UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 1, 2013

Mr. Michael J. Pacilio
Senior Vice President, Exelon Generation Co., LLC
President and Chief Nuclear Officer, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3
NRC INTEGRATED INSPECTION REPORT 05000237/2013004;
05000249/2013004

Dear Mr. Pacilio:

On September 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Dresden Nuclear Power Station, Units 2 and 3. The enclosed report documents the results of this inspection, which were discussed on October 10, 2013, with Mr. S. Marik and other members of your staff.

Based on the results of this inspection, one NRC-identified finding of very low safety significance was identified. The finding involved a violation of NRC requirements. Additionally, a licensee- identified violation is listed in Section 4OA7 of this report. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as non-cited violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy

If you contest the subject or severity of the NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Dresden Nuclear Power Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS)

component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Patricia J. Pelke, Acting Chief
Branch 6
Division of Reactor Projects

Docket Nos. 50-237; 50-249
License Nos. DPR-19; DPR-25

Enclosure: Inspection Report 05000237/2013004; 05000249/2013004
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-237; 50-249
License Nos:	DPR-19; DPR-25
Report No:	05000237/2013004; 05000249/2013004
Licensee:	Exelon Generation Company, LLC
Facility:	Dresden Nuclear Power Station, Units 2 and 3
Location:	Morris, IL
Dates:	July 1 through September 30, 2013
Inspectors:	G. Roach, Senior Resident Inspector D. Meléndez-Colón, Resident Inspector D. Lords, Resident Inspector, Clinton Power Station T. Go, Health Physicist V. Meghani, Reactor Inspector A. Shaikh, Reactor Engineer E. Sanchez-Santiago, Reactor Inspector R. Elliott, Reactor Engineer
Approved by:	P. Pelke, Acting Chief Projects Branch 6 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000237/2013004, 05000249/2013004; 07/01/2013 – 09/30/2013; Dresden Nuclear Power Station, Units 2 & 3; Operability Determinations and Functional Assessments.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors. The finding was considered a non-cited violation (NCV) of NRC regulations. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" dated June 2, 2011. Cross-cutting aspects are determined using Inspection Manual Chapter (IMC) 0310, "Components Within the Cross Cutting Areas" dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated January 28, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process" Revision 4, dated December 2006.

NRC-Identified Findings

Cornerstone: Mitigating Systems

- Severity Level IV. A Severity Level IV NCV of 10 CFR 50.71(e), "Periodic Update of the Final Safety Analysis Report" (USFAR) and an accompanying Green finding were identified by the inspectors for the licensee's failure to update the Updated Final Safety Analysis Report (UFSAR) for a design modification performed on the Unit 3 reactor water cleanup (RWCU) system. Specifically, the licensee did not update Dresden UFSAR Section 5.4.8, "Reactor Water Cleanup System," to reflect changes made during a design modification installed on Unit 3 in 1997. The design changes included reducing the pipe dimension of RWCU piping outside of the primary containment and eliminating a string of regenerative and non-regenerative heat exchangers. The licensee also identified several high energy line break (HELB) calculations which did not include the design modification when determining the impact on environmentally qualified components affected by a failure of the RWCU system piping outside of the primary containment structure. Corrective actions included submitting a UFSAR change request to include the appropriate operating characteristics and specifications under the present design. In addition, the licensee reviewed all affected calculations to ensure no non-conservative outcomes resulted based on the design modifications installed.

  This finding was determined to be more than minor using IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012 because, if left uncorrected, the performance deficiency could have led to a more significant safety concern. Specifically, failure to update the UFSAR with the actual RWCU system configuration prevented the inspectors from readily concluding that the design change would not require additional calculational analyses for HELB. The inspectors completed a Phase 1 significance determination of this issue using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," dated July 1, 2012 and IMC 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated July 1, 2012. The inspectors answered NO to all questions in Exhibit 2, Section A, "Mitigating SSCs and Functionality," therefore the finding screened as Green (very low safety significance). In accordance with

Section 6.1.d.3 of the NRC Enforcement Policy, this violation is categorized as Severity Level IV because the information was not used to make an unacceptable change to the facility or procedures since the design changes did not result in a reduction of the previous margin to the 10 CFR 100 guidelines nor did they challenge the environmental quality rating of safety related components in the vicinity of the RWCU system during a HELB event outside of containment. The inspectors determined that this finding did not reflect present performance because it is a legacy issue with changes made to the facility more than 16 years previously; therefore, there was no cross cutting aspect associated with this finding. (Section 1R15)

B. Licensee-Identified Violations

A violation of very low safety significance that was identified by the licensee has been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program (CAP). This violation and CAP tracking numbers are listed in Section 4OA7, of this report.

REPORT DETAILS

Summary of Plant Status

Unit 2

On August 10, 2013, operators reduced power to approximately 84 percent for a planned control rod pattern adjustment. Operators restored power to 100 percent on August 11, 2013.

On August 28, 2013, operators reduced power to approximately 98 percent due to an unplanned trip of the 2B circulating water pump. On August 29, 2013, power was further reduced due to condenser limitations with the combination of warm intake temperatures and two circulating water pump operation. Power was reduced to as low as 89 percent during this period of warm weather and two pump operation. On September 1, 2013, operators restored power to 100 percent.

With the exception of planned short duration reduction in power to support control rod pattern adjustments, Unit 2 was maintained at or near full power for the remainder of the inspection period.

Unit 3

On August 31, 2013, operators reduced power to approximately 66 percent for planned turbine valve testing and control rod pattern adjustment. Operators restored power to 100 percent on September 1, 2013.

With the exception of short periods for routine maintenance and surveillances, Unit 3 operated at full power for the remainder of the reporting period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 External Flooding

a. Inspection Scope

The inspectors observed the licensee's reasonable simulation of the deployment of a segment of the Aqua Dam on July 18, 2013. Members of the licensee's maintenance staff demonstrated the ability to position, fill, and overlap adjacent sections of the Aqua Dam with oversight and guidance provided by the vendor. In addition, the inspectors reviewed the licensee's lessons learned document and the licensee's extrapolated timeline estimate for a full deployment of the Aqua Dam based on the time to fill and overlap sections derived from multiple reasonable simulation activities performed by the licensee during the week of July 15 – 19, 2013.

This inspection constituted one external flooding sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- 2/3 A standby gas treatment (SBGT) during 2/3 B SBGT out-of-service;
- Unit 1 diesel fire pump (DFP) during Unit 2/3 DFP out-of-service;
- 2/3 A isolation condenser make-up (MU) pump during 2/3 B isolation condenser MU pump overhaul; and
- Unit 2 Division II low pressure coolant injection/containment cooling service water (CCSW) with Division I CCSW inoperable due to a thru wall leak.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, UFSAR, Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted four partial system walkdown samples as defined in IP 71111.04-05.

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

From September 20 - 30, 2013, the inspectors performed a complete system alignment inspection of the Unit 3 control rod drive system to verify the functional capability of the

system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Unit 2 Containment Cooling Service Water Pumps, elevation 495' Fire Zone 8.2.2A;
- Unit 3 Diesel Generator, elevation 517' Fire Zone 9.0B;
- Unit 2 Switchgear & Motor Control Center, elevation 517' Fire Zone 8.2.5A; and
- Unit 3 Switchgear Area, elevation 517', Fire Zone 8.2.5E.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan.
The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event.
Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration

seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted four quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R06 Flooding (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the corrective action program to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant area to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- Standby Cooling Service Water Header Pipe Leak on Turbine Building Elevation 549'.

This inspection constituted one internal flooding sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

On August 26, 2013, and again on September 6, 2013, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify that operator performance was adequate, that evaluators were identifying and documenting crew performance problems, and training was being

conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two quarterly licensed operator requalification program simulator samples as defined in IP 71111.11.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On September 6, 2013, the inspectors observed operators troubleshooting Unit 3 turbine runback received during stator water cooling pump swap. This was an activity that required heightened awareness and was related to increased risk. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms (if applicable);
- correct use and implementation of procedures;
- control board (or equipment) manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications (if applicable).

