



SVP-17-048

July 5, 2017

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Quad Cities Nuclear Power Station, Unit 1
Renewed Facility Operating License No. DPR-29
NRC Docket No. 50-254

Subject: Owner's Activity Report Submittal
Fifth 10-Year Interval 2017 Refueling Outage Activities

Reference: Letter from T. Tate (USNRC) to M. Pacilio (Exelon), "Quad Cities Nuclear Power Station, Units 1 and 2 – Safety Evaluation in Support of Request for Relief Associated with the Fifth 10 Year Interval Inservice Inspection Program," dated September 30, 2013.

This letter submits the Owner's Activity Report (i.e., Form OAR-1) and In-vessel Visual Inspection (IVVI) Report for the Quad Cities Nuclear Power Station (QCNPS) Unit 1 refueling outage (Q1R24) which began on March 27, 2017, and was completed on April 14, 2017. This is the first refueling outage conducted in the Second (2nd) Inspection Period of the fifth (5th) 10-year Interval Inservice Inspection (ISI) Program for QCNPS Unit 1. A copy of the Owner's Activity Report and IVVI Report are provided as attachments to this letter. Also, items that were not included in the Q2R22, Q1R23, or Q2R23 90-day Summary Report are provided as attachments as well.

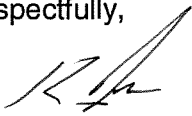
This Owner's Activity Report is submitted in accordance with American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Case N-532-4, "Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission," and the referenced NRC Safety Evaluation, which authorized use of Code Case N-532-4 at QCNPS (i.e., Relief Request I5R-09). Code Case N-532-4 requires an Owner's Activity Report Form OAR-1 to be prepared and certified upon completion of each refueling outage. In accordance with the conditions of Code Case N-532-4, this OAR-1 form is being submitted within ninety days of the completion of the refueling outage.

The IVVI results are provided to report completed vessel internal inspections and to document B-N-1 and B-N-2 relief request exam completion. Additionally, no welds were reclassified or changed status within the Intergranular Stress Corrosion Cracking (IGSCC) program this outage.

SVP-17-048
U.S. Nuclear Regulatory Commission
Page 2 of 2

Should you have any questions concerning this letter, please contact Mr. Wally Beck,
Regulatory Assurance Manager, at (309) 227-2800.

Respectfully,



Kenneth S. Ohr
Site Vice President
Quad Cities Nuclear Power Station

Attachments: 1. Owner's Activity Report, Form OAR-1
2. In-vessel Visual Inspection (IVVI) Report
3. Owner's Activity Report, Form OAR-1 (These are items that were not included
in Q2R22, Q1R23, or Q2R23 90-day Summary Report)

cc: Regional Administrator – Region III
NRC Senior Resident Inspector, Quad Cities Station

Attachment 1
Owner's Activity Report, Form OAR-1

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number Refueling Outage Q1R24 OAR-1

Plant Quad Cities Nuclear Power Station, 22710 206th Ave. North, Cordova, IL 61242

Unit No. 1 Commercial Service Date 02/18/1973 Refueling Outage Number Q1R24
(if applicable)

Current Inspection Interval 5th Inspection Interval (ISI), 2nd Inspection Interval (Containment)
(1st, 2nd, 3rd, 4th, other)

Current Inspection Period 2st Inspection Period (ISI), 3rd Inspection Period (Containment)
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the Inspection Plans 2007 Edition with 2008 Addenda (ISI),
2001 Edition with 2003 Addenda (Containment)

Date / Revision of Inspection Plans 3/19/16 / Revision 2

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans N/A

Code Cases used: N-532-4, N-613-1, N-649, N-789

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests, meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of Q1R24 conform to the requirements of Section XI (refueling outage number)

Signed [Signature], ISI Coordinator Date 06/15/2017
(Owner or Owner's designee, Title)

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Illinois and employed by The Hartford Steam Boiler Inspection and Insurance Company (HSB) of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty expressed or implied concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

[Signature] Commissions IL 2211; NB13175 A, N, I
(Inspector's Signature) National Board, State, Province, and Endorsements

