



Dresden Nuclear Power Station
6500 North Dresden Road
Morris, IL 60450

February 9, 2017

SVPLTR: #17-0009

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

Dresden Nuclear Power Station, Unit 3
Facility Operating License No. DPR-25
NRC Docket No. 50-249

Subject: Owner's Activity Report Submittal;
Fifth 10-Year Interval 2016 Refueling Outage Activities

This letter submits the Owner's Activity Report (i.e., Form OAR-1) for repair/replacement activities performed during the previous cycle D3C24 and In-vessel Visual Inspection (IVVI) Report for the Dresden Nuclear Power Station (DNPS) Unit 3 refueling outage (D3R24) which began on October 31, 2016, and was completed on November 16, 2016. This is the first refueling outage conducted in the second inspection period of the fifth 10-year inservice inspection interval for DNPS Unit 3. A copy of the Owner's Activity Report and IVVI Report are provided as attachments to this letter.

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 USNRC Safety Evaluation In Support of Request for Relief Associated With the Fifth 10-Year Inservice Inspection Interval Program dated September 30, 2013. 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 vessel internal inspections and to support B-N-1 and B-N-2 relief request exam completion. Should you have any questions concerning this letter, please contact Mr. Bruce Franzen, Regulatory Assurance Manager at (815) 416-2800.

Respectfully,

A handwritten signature in black ink, appearing to read "Peter J. Karaba".

Peter J. Karaba
Site Vice President
Dresden Nuclear Power Station

Enclosures

AD4T
NRR

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number Refueling Outage D3R24 OAR-1

Plant Dresden Nuclear Power Station, 6500 N. Dresden Road, Morris, IL 60450

Unit No. 3 Commercial Service Date 11/16/1971 Refueling Outage Number D3R24
(if applicable)

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

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

Edition and Addenda of Section XI applicable to the Inspection Plans 2007 Edition with 2008 Addenda

Date / Revision of Inspection Plans 10/31/16/Revision 3

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

Code Cases used: N-649

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 D3R24 conform to the requirements of Section XI (refueling outage number)

Signed John N. Kish, ISI Coordinator
(Owner or Owner's designee, Title)

Date 2/8/17

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 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]
(Inspector's Signature)

Commissions IL 1546; NB10972 A, N, I
National Board, State, Province, and Endorsements

Date 2/8/17

TABLE 1
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED
EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
None	None	None

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

Code Class	Item Description	Description Of Work	Date Completed	Repair/ Replacement Plan Number
3	Pinhole Leak Identified on Unit 3 CCSW Division 1 Piping	Drilled out flaw and encapsulated leak.	5/8/15	RRP 3-15-012
3	Leak Identified Coming from Unit 3 Division 1 CCSW Discharge Piping	Drilled out flaw and installed branch connection.	9/19/15	RRP 3-15-015
2/3	Indications on 3A LPCI Heat Exchanger Support	Ground out indications and welded up between heat exchanger and support plate.	11/8/16	RRP 3-16-040
2/3	Indications on 3B LPCI Heat Exchanger Support	Ground out indications and welded up between heat exchanger and support plate.	11/16/16	RRP 3-16-041
3	Repair Pit on CCSW Pipe	Removed pit and weld build back up.	11/10/16	RRP 3-16-060

Dresden Unit 3 Reactor Internals Inspection Report Refueling Outage D3R24

The ASME Section XI inspections credited during D3R24 includes 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 Boiling Water Reactor Vessel and Internals Project (BWRVIP) examinations in place of the B-N-1 and B-N-2 examinations as allowed in Dresden Station Relief Request I5R-07, "Request for Relief for the Use of BWRVIP Guidelines in lieu of Specific ASME Code Requirements on Reactor Vessel Internals and Component Inspection In Accordance with 10CFR50.55a(a)(3)(i) Alternative Provides Acceptable Level of Quality and Safety".

To implement the requirements of the BWRVIP, General Electric – Hitachi (GEH) was contacted to perform the inspection activities. The following components and assemblies were examined as directed by BWRVIP documents:

- Seven core spray piping welds, two core spray piping brackets, bolting from two additional piping brackets and one core spray sparger bracket in accordance with the BWRVIP-18 Revision 2-A, "BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines".
- Two components on the shroud repair hardware and 28 shroud vertical welds in accordance with BWRVIP-76 Revision 1, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines".
- Attachment welds for all four steam dryer support lugs and five jet pump riser brace attachment welds in accordance with BWRVIP-48-A, "Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines".
- The top guide rim weld and all four aligner pin/block assemblies in accordance with BWRVIP-26-A, "BWR Top Guide Inspection and Flaw Evaluation Guidelines".