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- Maintenance Rule (MR) Z41 – Fire Protection; and
- MR Z44 – Circulating Water.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Unit 2 Yellow Risk during 2B Fuel Pool Cooling(FPC) Heat Exchanger Clean/Inspection;
- Unit 2 Yellow Risk during 2A FPC Heat Exchanger Clean/Inspection;
- Unit 2 Yellow Risk due to Division I CCSW out of service for leak repairs; and
- Both Units Yellow Risk due to Planned Maintenance on 2/3 'B' SBGT.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Documents reviewed during this inspection are listed in the Attachment to this report. These maintenance risk assessments and emergent work control activities constituted four samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- CCSW Check Valve Slow to Reposition for Emergency Core Cooling System (ECCS) room coolers;
- Unit 2 and Unit 3 Rod Block Monitor Electronics Fault Resulting in a Potentially Non-Conservative Setpoint;

- EC Evaluation 394150, “Technical Evaluation to Determine the Impact on Secondary Containment when Running a Hydrolazing Hose through Penetration N-38 and Gate Valve 2-1699-125,” Revision 1;
- Feedwater temperature reduction (FWTR) effect on reactor water clean-up (RWCU) high energy line break (HELB) and instrument line HELB and equipment EQ; and
- HPCI Operability with the Turning Gear Non-Functional.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee’s evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted five samples as defined in IP 71111.15-05.

b. Findings

(1) Failure to Update the Updated Final Safety Analysis Report for Reactor Water Cleanup System Design Changes

Introduction: A Severity Level IV NCV of 10 CFR 50.71(e), “Periodic Update of the Final Safety Analysis Report,” and an accompanying Green finding were identified by the inspectors for the licensee’s failure to update the UFSAR for a design modification performed on the Unit 3 RWCU system. Specifically, the licensee did not update Dresden UFSAR Section 5.4.8, “Reactor Water Cleanup System (RWCU),” to reflect changes made during a design modification installed on Unit 3 in 1997. The design changes included reducing the pipe dimension of RWCU piping outside of the primary containment and eliminating a string of regenerative and non-regenerative heat exchangers.

Discussion: The licensee performed design modifications to remove components potentially susceptible to intragranular stress corrosion cracking (IGSCC) to the Unit 2 (1996) and Unit 3 (1997) RWCU systems to include reducing the dimensions of piping outside of containment from 8 inches to 6 inches in diameter and by isolating one string of regenerative and non-regenerative heat exchangers on each unit.

During a recent HELB analysis to support the increased core flow (ICF) license amendment, the licensee noted that previous HELB analyses, such as for extended power uprate, did not consider the effects of feed water temperature reduction (FWTR) on the mass and energy liberated during a HELB on environmentally qualified (EQ) safety related components in the reactor building and the 10 CFR 100 accident

radiological release limits for the RWCU system and the reactor instrument line break scenario. Specifically, during coast down periods at the end of an operating cycle or if a feedwater heater string is isolated at power, FWTR would enable the licensee to operate at greater than 30˚F and up to 120˚F below nominal feedwater temperature values. From a HELB standpoint this would mean greater mass and energy would be released potentially impacting the EQ rating of safety related components in the vicinity of the break and offsite dose limits under 10 CFR 100. As a result the licensee re-evaluated HELB for RWCU and the instrument line break. The inspectors noted that the licensee reported that non-conservatisms rising from not considering FWTR would be mitigated and actually overcome by the significant conservatisms built into the RWCU HELB calculations. The most significant conservatism was that the RWCU HELB calculations did not consider the change in piping dimensions which were implemented as a part of the major modifications that took place in the 1990's.

The inspectors determined it was necessary to review other design documents such as the UFSAR, piping and instrumentation diagrams, and procedures to ensure that the modifications previously performed were adequately depicted and accounted for. The inspectors noted that the system description, as documented in UFSAR Section 5.4.8, "Reactor Water Cleanup System," incorrectly reported the design and operation of the Unit 3 RWCU system as that of which pre-existed the 1997 major modification. Specifically, the flow rate of the system, number of heat exchangers available, and the standard RWCU pump and valve lineup were incorrectly reported in the document.

Following identification of the discrepancy by inspectors, the licensee entered the issue into the station CAP as Issue Reports (IRs) 1541190 and created a UFSAR Change Request and initiated an extent of condition review for this deficiency. The licensee's review identified that UFSAR Change Request 97-103 had been generated at the time of the modification, but was not processed to completion. In addition the licensee continued its analysis of FWTR on RWCU and instrument line break HELB. Results indicated that additional energy released during these events would not challenge the EQ rating of safety related components in the reactor building or 10 CFR 100 release limits.

Analysis: The inspectors determined that the failure to update the UFSAR was contrary to 10 CFR 50.71(e) and was a performance deficiency warranting a significance evaluation. This violation was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because, if left uncorrected, the performance deficiency could have led to a more significant safety concern. Specifically, failure to update the UFSAR with the actual RWCU system configuration prevented the inspectors from readily concluding that the design change would not require additional calculational analyses for HELB.

Violations of 10 CFR 50.71(e) are dispositioned using the traditional enforcement process because they are considered to be violations that potentially impede or impact the regulatory process.

This violation is associated with a finding that has been evaluated by the SDP and communicated with a SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the

regulatory importance of the violation and the safety significance of the associated finding.

The inspectors completed a Phase 1 significance determination of this issue using IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” dated July 1, 2012 and IMC 0609, Appendix A, “The Significance Determination Process (SDP) For Findings At-Power,” dated July 1, 2012. The inspectors answered NO to all questions in Exhibit 2, Section A, “Mitigating SSCs and Functionality,” therefore the finding screened as Green (very low safety significance).

In accordance with Section 6.1.d.3 of the NRC Enforcement Policy, this violation is categorized as Severity Level IV because the information was not used to make an unacceptable change to the facility or procedures since the design changes did not result in a reduction of the previous margin to the 10 CFR 100 guidelines nor did they challenge the environmental quality rating of safety related components in the vicinity of the RWCU system during a HELB event outside of containment.

The inspectors determined that this finding did not reflect present performance because it is a legacy issue with changes made to the facility more than 16 years previously; therefore, there was no cross cutting aspect associated with this finding.

Enforcement: Title 10 CFR 50.71(e) requires in part, that licensees shall periodically update the Final Safety Analysis Report (FSAR), originally submitted as part of the application for the operating license, to assure that the information included in the report contains the latest information developed. This submittal shall include the effects of all the changes necessary to reflect information and analysis submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement since the submittal of the original FSAR, or as appropriate, the last update to the FSAR under this section.

Contrary to the above, from 1997 until August 2013, the licensee did not update the UFSAR for the design, operation, and characteristics of the Unit 3 RWCU system. Specifically, the licensee did not update the Dresden UFSAR Section 5.4.8 “Reactor Water Cleanup System,” to reflect changes made during a design modification installed on Unit 3 in 1997. The design changes included reducing the pipe dimension of RWCU piping outside of the primary containment and eliminating a string of regenerative and non-regenerative heat exchangers. In accordance with the Enforcement Policy, Section 6.1.d.3 the violation was classified as a Severity Level IV violation. Because this violation was of a very low safety significance, was not repetitive or willful, and was entered into the licensee’s CAP as IR 1541190, this violation is being treated as a Severity Level IV NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy **(SL IV 05000237/2013004-01; 05000249/2013004-01, “Failure to Update the UFSAR for RWCU Design Changes”)**.

Corrective actions included submitting a UFSAR change request to include the appropriate operating characteristics and specifications under the present design. In addition, the licensee reviewed all affected calculations to ensure no non-conservative outcomes were determined based on the design modifications installed.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modification:

- Engineering Change 387390, “Eliminate Erroneous Isolation Condenser Radiation Monitor Downscale Alarms,” Revision 000

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one permanent plant modification sample as defined in IP 71111.18-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance (PM) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- WO 1361093-01, “Repair U2/3 Diesel Fire Pump Exhaust at the Roof Penetration;”
- WO 01610201; “OPS PMT TSC Compressor 2/3-5750-TSC (Technical Support Center) Ventilation Fragnet;”
- WO 1368197-05, “ 2/3 3Y PM ISCO Makeup Pump Diesel Engine Surveillance;”
- WO 1667426-01, “ Perform Repair of U2 CCSW Piping Line # 2-1510- 16”-D Leak;” and

- WO 1480831, “D2/3 24M TS B SBGT Char Samp Iodine Removal Eff Test.”

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted five post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

(Open) Unresolved Item 05000237/2013004-03; 05000249/2013004-03, Potential Non-ASME Code Section XI Repair on Unit 2 Containment Cooling Service Water 16” Line

Introduction: During review of the repair and replacement plan under work order (WO) 1667426-01 for the repair of a thru-wall leak identified by the licensee on a 16” Containment Cooling Service Water (CCSW) line, the inspectors identified an Unresolved Item (URI) associated with the licensee’s interpretation of defect removal requirements as described in ASME Code, Section XI, Paragraph IWA 4422.1.