Date 22 June 17

Attachment 1
 Owner's Activity Report, Form OAR-1
 Page 3 of 4

**TABLE 2
 ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

Code Class	Item Description	Description Of Work	Date Completed	Repair/ Replacement Plan Number
1	NEW CRD HOUSING BOLTING EXHIBITS DAMAGE (IR 03993859)	WO 01849793 - UNIT 1 CRDM REPLACEMENT	04/01/2017	16-067 16-079 17-015
2	ISI 1-0203-2C MSIV DAMAGED THREADS ON 2 STUDS/NUTS (IR 03995729)	WO 01082330 - CONTINGENCY AO 1-0203-2C OVERHAUL	04/09/2017	17-046
3	PSU Q1R24 1D RHRSW PUMP OUT OF ALIGNMENT (IR 03993611)	WO 04621864 - PUMPS TO FAR OUT OF ALIGNMENT TO MAKE ADJUSTMENTS (SPRING CAN SUPPORT 1001B-W-301.1 (DETAIL DWG M-994D-603) TO BE ADJUSTED UNDER WO 4624069 IN Q1R25)	04/07/2017	17-067
MC	DRYWELL HEAD BOLTING DAMAGED DURING DISASSEMBLY (IR 04017802)	WO 01849774 - RX DISASSEMBLY & REASSEMBLY	04/03/2017	16-070
3	VISUAL INTERNAL INSPECTION OF 1A HP RHRSW ELBOW (IR 02384605)	WO 01772450 – 1A RHRSW HIGH PRESSURE ELBOW EOC INSPECTION	10/26/2015	15-055
3	VISUAL INTERNAL INSPECTION OF 1B HP RHRSW ELBOW (IR 02492905)	WO 01772437 - 1B RHRSW HIGH PRESSURE ELBOW EOC INSPECTION	04/29/2015	15-037
3	VISUAL INTERNAL INSPECTION OF 1C HP RHRSW ELBOW (IR 02544407)	WO 01772366 - 1C RHRSW HIGH PRESSURE ELBOW EOC INSPECTION	08/20/2015	15-058
3	VISUAL INTERNAL INSPECTION OF 1D RHRSW HP ELBOW (IR 02537964)	WO 01772394 - 1D RHRSW HIGH PRESSURE ELBOW EOC INSPECTION	08/04/2015	15-081
3	1C RHRSW SUCTION AND DISCHARGE VALVES NOT ISOLATING (IR 01694057)	WO 01763590 - 1C RHRSW SUCTION VALVE NOT ISOLATING: 1-1001-1C	04/13/2017	16-031
3	NEED WO TO REPLACE N-789 REPAIRED AREA (IR 02548993) & IEMA ID WATER ON FLOOR BAY 12/13 U1 RX BLDG BSMT (IR 02649481)	WO 01858165 - REPLACE REPAIRED SECTION OF 1-3960-4" CODE CASE N-789	04/14/2017 04/13/2017	16-069 16-074
3	RHRSW VALVES FAIL TO ISOLATE SYSTEM (IR 00300886)	WO 00784562 - RHRSW VALVES FAIL TO ISOLATE SYSTEM	04/17/2017	17-041
3	WATER ON FLOOR BAY 14 U1 RX BLDG BSMT (IR 02542834)	WO 01854438 - WATER ON FLOOR BAY 14 U1 RX BLDG BSMT	08/27/2015	15-098

TABLE 2 (cont'd)

ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

Code Class	Item Description	Description Of Work	Date Completed	Repair/ Replacement Plan Number
2	WRONG LINE WAS CUT DURING PERFORMANCE OF WO 1341322-01 (IR 01120271)	WO 01877257 - U1 HPCI CONDENSATE PUMP MOTOR OVERLOAD	11/20/2015	15-145
3	UNIT 1A RHRSW VAULT COOLER UT RESULTS (IR 01541334)	WO 01661073 - REPAIR 1A RHRSW VAULT COOLER DUE TO UT RESULTS	01/27/2016	15-146
3	IEMA ID WATER ON FLOOR BAY 12/13 U1 RX BLDG BSMT (IR 02649481)	WO 01912871 - IEMA ID WATER ON FLOOR BAY 12/13 U1 RX BLDG BSMT	04/25/2016	16-024
3	1D RHRSW ROOM COOLER RO AND FE UT MEASUREMENTS (IR 02416825)	WO 01788407 - 1D RHRSW ROOM COOLER: REPLACE RESTRICTING ORIFICE PIPING	11/16/2016	16-071
3	UNIT 1D RHRSW CUBICLE COOLER UT RESULTS (IR 01576837)	WO 01684268 - REPLACE HEADERS ON 1D RHRSW CUBICLE COOLER DUE TO UT RESULT	11/16/2016	16-072
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-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Attachment 2
In-Vessel Visual Inspection (IVVI) Report
Page 1 of 2

