakage Path

Complete.

Task 3: Perform Destructive Evaluation of Leakage Path Nozzle 63 Optional Work

Complete.

Task 4: Write NUREG/CR

Await final comments from NRC. Support NRC/industry teleconference.

Task 5: Waste Disposal and Cleanup

Complete.

Task 6: Project Management and Meetings

No meetings planned. Support NRC as necessary and await final comments on the report.

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VARIANCE EXPLANATION

None.

EQUIPMENT

None.

QUALITY ASSURANCE

The Quality Assurance requirements for this project are provided in the Laboratory's Standards Based Management System (SBMS). The SBMS allows for a graded QA approach to meet the requirements of individual projects. No specific Quality Assurance requirements have been specified by the NRC for this project.

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