Description: During review of the repair and replacement plan under WO 1667426-01 for the repair of a thru-wall leak identified by the licensee on a 16” CCSW line, the inspectors identified a URI associated with the licensee’s interpretation of defect removal requirements as described in ASME Code, Section XI, Paragraph IWA 4422.1. Specifically, the inspectors questioned the licensee’s interpretation of defect removal as only applying to areas around the thru-wall leak that are below design minimum wall thickness. Paragraph IWA 4422.1(a), states that “A defect is considered removed when it has been reduced to an acceptable size.” Paragraph IWA 4422.1 does not specifically define what is considered the “defect” for repairs involving thru-wall leaks. Areas around the thru-wall leak that recorded less than nominal wall thickness but still greater than design minimum wall thickness, were not excavated by the licensee during repair of the thru-wall leak. These areas of less than nominal wall thickness but greater than design minimum wall thickness, may be indicative of some amount of localized corrosion similar to the corrosion immediately around the thru-wall leak. Hence, the inspectors questioned the adequacy of defect removal performed by the licensee during the repair.

Subsequent to the defect removal, the licensee welded a 4” diameter branched connection over the pipe area that was excavated including the original thru-wall leak

location. The new pressure boundary was the seal weld around this 4" branched connection and some areas of this seal weld lie over base pipe material that has wall thickness below nominal but above minimum design thickness. The inspectors did not have an immediate safety concern with the repairs because the wall thickness under the seal weld was still above minimum design wall thickness. However, the inspectors questioned the adequacy of defect removal because some material under the seal weld that is below nominal wall thickness may still experience potential corrosion and potentially challenge the new seal weld boundary. Therefore, the inspectors questioned whether this repair was an acceptable ASME Code repair or a non-ASME Code repair strictly prohibited by 10 CFR 50.55a (b) (2) (xxv) that would have required prior NRC review and approval.

The licensee entered this issue into their CAP as IR 01551855, "NRC Questions on Unit 2 CCSW Pipe Leak Repair," in which the licensee documents the concerns raised by NRC inspectors regarding the repair of the thru-wall leak. This URI will remain open pending receipt and evaluation of additional information to ascertain the correct ASME Code interpretation. (**URI 05000237/2013004-02; 05000249/2013004-02, Potential Non-ASME Code Section XI Repair on Unit 2 CCSW 16" Line**)

1R20 Outage Activities (71111.20)

.1 Other Outage Activities

a. Inspection Scope

From July 15 through August 2, 2013, the inspectors reviewed the licensee's Control of Heavy Loads Program in accordance with the NRC's Operating Experience Smart Sample (OpESS) FY2007–03, Revision 2, "Crane and Heavy Lift Inspection, Supplemental Guidance for Inspection Procedure (IP) 71111.20." The inspection included the activities listed below. Documents reviewed during the inspection are listed in the Attachment to this report.

- Reviewed the licensee's submittals and commitments related to Generic Letters (GLs) 80–113 and 81–07, "Control of Heavy Loads";
- Reviewed documents supporting the licensee's classification of the reactor building crane as single failure proof;
- Reviewed the licensee's reactor building crane preventative maintenance program procedures;
- Reviewed a sample of recent crane inspection records;
- Reviewed a sample of calculations and records of inspection / testing for the Reactor Pressure Vessel (RPV) Head and the Steam Dryer/Separator special lifting devices;
- Reviewed reactor disassembly and a sampling of other procedures for consistency with the commitments related to movement of heavy loads; and
- Reviewed a sample of condition reports related to Crane/Heavy Loads in licensee's (CAP).

This inspection constituted one outage activities sample as defined in IP 71111.20-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- WO 01635943, "D2 QTR TS 2A SBLC [standby liquid control] Pump Test for Inservice Testing Surveillance," (IST);
- WO 1635391, "D2 QTR TS Isolation Condenser Steam and Condensate Line Hi-flow CAL," (routine);
- WO 1521791, "D2/3 18M TSTR/COM AEER Manual Cardox System Test," (routine); and
- WO 1639674, "D2 QTR COM SBO [station blackout] Diesel Generator Surv Test." (routine)

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;

- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples, and one inservice testing sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

This inspection constituted one complete sample as defined in IP 71124.08-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the Final Safety Analysis Report, (FSAR) the Process Control Program, and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

The inspectors reviewed the scope of any quality assurance audits in this area since the last inspection to gain insights into the licensee's performance and inform the "smart sampling" inspection planning.

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

The inspectors selected areas where containers of radioactive waste are stored, and evaluated whether the containers were labeled in accordance with 10 CFR 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR 20.1905, "Exemptions to Labeling Requirements," as appropriate.

The inspectors assessed whether the radioactive material storage areas were controlled and posted in accordance with the requirements of 10 CFR Part 20, "Standards for Protection against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors evaluated whether they were secured against unauthorized removal and controlled in accordance with 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage," as appropriate.

The inspectors evaluated whether the licensee established a process for monitoring the impact of long term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) that was sufficient to identify potential unmonitored, unplanned releases or nonconformance with waste disposal requirements.

The inspectors selected containers of stored radioactive material, and assessed for signs of swelling, leakage, and deformation.

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the FSAR, Offsite Dose Calculation Manual, and process control program.

The inspectors reviewed administrative and/or physical controls (i.e., drainage and isolation of the system from other systems) to assess whether the equipment which is not in service or abandoned in place would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure. The inspectors assessed whether the licensee reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR 50.59, "Changes, Tests, and Experiments".

The inspectors reviewed the adequacy of changes made to the radioactive waste processing systems since the last inspection. The inspectors evaluated whether changes from what is described in the FSAR were reviewed and documented in

accordance with 10 CFR 50.59, as appropriate and to assess the impact on radiation doses to members of the public.

The inspectors selected processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers and assessed whether the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the process control program, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR 61.55, "Waste Classification".

For those systems that provide tank recirculation, the inspectors evaluated whether the tank recirculation procedures provided sufficient mixing.

The inspectors assessed whether the licensee's process control program correctly described the current methods and procedures for dewatering and waste stabilization (e.g., removal of freestanding liquid).

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- DW-13-003; Unit-2/3 Condensate Resin to Clive, Utah; Spent Resin; UN3321, Radioactive Material, LSA-II, Class 7; April 15, 2013;
- DW-13-004; Unit-2 Fuel Pool Resin-2011 to Clive, Utah; Dewatered Resin; LSA-II; Radioactive Material, LSA-II, Class 7; March 12, 2013; and
- DW-13-011; Unit-2/3 Dry Active Waste (DAW) to Duratek Services at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; June 4, 2013.

For the waste streams listed above, the inspectors assessed whether the licensee's radiochemical sample analysis results (i.e., "10 CFR Part 61" analysis) were sufficient to support radioactive waste characterization as required by 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors evaluated whether the licensee's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on current 10 CFR Part 61 analysis for the selected radioactive waste streams.

The inspectors evaluated whether changes to plant operational parameters were taken into account to: (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update; and (2) assure that waste shipments continued to meet the requirements of 10 CFR Part 61 for the waste streams selected above.

The inspectors evaluated whether the licensee had established and maintained an adequate quality assurance program to ensure compliance with the waste classification

and characterization requirements of 10 CFR 61.55 and 10 CFR 61.56, "Waste Characteristics."

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspectors assessed whether the requirements of applicable transport cask certificate of compliance had been met. The inspectors evaluated whether the receiving licensee was authorized to receive the shipment packages. The inspectors evaluated whether the licensee's procedures for cask loading and closure procedures were consistent with the vendor's current approved procedures.

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

- the licensee's response to NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979,
- Title 49 CFR Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training."

Due to limited opportunities for direct observation, the inspectors reviewed the technical instructions presented to workers during routine training. The inspectors assessed whether the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

b. Findings

No findings were identified.