Additionally, one of each of the following cast austenitic stainless steel components were inspected: a control rod guide tube base and a fuel support piece. These exams were performed as augmented ISI as required by a license renewal commitment.

The above BWRVIP examinations resulted in no indications identified in the reactor interior surface as defined by B-N-1 or the reactor interior attachments as defined by B-N-2.

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 1

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
2-15-052	01585059-01	2	2-2499-28B	Replace valve bonnet bolting if required as a result of internal inspection.	No	
2-16-001	01534639-01	2	2-2301-39	Replace bolting if required during maintenance on valve.	No	
2-16-004	01896403-01	1	SPARE MSIV DISC	Perform NDE on MSIV disc machined per EC 399980.	No	
2-16-005	01896404-01	1	SPARE MSIV DISC	Perform NDE on MSIV disc machined per EC 399980.	No	
2-16-006	01508126-01	1	SPARE FDWTR CHK	Perform repairs to spare feedwater checkvalve assembly S/N D2467/D2464 combo disc/seat.	No	
2-16-014	PO 538779-01	1	S/N 223	Perform repair to Target Rock S/N 223 per CEAR 15-300 and traveller 15-45.	No	
2-16-018	PO 568495-01	1	S/N DA39300	Perform repairs to ERV S/N DA39300 per NWS CEAR 16-192 and 16-129.	No	
2-16-020	PO 538779-01	1	TRGT RCK S/N223	Perform repairs to Target Rock Base S/N 223 per NWS Traveller 15-45.	No	
2-16-022	1786761-01	1	FDWTR CHK	Rebuild spare feedwater check disc that wasw removed under WO 1404169-01.	No	
3-12-061	01536607-01	3	3-5700-30B	Replace standpipes on CCSW room cooler 3-5700-30B.	No	
3-14-025	01612043-01	3	3-5746-A	Replace 3A LPCI room cooler coils if required. Piping unions and cooler bolting may be replaced as necessary.	No	
3-14-056	01391213-01	1	3-220-62A	Replace feedwater checkvalve disc/seat assembly with refurbished spare.	No	
3-14-071	01206037-01	2	3-1402-28A	Replace valve and, if required, bolting	No	
3-15-001	01428388-02	2	3-2301-76	Replace valve if required.	No	
3-15-002	01788368-04	2	3-1599-144	Install new four inch line 3-1584-4"-DX and new valve 3-1599-144 on LPCI line 3-1509-16"-LX for FLEX mod, EC 394206.	No	

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 2

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
3-15-004	01738369-06	2	3-1599-143	Install new four inch line 3-1589-4"-DX and new valve 3-1599-143 on LPCI line 3-1508-18"-DX for FLEX mod, EC 394206.	No	
3-15-006	01738369-12	2	3-1599-146	Install new four inch line 3-1586-4"-DX and new valve 3-1599-146 on LPCI line 3-1504-16"-DX for FLEX mod, EC 401240.	No	
3-15-007	01738369-14	2	3-1599-141	Install new four inch line 3-1590-4"-DX and new valve 3-1599-141 on LPCI line 3-1503-18"-DX for FLEX mod, EC 401239.	No	
3-15-010	01738369-02	2	3-1580-6"-LX	Install new six inch line 3-1580-6"-LX and new valve 3-1599-142 on LPCI line 3-1507B-14"-LX for FLEX mod, EC 401236.	No	
3-15-011	01738369-10	2	3-1582-6"-LX	Install new six inch line 3-1582-6"-LX and new valve 3-1599-140 on LPCI line 3-1502B-14"-LX for FLEX mod, EC 401235.	No	
3-15-012	01829523-01	3	3-1512-24"-O	Repair pinhole leak on Unit 3 CCSW suction line 3-1512-24"-O in Cribhouse.	Yes	
3-15-013	01817203-05	2	3-1589-4"-DX	Cut line 3-1589-4"-DX and install slip-on flanges per EC 401870.	No	
3-15-015	01861885-01	3	3-1514-16"-O	Replace Unit 3 line 3-1514-16"-O. Line developed hole during pump run.	Yes	
3-15-019	01787609-23	1	3-305-14-23	Replace Unit 3 stuck control rod drive D-11.	No	
3-15-020	01820258-80	1	3-0201	Repair cladding on reactor head flange	No	
3-15-021	01711473-01	3	3-3930-501	Replace DGCW check valve if required.	No	
3-15-022	01533149-01	2	2-2301-51	Replace check valve and bolting if required based on inspection results.	No	
3-15-023	01533150-01	2	2-2301-39	Replace valve bolting if required during maintenance.	No	
3-16-001	01376368-01	3	3-1501-1B	Replace 3B CCSW pump discharge check valve and bolting if required.	No	

