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February 8, 2012

SVPLTR #12-0006

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

> Dresden Nuclear Power Station, Unit 2 Facility Operating License No. DPR-19 NRC Docket No. 50-237

Subject: Owner's Activity Report Submittal Fourth 10-Year Interval 2011 Refueling Outage Activities

This letter submits the Owner's Activity Report (i.e., Form OAR-1) and Invessel Visual Inspection (IVVI) Report for the Dresden Nuclear Power Station (DNPS) Unit 2 refueling outage (D2R22) which began on October 17, 2011, and was completed on November 11, 2011. This is the first refueling outage conducted in the third inspection period of the fourth 10-year inservice inspection interval for DNPS Unit 2. 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 Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 15. 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.

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February 8, 2012 U. S. Nuclear Regulatory Commission Page 2

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. Dennis Leggett, Regulatory Assurance Manager, at (815) 416-2800.

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Respectfully,

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David M. Czufin Site Vice President Dresden Nuclear Power Station

Attachments: Owner's Activity Report, Form OAR-1 Invessel Visual Inspection Report

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

## FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number	Refueling Outage D2R22 OAR-1								
Plant	Dresden Nuclear Power Station, 6500 N. Dresden Road, Morris, IL 60450								
Unit No.	2	Commercial Service Da	te(	06/09/1970	Refueling Outage Number	D2R22			
Current Inspection	n Interval	4 <sup>th</sup> Inspection Interval							
Current Inspectio	on Period		(1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> , other) 3 <sup>rd</sup> Inspection Period						
Edition and Adde	enda of Section	XI applicable to the Insp	ection Plans	(1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>r</sup>	(1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> ) 1995 Edition with 1996 Addenda				
Date / Revision of Inspection Plans 1/20/2010/Revision 7									
Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans									
Code Cases used: N-416-3, N-649, N-504-3, N-652									
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 <u>D2R22</u> conform to the requirements of Section XI Signed <u>JOHN NKick</u> , ISI Coordinator (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 HSBCT         of       Hartford									
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									
	<u></u>		Commissions		IL 1546				
	(Inspector	's Signature)		National Boar	d, State, Province, and Endorsements				
Date	2/-	3/12							

 TABLE 1

 ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED

 EVALUATION FOR CONTINUED SERVICE

Item Description	Evaluation Description		
Unacceptable Flaw Indication Found in Upper Shell to Flange Circumferential Weld/2/1/RPV SHELL/2-SC4-FLG	Dresden Unit 2 RPV Flaw Evaluation Handbook - GENE-B11- 00843-00-01, Rev 1; October 2001		
	Item Description Inacceptable Flaw Indication Found in Upper Shell to Flange Circumferential Weld/2/1/RPV SHELL/2-SC4-FLG		

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	Thruwall Leak On CREVS Pipe	Replaced Leaking Section of Pipe	4/5/11	RRP 2-11-024
3	Pinhole Leak on CREVS Pipe Weld	Replaced Leaking Weld	10/5/11	RRP 2-11-072
1	Flaw at U2 RR Weld PS2-TEE/202-4B	Overlayed Weld	11/4/11	RRP 2-11-075
1	Flaw at U2 RR Weld PS2/201-1	Overlayed Weld	11/4/11	RRP 2-11-076
1	Flaw at U2 RR Weld PD1A-D14	Overlayed Weld	11/4/11	RRP 2-11-077
1	Indication On Valve 2-202-4B	Removed Indication and Welded Over	11/4/11	RRP 2-11-094
1	Loose Bolting On U2 RR Support M-1157D-259	Replaced Bolting, Double Nutted and Staked Threads	11/6/11	RRP 2-11-087
1	Loose Bolting On U2 RR Support M-1157D-261	Tightened Bolting, Double Nutted and Staked Threads	11/5/11	RRP 2-11-092
2	Indication On Unit 2 SBLC Tank Weld	Removed Indication and Re-welded Seam	11/5/11	RRP 2-11-096
2	Indications On 2B LPCI Ht Exchanger Support M- 1164D-578	Ground Out Indications and Re-welded Support	11/5/11	RRP 2-11-097
2	Indications On 2A LPCI Ht Exchanger Support M- 1164D-580	Ground Out Indications and Re-welded Support	11/9/11	RRP 2-11-102
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## Dresden Unit 2 Reactor Internals Inspection Report Refueling Outage D2R22

The ASME Section XI inspections credited during D2R22 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 these examinations in accordance with Relief Request, "Alternative Requirements to ASME Section XI, B-N-1 and B-N-2 using BWRVIP Guidelines, Fleet Relief," submitted April 19, 2007, as approved in the Safety Evaluation dated April 30, 2008.

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

- Guide rod bracket and surveillance capsule bracket attachment welds in accordance with ASME Section XI, B-N-2.
- 72 welds and components on jet pump assemblies in accordance with the BWRVIP-41, "BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines".
- Ten core spray piping welds and two core spray piping brackets in accordance with the BWRVIP-18-A, "BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines". Also inspected the Core Spray lower sectional piping and hardware that was installed in D2R21.
- 16 shroud vertical welds in accordance with BWRVIP-76, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines".
- Shroud support welds H8 and H9 in accordance with BWRVIP-38, "BWR Shroud Support Inspection and Flaw Evaluation Guidelines".
- Shroud Support Plate Access Hole Covers in accordance with BWRVIP-180, "Access Hole Cover Inspection and Flaw Evaluation Guidelines".
- Attachment welds for two core spray piping brackets and two dryer wall support lugs in accordance with BWRVIP-48-A, "Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines".
- Dryer examinations were performed for the second consecutive outage (new dryer installed in D2R20). Dryer inspections were performed in accordance with BWRVIP-139-A, "Steam Dryer Inspection and Flaw Evaluation Guidelines".
- Top guide grid beams, aligner pins and the rim weld in accordance with BWRVIP-26-A, "BWR Top Guide Inspection and Flaw Evaluation Guidelines" and BWRVIP-183, "Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines". (continued)

## Dresden Unit 2 Reactor Internals Inspection Report Refueling Outage D2R22

In addition to the BWRVIP inspection guidance, the following augmented examinations were also performed as part of the D2R22 IVVI activities:

- Inspected bolting on seven jet pump swing gates including the swing gate installed in D2R21.
- Inspected feedwater spargers in accordance with NUREG 0619 guidance and the feedwater spargers end bracket surfaces for evidence of wear.
- Six SRM/IRM dry tubes were inspected in accordance with SIL 409 guidance.
- Inspected a steam separator guide rod top cone due to previous contact with the steam dryer.
- Selected Cast Austenitic Stainless Steel components were inspected in accordance with license renewal commitments.

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

The D2R22 ASME Section XI inspections inside the reactor vessel also included Category B-A volumetric examinations of the reactor vessel shell longitudinal welds and the shell to flange weld. One indication was identified that did not meet the criteria for IWB-3510 acceptance; however, an evaluation has concluded it is well within the limit prescribed in IWB-3600.

D2R22 OAR-1 Page 5 of 5