.6 Shipping Records (02.06)

a. Inspection Scope

The inspectors evaluated whether the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and UN number for the following radioactive shipments:

- DW-13-008; Unit-2/3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; May 6, 2013;
- DW-13-009; Unit-2/3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; May 7, 2013; and
- DW-13-004; Unit-2 Fuel Pool Resin-2011 to Clive, Utah; Radioactive Material, LSA-II, Class 7; Fissile Excepted; June 4, 2013.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by the licensee at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee corrective action program. Additionally, the inspectors evaluated whether the corrective actions were appropriate for a selected sample of problems documented by the licensee that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed results of selected audits performed since the last inspection of this program and evaluated the adequacy of the licensee's corrective actions for issues identified during those audits.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness, Public Radiation Safety, and Occupational Radiation Safety

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index - Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI)- Heat Removal System (MS08) performance indicator for Dresden Nuclear Power Station Units 2 and 3 covering the period from the second quarter 2012 through first quarter 2013. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI)

Document 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 6, dated October 2009, were used. The inspectors reviewed the licensee’s operator narrative logs, issue reports, event reports, MSPI derivation reports, and NRC Integrated Inspection Reports for the period of April 2012 through March 2013 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI heat removal system samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index - Residual Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Residual Heat Removal System (MS09) performance indicator for Dresden Nuclear Power Station Units 2 and 3 covering the period from the second quarter 2012 through first quarter 2013. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 6, dated October 2009, were used. The inspectors reviewed the licensee’s operator narrative logs, issue reports, MSPI derivation reports, event reports and NRC Integrated Inspection Reports for the period of April 2012 through March 2013 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI residual heat removal system samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Cooling Water Systems (MS10) performance indicator for Dresden Nuclear Power Station Units 2 and 3 covering the period from the second quarter 2012 through first quarter 2013. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, MSPI derivation reports, event reports and NRC Integrated Inspection Reports for the period of April 2012 through March 2013 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI cooling water system samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.4 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the occupational radiological occurrences PI for the period from the first quarter 2012 through the second quarter 2013. The inspectors used PI definitions and guidance contained in the Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if indicator related data was adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with radiation protection staff, the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one occupational exposure control effectiveness sample as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

4OA3 Follow Up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report 05000237/2013-001-00, "Secondary Containment Inoperable Due to Two Interlock Doors Being Open Simultaneously"

On June 28, 2013, between 0749:07 and 0749:14, the secondary containment interlock doors separating the reactor building and the 2/3 emergency diesel generator (EDG) room were simultaneously open resulting in an unplanned entry into secondary containment, Technical Specification (TS) 3.6.4.1. Operators on scene rapidly shut the secondary containment boundary door on the 2/3 EDG side of the interlock ensuring that reactor building to outside environment differential pressure requirements were maintained at all times. At the time of the event, operators were passing through the 2/3 EDG side interlock door while a radiation protection member was accessing the interlock from the reactor building side. Information ascertained from the individuals involved during the licensee's Prompt Investigation identified a potential fault in the interlock circuitry associated with the 2/3 EDG room side door as the radiation protection individual observed no interlock warning light indications and was able to open the reactor building side door with the 2/3 EDG side door already in an open status.

Following the issuance of this licensee event report (LER) but prior to the end of the inspection period covered by this report, the licensee completed their apparent cause evaluation and corrective actions. The licensee determined that the latch bolt monitor (LBM) switch tripper associated with the 2/3 EDG room door strike had repositioned vertically in the downward direction due to use resulting in a micro switch mechanically linked to the LBM receiving an inaccurate indication of door position. Specifically, as the 2/3 EDG closes, the LBM is mechanically repositioned by the door latch which in turn mechanically closes a contact in a micro switch which sends a logic signal to the interlock control logic allowing the reactor building interlock door to be opened. In this instance, the LBM having vertically shifted over time was able to make up the micro switch contact with the door in the open position even though the LBM was free of the door latch. This provided a permissive signal to the reactor building door. Licensee corrective actions included replacing the entire 2/3 EDG room door strike mechanism with one that includes a redundant micro switch which would account for potential vertical shifting of the LBM over the life of the component. In addition, the licensee is working with the vendor to design a complementary magnetic limit switch to complement the door strike logic circuit and change the logic circuit to include an exclusive or (XOR) gate logic design. Presently, in the highly unlikely possibility that both interlock doors are actuated at the exact same instant, both doors would open under the current design.

The inspectors reviewed the maintenance history of the 2/3 EDG room door strike assembly and interlock circuitry and noted poor performance especially between 2007 and 2010. The licensee, through the MR (a)(1) program, established an action plan which included periodic logic circuit coil replacement, changing procedures to have personnel stationed at the doors during ventilation realignments which could result in larger than normal differential pressure across the doors, and an adjustment to the door operating mechanism was made to reduce the force by which the door was operated to minimize the likelihood of "door bounce" when the door was closing. In addition, the door strike mechanism was replaced in 2010. Substantially improved performed since 2010, indicate that the licensee's action plan was successful. The vendor door strike mechanism is designed to successfully operate for 500,000 cycles over its lifetime. The licensee estimates that the door strike operated approximately 20,000 times during

the period between 2010 and 2013. As a result, the licensee classified this failure as an isolated and rare premature failure of the door strike mechanism.

The licensee had not completed the apparent cause evaluation nor the corrective actions by the time the LER was due and as a result plans to make a supplemental report to discuss the apparent cause and corrective actions associated with this event. The inspectors subsequently reviewed the corrective actions associated with this event as documented in the licensees' Issue Report 1545683 and EACE 1545683-02 and had no concerns. No findings or violations of NRC requirements were identified.

This LER is closed.

This event follow up review constituted one sample(s) as defined in IP 71153 05.

.2 (Closed) Licensee Event Report 05000237/2013-002-00, "Movement of Control Rods with Control Rod Block Monitor Inoperable"

The inspectors reviewed LER 05000237/2013-002-00, "Movement of Control Rods with Control Rod Block Monitor Inoperable," to ensure that the issues documented in the report were adequately addressed in the licensee's corrective action program.

On June 30, 2013, Operations personnel identified that one of sixteen Local Power Range Monitor (LPRM) Bypassed indicating lights for the rod block monitoring system was extinguished. Normally with no control rods selected all sixteen LPRM Bypassed indicating lights will be lit. The operators changed the light bulb, but were unsuccessful in achieving a lit condition. The operators suspected a failed socket and noted that a similar condition existed on Unit 3. The operators generated IR 1531052 which created a work request to troubleshoot and repair the light indication.

The rod block monitor system possesses two channels (channel 7 and channel 8) and is designed to prevent localized fuel damage during a rod withdrawal error and provides additional margin to gross fuel failure and reduces the occurrence of initiating events by terminating a rod withdrawal before scram settings are reached. Each channel can independently provide a control rod block (preventing outward rod motion) if localized power as determined by the selected LPRM strings surrounding the selected control rod exceeds a flow biased core average power.

On July 17, 2013, Instrument Maintenance Department (IMD) personnel performing surveillance DIS 0700-08, "Rod Block Monitor (RBM) Calibration Test" on Unit 3 reported a failed surveillance due to the inability to achieve a low enough voltage (0.4 VDC) when adjusting the installed power potentiometer. The maintenance staff performing the surveillance reported to operations management that the surveillance failed, but they attributed the failure to an installed testing circuit and not the actual logic control circuit for Unit 3 RBM channel 7. Operations on shift management accepted this assessment without engaging system engineering even though they possessed a failed LPRM Bypassed indicating light and a failed surveillance. This was a missed opportunity to question abnormal indications.

On July 20, 2013, Unit 2 operations personnel were performing Technical Specification surveillance DOS 0700-07, "RBM Functional Test" and were unable to achieve downscale indications with the installed power potentiometer for RBM channel 8. Again

operations shift management considered the surveillance failed but did not consider the affected RBM channel inoperable because they relied on the previous assessment from maintenance that the power potentiometer though installed in the RBM circuitry, only affected the testing portion and did not reflect actual functionality of the RBM. At this point operations management failed to fully question abnormal control board light indications on both units and failed surveillances on both units associated with not being able to achieve downscale conditions for the input LPRM detection circuitry.

On July 23, 2013, Unit 2 operators selected control rod F6 (a non-peripheral control rod) and stepped it outward from position 00 to 02 and on July 27, 2013, Unit 2 non-peripheral control rods D8 and M8 were selected and repositioned outward from position 00 to 08. These rod maneuvers on Unit 2 would have been prevented if operators had questioned Unit 2 RBM channel 8 operability following the failed surveillance on July 20th.

On July 29, 2013, troubleshooting by IMD personnel subsequent to the failed LPRM Bypassed light on Unit 2 identified a failed quad trip card. The card which receives and vets LPRM inputs for acceptability was replaced and post maintenance testing of the RBM Channel 8 was completed successfully. Unfortunately operations and maintenance personnel still did not recognize that the failed card represented a failure of the RBM channel. Troubleshooting on Unit 3 RBM Channel 7 on July 31, 2013, indicated a similar failed quad trip card which was successfully replaced on August 2, 2013. Operations personnel realizing that control rods had been operated on Unit 2 during this time finally requested a design review from engineering to determine if these abnormal indications and failed cards could have indicated an actual failed RBM channel. Design engineering's review determined that failed relays in the quad trip cards of Unit 2 RBM channel 8 and Unit 3 RBM channel 7 manifested in LPRM Bypassed lights inappropriately extinguished and the failure to create surveillance requirement conditions during subsequent testing on both units and represented failure of both RBM channels.