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 3

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
3-16-002	01478031-01	2	3-1101-43B	Remove seal weld to permit dis-assembly and internal check valve inspection. New bonnet may be installed if damaged during seal weld removal.	No	
3-16-003	01807087-01	1	3-203-3A	Replace Unit 3 Target Rock valve. Repair inlet flange if required and replace inlet bolting if required.	No	
3-16-004	01606234-01	2/3	3-1503-A	Replace 3A LPCI heat exchanger cover bolting if lost or damaged during inspection or cleaning. Heat exchanger tubing will be replaced based on Eddy Current testing results.	No	
3-16-005	01585060-01	MC	3-2499-28A	Replace valve bonnet bolting if required.	No	
3-16-006	01598042-01	1	3-202-A	Replace seal flange on 3A Recirc Pump.	No	
3-16-007	00771000-01	2	3-220-59	Replace feedwater check valve dis/seat assembly with refurbished spare.	No	
3-16-008	01805351-01	1	3-220-58B	Replace seat/disc assembly on feedwater check valve.	No	
3-16-011	01401491-01	2	3-1501-13B	Replace relief valve and flange bolting if required.	No	
3-16-012	01406222-01	2	3-1501-13A	Replace relief valve and flange bolting if required.	No	
3-16-013	01201116-01	MC	3-4399-915	Replace relief valve and bolting if required.	No	
3-16-014	01838183-01	2	3-2301-45	Replace HPCI turbine exhaust check valve and bolting if required.	No	
3-16-015	01790012-01	2	3-1105-B	Replace SBLC relief valve and bolting if required.	No	
3-16-016	01446934-03	2	3-1501-65D	Replace check valve if required based on inspection results from Task 01.	No	
3-16-018	1800527-14	3	3-1302	Repair splash bracket supports if required.	No	

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 4

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
3-16-019	997303-01	MC	3-2499-4B	PM replacement of valve disc. Includes tack welds.	No	
3-16-022	1806475-05	1	CRDM'S	Routine refuel outage replacement of control rod drive mechanism's and bolting. Replace 20 CRDM's with Tasks 5 thru 24.	No	
3-16-023	1801578-17	3	3-3019D-54	Replace snubber.	No	
3-16-024	1617486-28	1	SPARE MSIV DISC	Perform NDE on MSIV disc modified per EC 399980.	No	
3-16-026	1387032-01	2	3-1402-28B	Rebuild Core Spray relief valve removed in WO 561080.	No	
3-16-027	1890551-04	2	WEST BANK HCU'S	Perform PM's on Unit 3 West Bank HCU's. 138 check valve ball may be replaced as applicable based on as-found conditions. Accumulator may be replaced as required. Applies to Tasks 02, 04, 08, 09, 10, 12 and 25.	No	
3-16-028	1890551-05	1	EAST BANK HCU'S	Perform PM's on Unit 3 East Bank HCU's. 138 check valve ball may be replaced as applicable based on as-found conditions. Accumulator may be replaced as required. Applies to Tasks 5, 6, 7, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 31 and 32.	No	
3-16-029	1607330-01	1	3-203-4C	Replace Unit 3 4C SRV. Inlet bolting may be replaced and inlet flange repaired as required.	No	
3-16-030	1440977-05	2	3-1402-8A	Machine valve body. Machine, weld build up disc. Tack weld disc in place.	No	
3-16-031	1606844-01	1	3-203-3E	Replace 3E ERV. Replace inlet bolting. Repair inlet flange if required.	No	
3-16-032	1606161-01	1	3-203-3C	Replace Unit 3 ERV 3C and inlet bolting. Inlet flange may be repaired if required.	No	
3-16-034	1848795-01	3	3-1512-24"	Replace degeraded section of Unit 3 CCSW piping in Cribhouse.	No	