The ASME Section XI inspections credited during Q1R24 IVVI activities include the once-per-period B-N-1 inspection of the reactor vessel interior and B-N-2 inspections of reactor vessel interior attachments. Credit is being taken for the BWRVIP examinations in place of the B-N-1 and B-N-2 examinations in accordance with Quad Cities Station Relief Request I5R-06, "Request for Relief for the Use of BWRVIP Guidelines in Lieu of Specific ASME Code Requirements on Reactor Vessel Internals and Components Inspection In Accordance with 10CFR50.55a(a)(3)(i) Alternative Provides Acceptable Level of Quality and Safety".

To implement the requirements of the Boiling Water Reactor Vessel Internals Program (BWRVIP), GE-Hitachi (GEH) was contracted to perform the In-Vessel Visual Inspections (IVVI). The following B-N-1 and B-N-2 components and assemblies were visually examined:

- Two (2) Core Shroud welded support structure/attachment welds H8 and H9
- Five (5) Jet Pump Attachment welds RB-1
- Eight (8) Feedwater Sparger Attachment welds
- Reactor Pressure Vessel (RPV) interior surfaces in areas near BWRVIP exams in accordance with Relief Request I5R-06.

Multiple indications (gouges and rub marks) were identified on all four of the Steam Dryer wall support lugs. These indications were previously observed in Q1R23. A comparison of the inspection results from Q1R23 to Q1R24 found no significant change to the previous indications and no new indications were identified. These indications are documented in IR 3992081 and evaluated for continued service under EC 618731. Quad Cities will continue to monitor these conditions in accordance with the Reactor Internals Program.

To implement the requirements of the Boiling Water Reactor Vessel Internals Program (BWRVIP), GE-Hitachi (GEH) was contacted to perform the In-Vessel Visual Inspections (IVVI). The following components and assemblies were examined:

- Sixty-nine (69) welds and components on jet pump assemblies via visual exam in accordance with the BWRVIP-41 Rev. 3, "BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines."
- One hundred and nineteen (119) welds on jet pump assemblies via volumetric ultrasonic testing (UT) exam in accordance with the BWRVIP-41 Rev. 3, "BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines."
- One (1) core spray piping repair clamp via visual exam in accordance with the BWRVIP-18 Revision 2 (-A), "BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines."
- Four (4) core shroud repair mechanical hardware locations (i.e. Shroud tie rods) in accordance with BWRVIP-76 Revision 1, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines."

Attachment 2
In-Vessel Visual Inspection (IVVI) Report
Page 2 of 2

- Four (4) core plate repair mechanical hardware locations (i.e. core plate wedges) in accordance with BWRVIP-25, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines."
- Top guide rim weld at twelve (12) unflawed cell locations in accordance with BWRVIP-26-A, "BWR Core Plate Inspection and Flaw Evaluation Guidelines."
- Nine (9) top guide grid cells via visual exam in accordance with the BWRVIP-183, "Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines."
- Four (4) top guide aligner assemblies in accordance with BWRVIP-48-A, "Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines".
- Steam dryer examinations of the two (2) tee to cap doubler welds, general visual examination top banks and sides, and VT examination of seventy two (72) welds. Dryer inspections were performed in accordance with BWRVIP-139-A, "Steam Dryer Inspection and Flaw Evaluation Guidelines".

In addition to the BWRVIP inspection guidance, the following augmented visual examinations were also performed as part of the Q1R24 IVVI activities:

- Five (5) Nuclear Instrument Dry Tubes for cracking in accordance with GEH Services Information Letter (SIL) 409-Rev 5
- Ten (10) Nuclear Instrument Dry Tubes for upper plunger engagement in accordance with GEH SIL 409-Rev 5 and per programmatic requirements.
- Re-inspection of eight (8) end bracket and pin locations on four (4) feedwater spargers per Industry OPEX and ongoing wear
- Re-inspection of mechanical damage at four (4) steam dryer support lug locations per programmatic requirements.
- Twenty-four (24) steam separator support ring gussets and fourteen (14) steam separator peripheral standpipes including tie bar welds per programmatic requirements.