The licensee reviewed main control room operations logs from the time when the indicating light was first identified extinguished and noted that only control rods on Unit 2 were selected and repositioned outward. Therefore only Unit 2 Technical Specification special conditions for applicability were entered.

A licensee identified Non-Cited Violation of the Dresden Station Improved Technical Specification 3.3.2.1, "Control Rod Block Instrumentation," of very low safety significance (Green) for the failure to declare RBM 8 inoperable and take actions in accordance with the requirements of Technical Specification 3.3.2.1, Required Actions A.1 and B.1 is documented in section 4OA7 of this inspection report.

This LER is closed.

This event follow up review constituted one sample(s) as defined in IP 71153 05.

4OA5 OTHER ACTIVITIES

.1 Correction to Input for Temporary Instructions-2515/182 - Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks

a. The Temporary Instructions (TI) -2515/182 inspection completion, documented in Dresden Inspection Report 05000237/05000249-2013003 (ML13219A080), contained a link to the specific questions the inspection focused on. The link provided in the report was incorrect, the following is the correct link: http://www.nrc.gov/reactors/operating/ops-experience/buried-pipe-ti-phase-2-insp-req-2011-11-16.pdf

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 10, 2013, the inspectors presented the inspection results to Mr. S. Marik, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The inspection results for the areas of radioactive solid waste processing and radioactive material handling, storage, and transportation; and occupational exposure control effectiveness performance indicator verification with Mr. S. Marik, Plant Manager, on July 19, 2013.

- On August 2, 2013, the inspectors presented the inspection results to Mr. S. Marik, Plant Manager, and other members of the licensee staff. The licensee acknowledged the issues presented.

- On August 28, 2013, the inspectors presented the inspection results to Ms. J. Knight, and other members of the licensee staff. The licensee acknowledged the issues presented.

The inspectors confirmed that none of the potential report input discussed was considered proprietary.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy, for being dispositioned as an NCV.

- The licensee identified a NCV of the Dresden Station Improved Technical Specification 3.3.2.1, “Control Rod Block Instrumentation,” of very low safety significance (Green) for the failure to declare RBM channel 8 inoperable and take

actions in accordance with the requirements of Technical Specification 3.3.2.1, Required Actions A.1 and B.1. Dresden Station Improved Technical Specification 3.3.2.1, “Control Rod Block Instrumentation,“ states, in part, “the control rod block instrumentation for each function in Table 3.3.2.1-1, shall be OPERABLE.” Technical Specification 3.3.2.1 Required Action A.1 requires an inoperable RBM channel to be restored to operable status within 24 hours; otherwise the affected channel must be placed in trip within 1 hour per Required Action B.1.

Contrary to the above, the licensee failed to declare Unit 2 RBM channel 8 inoperable and take actions in accordance with the requirements of TS 3.3.2.1 Required Action A.1 and B.1 when the licensee was unable to complete Surveillance Requirement 3.3.2.1.1 and possessed other indications that RBM channel 8 was not functioning properly. Specifically, the operators entered into a specified condition of Technical Specification 3.3.2.1 when they selected and operated non-peripheral control rods with reactor power greater than 30 percent rated thermal power coincident with RBM channel 8 inoperable. The licensee generated IR 1531052 and IR 1545143 to address this issue.

The inspectors completed a Phase 1 significance determination of this issue using IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” dated July 1, 2012 and IMC 0609, Appendix A, “The Significance Determination Process (SDP) For Findings At-Power,” dated July 1, 2012. The inspectors answered NO to all questions in Exhibit 2, Section C, Reactivity Control Systems. Therefore the finding screened as Green (very low safety significance).

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

S. Marik, Site Vice President, Former Station Plant Manager
D. Czufin, Former Site Vice President
J. Washko, Station Plant Manager
D. Anthony, NDES Manager
J. Biegelson, Engineering
H. Bush, Radiation Protection Manager
P. Chambers, Dresden Licensed Operator Requalification Training Lead
P. DiGiovanna, Training Director
P. DiSalvo, GL 89-13 Program Owner
H. Do, Engineering Manager
D. Doggett, Emergency Preparedness Manager
J. Fox, Design Engineer
J. Freeman, Corporate Engineering
G. Gates, Operations
G. Graff, Nuclear Oversight Manager
M. Hosain, Site EQ Engineer
G. Howard, Engineering
B. Kapellas, Operations Director
D. Ketchledge, Engineering
J. Knight, Director, Site Engineering
M. Knott, Instrument Maintenance Manager
J. Kish, Site ISI
S. Kvasnicka, NDE Level III
D. Leggett, Chemistry Manager
P. Mankoo, Chemistry Manager
G. Morrow, Regulatory Assurance Manager
M. McDonald, Maintenance Director
T. Mohr, Engineering Program Manager
D. O'Flanagan, Security Manager
M. Otten, Operations Training Manager
M. Pavey, RP Specialist
R. Ruffin, Licensing Engineer
D. Schiavoni, Engineering
R. Schmidt, Chemistry and Environmental Manager
J. Sipek, Work Control Director
R. Stachniak, Engineering
R. Sisk, Buried Pipe Program Owner
L. Torres, Engineering
D. Walker, Regulatory Assurance – NRC Coordinator
B. Weight, Design Engineering
D. Wolverton, Design engineering

Nuclear Regulatory Commission

P. Pelke, Acting Chief, Branch 6, Division of Reactor Projects
J. Rutkowski, Project Engineer, Branch 6

IEMA

R. Zuffa, Illinois Emergency Management Agency

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000237/2013004-01 05000249/2013004-01	SL IV,NCV	Failure to Update the UFSAR for Reactor Water Cleanup Design Changes (Section 1R15)
05000237/2013004-02 05000249/2013004-02	URI	Potential Non-ASME Code Section XI Repair on Unit 2 Containment Cooling Service Water 16” Line (Section 1R19)

Closed

05000237/2013004-01 05000249/2013004-01	SL IV, NCV	Failure to Update the UFSAR for Reactor Water Cleanup Design Changes (Section 1R15)
05000237/2013-001-00	LER	Secondary Containment Inoperable Due to Two Interlock Doors Being Open Simultaneously
05000237/2013-002-00	LER	Movement of Control Rods with Control Rod Block Monitor Inoperable

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

1R01 Adverse Weather Protection (71111.01)

- WO 01595040-01, "MM-Perform Aqua-Dam Demonstration"
- MA-DR-MM-6-00101, "Maintenance Activities for Site Flooding," Revision 000
- IR 1539265, "Aqua Dam Flood Protection Demonstration Lessons Learned"

1R04 Equipment Alignment (71111.04)

- M-49, "Diagram of Standby Gas Treatment"
- DOP 7500 M1/E1, "Unit 2/3 Standby Gas Treatment," Revision 6
- M-23, "Diagram of Fire Protection Piping," Sheet 5, Revision U
- DES 8300-13, "U1 and U2/3 Diesel Fire Pump and Security Diesel Starting Batteries Surveillance and Maintenance Procedure," Revision 16
- DFPS 4123-01, "U1 Diesel Fire Pump Operability," Revision 50
- DFPS 4123-16, "Returning U1 Diesel Fire Pump to Standby Following Start," Revision 1
- IR 01099402, "Fire Hazard Exists U1 DFP Exhaust Cribhouse Roof Penetration"
- IR 1549537, "NOS ID: Untimely Formal Communication of Issue"
- DRAWING M-4203, "Flow Diagram Isolation Condenser Make Up System"
- DRAWING M-28, "Diagram of Isolation Condenser Piping (Unit 2)"
- DRAWING M-359, "Diagram of Isolation Condenser Piping (Unit 3)"
- DOP 1300-M1/E1, Unit 2 Isolation Condenser System Checklist; Revision 18
- DOP 1300-M1/E1, Unit 3 Isolation Condenser System Checklist; Revision 24
- DOP 1500-E1, Unit 2 LPCI and CCSW Electrical Checklist, Revision 14
- DOP 1500-M1, Unit 2 LPCI and Containment Cooling Valve Checklist, Revision 43
- DOP 0300-M4, "Unit 3 Hydraulic Control Units East (Bank 3) Row 3 and 4," Revision 03
- DOP 0300-M2, "Hydraulic Control Units West (Bank 1) Row 7 and 8," Revision 03
- DRE-37592, Failure Analysis of a Dresden Unit 3 SSPV (1) Automatic Valve company B7122-145 Serial Number 71011 IR# 1121442 and 1442978 Component I.D. 3-0305-18-27-117
- IR 1442978, "U3 CRD 3-0305-18-27-117 (E-7) SSPV Buzzing and Discolored"
- IR 1121442, "U3 Solenoid Vlv Scram Pilot Assembly 18-27 E-7 Buzzing"
- DOP 0300-M1/E1, "Unit 3 Control Rod Drive Hydraulic System Checklist," Revision 38
- DOP 0300-M5, "Unit 3 Hydraulic Control Units West (Bank 4) Row 1 and 2," Revision 01
- IR 1565701, "NRC ID Issues with DOP 0300-M5 U-3"
- Drawing M-365, Sheet 1, Diagram of Control Rod Drive Hydraulic Piping
- M-34, 201LN001-005, HCU Piping Diagram