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 5

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
3-16-035	1848795-24	3	3-1501-36B	Replace bonnet bolting on 3-1501-36B valve if required.	No	
3-16-036	1402307-01	1	3-203-4A	Replace Unit 3 SRV 4A. Includes bolting replacement and inlet flange repair if required in Task 5.	No	
3-16-037	1811136-01	MC	HARDENED VENT	Install new hardened vent piping on Unit 3. EC 401069.	No	
3-16-038	1607328-01	1	3-203-4B	Replace Unit 3 SRV 4B. Includes bolting replacement and inlet flange repair if required in Task 6.	No	
3-16-039	1915321-01	3	3-1501-2A	Replace bonnet bolting and valve disc if required.	No	
3-16-040	1882849-02	2	3-1503-A	Repair area's identified in NDE report performed in Task 1. Also repair up to an additional 20" per side of existing weld based on NDE report results.	Yes	
3-16-041	1882850-02	2	3-1503-B	Repair area's identified in NDE report performed in Task 1. Also repair up to an additional 20" per side of existing weld based on NDE report results.	Yes	
3-16-042	1388392-01	2	3-1105-B	Rebuild SBLC relief valve removed under WO 998429-01.	No	
3-16-043	1400131-01	2	3-1201-158	Replace valve seat/disc assembly if required.	No	
3-16-044	1799782-01	MC	3-2001-105	Replace valve diaphragm and perform PM's.	No	
3-16-045	1799790-01	MC	3-2001-106	Replace valve diaphragm and perform PM's.	No	
3-16-046	1799792-01	MC	3-2001-6	Replace valve diaphragm and perform PM's.	No	
3-16-047	1799793-01	MC	3-2001-5	Replace valve diaphragm and perform PM's.	No	
3-16-049	1811136-27	MC	M-1194A-2-H45	Install new support on Class MC piping for hardened vent mod per EC 401069.	No	

OAR-1 Summary

Date Submitted: 2/14/2017

Page: 6

Repair/ Replacement Plan No.	Work Request Number	Code Class	EPN Number	Description of Repair/Replacement	OAR-1	
					Reportable	Dbase Record
3-16-050	1848792-01	3	3-1514-16"-D	Replace degraded section of CCSW pipe 3-1514-16"-D off of Unit 3 Torus catwalk.	No	
3-16-051	1848792-10	3	3-1514-16"-D	Replace existing degraded section of CCSW pipe on Unit 3. Replace pipe from 3-1501-4A valve upstream to elbow inside torus basement. Includes existing pipe repairs at cut lines.	No	
3-16-052	1786694-01	3	3-3933-503	Replace 3-3933-503 valve. Includes installing slip on flange as a contingency in Task 05.	No	
3-16-053	1955768-01	1	3-220-58A	Reweld nut back to valve disc using a qualified welder.	No	
3-16-054	1954128-01	3	3-1514-16"-D	Replace section of CCSW pipe 3-1514-16"-D in Unit 3 Turbine Building.	No	
3-16-055	1954128-06	3	M-1200D-106	Remove existing and re-attach support lugs to new pipe for Unit 3 CCSW support M-1200D-106.	No	
3-16-056	1617486-30	1	3-0203-1D	Perform in body macining on MSIV 1D for new liner fit up.	No	
3-16-057	1915321-06	3	3-1501-2A	Repair disc guide rails in valve body.	No	
3-16-058	1965266-01	2	X-317	Replace bolting at Unit 3 HPCI exhaust spectacle flange if required.	No	
3-16-059	1964477-01	1	3-3001B-45	Repair snubber spherical bearing.	No	
3-16-060	01848795-08	3	3-1512-24"	Repair pit found on CCSW pipe located in the cribhouse during a non-ISI inspection. Pit shall be ground out and weld repaired.	Yes	
3-16-061	1803317-19	2	M-1199D-61	Replace strut bolting on ISO support m-1199D-61.	No	