1R05 Fire Protection (71111.05

- Dresden Pre-Fire Plan 134 U2TB-37, Fire Area/Zone FZ 8.2.2A, Revision 3
- Calculation #DRE97-0105, Revision 8, Fire Zone 8.2.2.A
- IR 1534651, "Fire Protection Pre-Plan Drawings"

- Dresden 2 & 3, Fire Protection Reports, Volume 1 – Updated Fire Hazards Analysis, Section 2.4.2, “Fire Detection and Alarm Systems,” and Section 4.10.10, “Unit 3 Diesel Generator Room – Elevation 517 Feet 6 Inches Fire Zone 9.0.B”
- Low Pressure CO2 Fire Extinguishing System Functional Operability and Full Discharge Tests for the Diesel Generator and Day Tank Rooms, Dresden Nuclear Station, Commonwealth Edison Company, Revision 8, April 1992
- IR 1490409, “Battery Capacity Indicating Lights Not Lit”
- WO 1626485, “Battery Capacity Indicating Lights Not Lit”
- Dresden Fire Pre-Plan 144-U2TB-47, Fire Area/Zone FZ 8.2.5A, Revision 2
- Calculation #DRES97-0105, Revision 8, Fire Zone 8.2.5A
- Dresden Fire Pre-Plan 161-U3TB-72, Fire Area/Zone FZ 8.2.5E, Unit 3 Reactor Feed Pumps Elev. 517’, Revision 1
- Dresden Fire Pre-Plan 163-U3TB-74, Fire Area/Zone FZ 8.2.5E, Unit 3 Condensate Transfer Pumps/Hallway Elev. 517’, Revision 2
- Dresden Fire Pre-Plan 164-U3TB-75, Fire Area/Zone FZ 8.2.5E, Unit 3 Track Way Area Elev. 517’. Revision 4
- Dresden Fire Pre-Plan 165-U3TB-76, Fire Area/Zone FZ 8.2.5E, Unit 3 Switchgear Area Elev. 517’, Revision 2
- Dresden 2 & 3, Fire Protection Reports, Volume 1 – Updated Fire Hazards Analysis, Table 2.1-2, “Appendix R Shutdown Paths By Fire Zone,” and Section 4.10.7, “Turbine Building – Ground Floor Unit 3- West Side (Fire Zone 8.2.5.E)”
- IR 1555679, “Fire Protection Pre-Fire Plans”

1R06 Flooding (71111.06)

- IR 1531282, “Service Water Header Leak”
- Ultrasonic Thickness Report Number 13-142
- “Dresden Internal Flooding Evaluation Summary and Notebook,” DR PSA-012, Revision 2, May 2009

1R11 Licensed Operator Requalification Program (71111.11)

- DOA 7400-01, “Failure of the Stator Coolant System,” Revision 33

1R12 Maintenance Effectiveness (71111.12)

- Dresden Station Maintenance Rule Periodic Assessment #9 (10CFR 50.65(a)(3) Assessment), Period 10/1/10 – 9/30/12
- CC-AA-209, “Fire Protection Program Configuration Change Review,” Revision 4
- CC-AA-209-1001, “Guidelines for Performing Fire Protection Program Configuration Change Review,” Revision 0
- Maintenance Rule Expert Panel Agenda 4/14/11, (a)(1) Determination for functions Z41-2/Z41-4
- Maintenance Rule Expert Panel Agenda 6/9/11, (a)(1) Action Plan for functions Z41-2/Z41-4
- Maintenance Rule Expert Panel Agenda 8/18/11, (a)(2) Determination for functions Z41-2/Z41-4
- IR 1424845, “New MR Function Z44-6 Requires A1 Determination”
- IR 1352257, “Additional Issues with 2/3 Screen Refuse Pit and Pump Pit”
- IR 1260488, “2/3 Cribhouse Screen Refuse Pit Pumps Were Wetted”
- IR 1333939, “2/3B Screen Refuse Pump Not Pumping”
- IR 1467011, “Z44-1 Circulating Water Exceeded maintenance Rule Criteria”

- Dresden System Health Monitoring Report, 2nd Quarter of 2013 (2Q13)
- Drawing M-36, Diagram of Circulating Water and Hypochlorite Piping
- EC 392950, Rev.000, “2/3 Screen Refuse Pit Upgrade (Top Ten Tactical) – Dry Side”
- EC 393112, 2/3 Screen Refuse Pit Upgrade (Top Ten Tactical) – West Side”
- DOA 0010-01, “Dresden Lock and Dam Failure,” Revision 31
- Availability Log for System 44-6 Train, November 4, 2010 through January 3, 2013

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

- Operations Policy 02, Attachment - Protected Equipment List – 2A Fuel Pool Cooling
- DOA 1900-01, “Loss of Fuel Pool Cooling (W-3, W-7),” Revision 22
- DAN 902(3)-4 G-24, “Fuel Pool PP Trip,” Revision 8
- OP-AA-108-117; “Protected Equipment List,” 2B Fuel Pool Cooling
- Ops Policy 02
- Attachment B, – Protected Equipment List – Div 2 CCSW
- IR 1550403, “U2 CCSW Piping Leak”
- DOP 1500-E1, Unit 2 LPCI and CCSW Electrical Checklist, Revision 14
- DOP 1500-M1, Unit 2 LPCI and Containment Cooling Valve Checklist, Revision 43
- DWG ER-AA-335-004, Rev. 6 Vertical sketch sheet, report number 13-163
- Ops Policy 02, Attachment B – Protected Equipment List, Component being protected: “B” SBGT

1R15 Operability Determinations and Functional Assessments (71111.15)

- IR 1529485, Check Valve 2-3999-252 Slow to Seat During DOS 1500-02
- DRAWING M-29, Diagram of Low Pressure Coolant Injection Piping; Sheet 2
- DOS 1500-02, Containment Cooling Service Water Pump Test and Inservice Test; Revision 80
- IR 1541903, “U3 RBM 7 Issue”
- IR 1541880, “U2 RBM 8 Averaging Resistor Failure”
- IR 1537977, “RBM 8 Power Potentiometer Unable to be Adjusted Low Enough”
- IR 1534419, “LPRM Upscale Alarm Out of Tolerance”
- IR 1538153, ”Quarterly RBM Surveillance Failed on Unit 2 Due to RBM 8 Equipment Issue”
- IR 1538145, “Quarterly RBM Surveillance Failed on Unit 3 Due to RBM 8 Equipment Issue”
- IR 1536840, “Can Not Get Correct Signal for Meter Cal on RBM 7”
- IR 1531052, “LPRM Light Socket Needs Replacing”
- IR 1545143, “Review of U2 RBM8 and U3 Quad Trip Card Z28 Failures”
- DRAWING 12E-2473AA, Schematic Diagram Power Range Neutron Monitoring System RBM 7
- DRAWING 12E-2473AB, Schematic Diagram Power Range Neutron Monitoring System RBM 8
- DRAWING 12E-2473AC, Schematic Diagram Power Range Neutron Monitoring System RBM 8
- DRAWING 12E-2473AD, Schematic Diagram Power Range Neutron Monitoring System RBM, AUX Relays, RMT Relays
- 21502-001, RBM Block Diagram, Revision 0
- Drawing 21502-002, RBM Channel 7 Simplified Schematic, Revision 5
- DOS 0700-07, “Rod Block Monitor Functional Test”
- EC Eval 348117, “Technical Evaluation to Determine the Maximum Penetration and Infiltration Impacts to Secondary Containment and Standby Gas Treatment System”
- DRF 0000-0135-9756; “HELB Mass and Energy Release Evaluation; Revision 0

- Unit 2 and Unit 3 Reactor Power versus Feedwater Temperature 2010 through 2013
- Design Analysis 113-N-001,"P/T Response Following a RWCU Line Break in the RWCU Heat Exchanger Room;" Revision 0
- GE-NE-A22-00103-66-01, "Dresden and Quad Cities Extended Power Uprate HELB Mass and Energy Release Evaluation;" Revision 0
- Letter From J. Hosmer to U.S.NRC; Reactor Water Clean Up System, High Energy Line Break (HELB) Outside the Drywell, September 4, 1996
- NF-BEX-12-107, "Dresden Nuclear Power Station Unit 3 Cycle 23 Reload Engineering Report;" Revision 0
- Letter from C. de la Hoz to Doug Wise, Approval of GE Evaluation of Dresden and Quad Cities Extended Final Feedwater Temperature Reduction; August 27, 2002
- Letter from J. Hosmer, Commonwealth Edison to NRC, RE: Dresden U2 and 3, Quad Cities U1 and 2, RWCU System, HELB Outside the Drywell
- IR 1538812, "RWCU and ILB HELB Calculations do not Support FWTR"
- M-30, Diagram of Reactor Water Clean-Up System (Unit 2); Sheet 1
- M-361, Diagram of Reactor Water Clean-Up System (Unit 3); Sheet 1
- P&ID M-30, DRES204LN001-001, RWCU System and Instrumentation, Revision 04
- IR 1541190, "NRC Question: RWCU HELB Modification"
- OP-AA-102-104, Attachment 2, "Standing Order for FWTR and HELB Analysis, Log Number 13-05," Revision 02
- EC Eval 394899, Revision 0, "HPCI Turning Gear Effect on system Operability"
- CC-AA-309-1001, Attachment 8 "Three-pass Review Instructions and Checklist," Revision 8
- EC 365384, "HPCI Turning Gear Performance on HPCI System Operability"
- IR 1549806, "Change in Requirements for HPCI Operability"
- IR 1292098, "Evaluate if HPCI Remains Operable Without Turning Gear"
- DOP 2300-02, HPCI System Truning Gear Operation," Revision 09
- Letter 07-020 from Daniel B. Miller, GE Energy to Jens Friedrichsen, Exelon Nuclear, Quad Cities, dated 20070607, RE: GE Fitchburg Mechanical Drive Turbine – Turning Gear Operation, with attachment "Information Letter TIL 66-3, Turning Gear Operation Utility Boiler Feed Pump Turbines"
- QCOA 2300-08, "HPCI Turning Gear Fails to Start or Engage automatically on a Coastdown," Revision 9
- QCOP 2300-13, "HPCI Turning Gear Operation," Revision 7

1R18 Plant Modifications (71111.18)

- 50.59 Screening No. 2012-0069, Revision 000
- WO 1508271-01, "Iso Cond Rad Monitor Downscale Alarms"
- DIS 1300-04, "Isolation Condenser Vent Radiation Monitor Calibration and Operational Checks," Revision 22
- CC-AA-107, "Configuration Change Acceptance Criteria," Revision 8
- Dresden Offsite Dose Calculation Manual (ODCM) section 2.2.2.6, "Isolation Condenser Vent Monitor"

1R19 Post-Maintenance Testing (71111.19

- WO 1361093-01, "Repair U2/3 Diesel Fire Pump Exhaust at the Roof Penetration"
- IR 01099409, "U2/3 DFP Exhaust Pipe Degraded"
- IR 01391991, "Degraded 2/3 DFP Exhaust Pipe on Roof"
- IR 01539803, "2/3 DFP Smoke From Oil Soaked Lagging Near Turbo"
- IR 01539884, "PMT Couldn't Be Performed"

- IR 01539981, “Fire Protection – Smoke From 2/3 DFP”
- DOP 5750-16, Technical Support Center Ventilation; Revision 11
- WO 01610193, EM D2/3 184D PM TSC Air Handling Unit Belt Inspect/Replace
- WO 01610196, EM D2/3 4Y PM TSC Duct Electric Heater Coil
- WO 01610197, D2/3 2Y PM TSC Air Filtering Unit Belt Inspect/Replace
- IR 1535552, Cracked Belts Found on TSC Air Handling Unit
- IR 1535719, Issues Found During TSC HVAC Work
- IR 1535886, TSC Air Compressor Making Noise After Maintenance
- WO 1368197-05, “ 2/3 3Y PM ISCO Makeup Pump Diesel Engine Surveillance”
- DOP 1300-03, “2/3A(B) Isolation Condenser Makeup Pump Quarterly Operability,” Revision 19
- IR 1550158, “Fuel Leak Found at Throttle Positioning Shaft”
- WO 1667313, “Fuel Leak Found at Throttle Positioning Shaft”
- WO 1667426-01, “ Perform Repair of U2 CCSW Piping Line # 2-1510- 16”-D Leak”
- IR 1551855, “NRC Questions on U2 CCSW Pipe Leak Repair”
- EC 395010, Rev. 000, “Code Repair of Through-Wall Leak on the CCSW Div. I Header Piping 2-1510-16”-D in U2 RB Torus Area”
- IR 1550933, “Stores Conditional Release of art for ‘At Risk’ Installation”
- WO 1667580, “D2/3 1M TS SBGT Charcoal Absorber Moisture Removal”
- DOS 7500-02, “SBGT System Surveillance and IST Test,” Revision 48
- DOS 0040-07, “Verification of Remote Position Indication for Valves Included in Inservice Testing (IST) Program,” Revision 43
- DMP 7500-01, “Standby Gas Treatment Charcoal Filter Replacement,” Revision 8
- Radioiodine Penetration/Efficiency Test Report, Test Report No. 0037776, Sample No. 13-017182
- DTS 7500-07, “Standby Gas Treatment System Air Filter Unit Performance Requirements
- (Methyl Iodide Removal Laboratory and Charcoal Bank In-Place Leak Test),” Revision 17
- WO 1480831, “D2/3 24M TS B SBGT Char Samp Iodine Removal Eff Test”

1R20 Outage Activities (71111.20)

- Crane and Heavy Lift Inspection (OpESS FY2007–03)
- Calculation DV730E179; Reactor Pressure Vessel Head Lifting device (General Electric); Revision 0
- Calculation 487-002Ca; Steam Dryer/Steam Separator Lifting Device Calculation (General Electric); Revision 1
- Calculation 8.31.0-4, Load Drop Evaluation in the Hatchway of the Reactor Building; Revision 1
- Calculation NQ-ST1, Reactor Head Strongback and Moisture Separator Hook Box; Revision 0
- Calculation DRE02-0064, D2/3 Load Drop Evaluation of the Reactor shield Plug; Revision 0B
- EC EVAL 339901; Attachments A - E, Weights of Concrete shield Blocks (Cookies) and Reactor Vessel Head; October 7, 2002
- Drawing 1240, Reactor Head Strongback; Revision C
- Drawing 124D1216, Dryer & Separator Lifting Device, sheets 1-3; Revision 1
- TIA-2001-13, NRC Response to TIA-2001-13, Backfitting Requirements for Dresden Units 1 and 3 Reactor building Crane; February 21, 2003
- Dennis L Zeimann (NRC) Letter to R L Bloger (Commonwealth Edison); Issue of Amendments Nos. 22 and 19; June 3, 1976
- Dennis M Crutchfield (NRC) Letter to Dennis L Farrar (Commonwealth Edison), NUREG-0612, Control of Heavy Loads At Nuclear Plants, Dresden Nuclear Power Station, Unit Nos. 2 and 3; July 11, 1983

- Dennis M Crutchfield (NRC) Letter to Dennis L Farrar (Commonwealth Edison), Control of Heavy Loads - Phase II, NUREG 0612; June 28, 1984
- Maitri Banerjee (NRC) Letter to John L Skolds (Exelon Nuclear); Dresden Nuclear Power Station, Units 2 and 3 – Issuance of Amendments – Heavy Loads Handling (TAC NOS. MB7840 and MB7841), October 10, 2003
- Maitri Banerjee (NRC) Letter to Christopher M Crane (Exelon Generation Company); Dresden Nuclear Power Station, Units 2 and 3 – Issuance of Correction – Replacement Pages for the Safety Evaluation - Heavy Loads Handling Amendments (TAC NOS. MB7840 and MB7841), March 2, 2004
- MA-AA-716-022, Rigging and Lifting Program; Revision 19
- MA-AA-716-022, Control of Heavy Loads Program; Revision 11
- MA-AB-756-600, Reactor Disassembly; Revision 18
- MA-DR-MM-5-58003, Visual Inspection and Preventive Maintenance of Unit 1, Unit 2, and Unit 2/3 Overhead and Gantry Cranes; Revision 14
- DFP 0800-20, Operation of 2/3 Reactor Building 125/9 Ton Crane; Revision 27
- DFP 0800-69, Hi-Trac Movement within the Unit 2/3 Reactor Building; Revision 24
- DFP 0800-70, Hi-Trac Loading Operations; Revision 29
- DMP-5800-18, Load Handling of Heavy Loads and Lifting Devices; Revision 23
- DMS 5800-09, Maintenance Department Lifting Devices, annual Inspection; Revision 5
- DES-5800-02, Overhead Crane Annual Electrical Inspection; Revision 12
- DOS-0800-06, Unit 2/3 Reactor Building Crane Operation in Restricted Modes Test; Revision 19
- WO 1650177, D2/3 1M COM OSHA Reactor Bldg Overhead Crane Inspection; July 12, 2013
- WO 1545617-07, PMT Cookie Limits on 2/3-5801; November 5, 2012
- WO 1283223-01, D2 RFL PM RX BLDG Crane Load Cell Test/Cal Unit 2; October 14, 2011
- WO 1371488-01, D3 Pre / RFL PM INSP of Maintenance Department Lifting Devices; October 19, 2012
- WO 1638908-01, NDE Identifies Linear Indication on the RB Main Hook; May 3, 2013
- IR 708377, NEI Initiative on Heavy Loads; December 6, 2007
- IR 606086, Assignment #7, Perform NUREG-0612 Review at Dresden; August 31, 2007
- IR 1212924, 2/3 RB Crane PM Failed; May 6, 2011
- IR 1282538, Inconsistent GE Documents for Steam Dryer Strongback Eval; October 28, 2011
- IR 1380488, NOS ID: Work Package not Meeting Heavy Load Lift Requirements; June 21, 2012
- IR 1509220, NDE Identifies Linear Indications on RB Main Hook; May 1, 2013
- IR 1516839, NOS ID: RB Overhead Crane Not Load Tested at UFSAR Frequency; June 4, 2013
- IR 1528673, Calculations 5058-00-NQ-ST1 & 6858-RB-12 Acceptance Criteria; June 25, 2013
- IR 1530408, RPV/RX/DW Head & Dryer/Separator Stongback Calc Issues; June 28, 2013
- IR 1542283, Restricted Mode Test for RBOC Not Properly Documented; August 1, 2013
- IR 1543393, DMP 5800-18 Clarification – NRC Heavy Loads Audit; August 5, 2013
- IR 1543414, Strongback Calcs – NRC Heavy Loads Audit; August 5, 2013
- IR 1543421, DFP 0800-20 Clarification – NRC Heavy Loads Audit; August 5, 2013
- IR 1543431, DMS 5800-09 Clarification – NRC Heavy Loads Audit; August 5, 2013
- IR 1543469, Top Outage Priority – Strongback Pins – NRC Heavy Loads; August 5, 2013
- IR 1543476, MA-AA-716-022 Clarification – NRC Heavy Loads Audit; August 5, 2013
- IR 1543493, UFSAR 9.1.4.4.2 Compliance Question – NRC Heavy Loads Audit; August 5, 2013
- IR 1543326, Dry Cask Procedure Clarification – NRC Heavy Loads Audit; August 5, 2013
- IR 1543501, RXB Crane Hook question – NRC Heavy Loads Audit; August 5, 2013

- IR 1543513, UFSAR 9.1.4.3.2 Compliance Question – NRC Heavy Loads Audit; August 5, 2013
- IR 1543526, RBX Overhead Crane Limit Switch Test – NRC Heavy Loads Audit; August 5, 2013
- IR 1545118, MA-DR-MM-5-58003 Issue – NRC Heavy Loads Inspection; August 9, 2013

1R22 Surveillance Testing (71111.22)

- WO 01635944, "D2 QTR TS 2B SBLC PMP Test for Inservice Testing Surveillance"
- DOS 1100-04, Standby Liquid Control System Quarterly/ Comprehensive Pump Test for the Inservice Testing Program; Revision 47
- Drawing M-33, Diagram of Standby Liquid Control Piping
- DIS 1300-02, "Unit 2 Isolation Condenser Steam/Condensate Line High Flow Calibration," Revision 29
- EC 360339, "Evaluate Druck Model DPI 610 as a Suitable Replacement for the Druck Model 601," Revision 000
- Analysis No., DRE98-0047, "Dresden Station Measurement and Test Equipment (M&TE) Accuracy Calculation," Revision 004
- DFPS 4145-02, "Auxiliary Electric Equipment Room Manual Cardox System," Revision 20
- EC 388119, "AEER Cardox Timer/Set Point Change for the Discharge Timer"
- IR 1540920, "CO2 Timer TR2 Found Low During Performance of DFPS 4145-02"
- IR 1540931, "Procedure Rev for DFPS 4145-02"
- DSSP 0100-CR, "Hot Shutdown Procedure – Control Room Evacuation," Revision 47
- IR 1545178, "U2 SBO Engine 2B Jacket water Cooling Bad I/O"
- IR 1545174, "U2 SBO Expansion Tanks 'A' & 'B' Level Alarms I/O Bad"
- IR 1545170, "Remote Cylinder Temperatures Low Out of Band"
- IR 1545104, "Bad Pressure Reading on MCR U2 SBO HMI Screen"
- IR 1545127, "Alarms on 2-2202-105 Not Working Correctly"
- IR 1538482, "U2 SBO Alarm Locked In"
- IR 1545132, "Small Oil Leak on 2-6620-4B"

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

- DW-13-008, Unit 2 and 3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; May 6, 2013
- DW-13-009, Unit 2 and 3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted, May 7, 2013
- DW-13-004, Unit 2 Fuel Pool Resin-2011 to Clive, Utah; Radioactive Material, LSA-II, Class 7; Fissile Excepted; June 4, 2013
- DW-13-008, Unit 2 and 3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; May 6, 2013
- DW-13-009, Unit 2 and 3 DAW to Duratek at Bear Creek; Radioactive Material, LSA-II, Class 7; Fissile Excepted; May 7, 2013
- DW-13-004, Unit 2 Fuel Pool Resin-2011 to Clive, Utah; Radioactive Material, LSA-II, Class 7; Fissile Excepted; June 4, 2013
- DM-13-015, Various Resin Samples for Part 61 Analysis to Teledyne Brown Engineering; UN2915, Radioactive Material, Type-A Package, Class 7; February 14, 2013
- RW-AA-100, Process Control Program for Radioactive Waste; Revision 8

- FO-OP-022-161024, Energy Solutions; Ecodex Precoat/Powdex/Solka-Floc/Diatomaceous Earth/Zeolite Dewatering Procedure for 14-215 or Smaller Liners at Dresden Station; January 28, 2011
- FO-OP-023-161024, Waste Transfer and Bead Resin/Activated Carbon Dewatering Procedures for Energy Solutions 14-215 or Smaller Liners at Dresden Station; January 28, 2011
- RP-AA-605, Waste Stream Result Review; Revision 4; Data Review for DAW on April 10, 2012
- IR-01249861, NOS Identified Sealand TAG Not Reflective of Actual Dose Rates; August 8, 2011
- IR-01314449, Trailer Delivered without RP Direction; January 17, 2012
- IR-01533686, Miscommunication During Receipt of Radioactive Shipment; July 8, 2013
- IR-01534610, Cask Arrived from Energy Solutions with Water; July 11, 2013
- IR-01375220, Nuclear Oversight Identified Radwaste Shipping Records Needed Management Attention; June 6, 2012
- IR-01533686, Miscommunication During Receipt of Radioactive Shipment; July 7, 2013
- IR-01184431, Dose Outside Dose Performance Criteria for Dry Cask Storage; March 7, 2011
- IR-01377985, NOS Identified Inappropriate Shipping Documentation; June 14, 2012
- IR-01412433, Shipping Paperwork have Administrative Errors; September 13, 2012
- IR-01427888, Contraband Found While Unloading Laundry Trailer that is Marked as an LSA Shipment from a Vendor; October 12, 2012
- IR-01429836, Liners in IRSF Need Dose Characterization for Distribution; October 22, 2012
- IR-01434955, Trailer Cover Arrived Ripped; October 31, 2012
- IR-01446574, Energy Solutions to Unitech Shipment Troubles; November 30, 2012
- IR 01533686, Miscommunication During Receipt of Radioactive Shipment; July 8, 2013
- Unit 2 and 3 Condensate Resin 2013 10 CFR Part 61 Database Analysis, June 6, 2013
- Unit 3 RWCU Resin 2012-10 CFR Part 61 Database Analysis, March 20, 2013
- L50049, DAW 2012-10 CFR Part 61 Database Analysis; March 20, 2013
- RP-AA-602, Packaging of Radioactive Material Shipments; Revision 18
- RP-AA-603, Inspection and Loading of Radioactive Material Shipments; Revision 8
- RP-AA-605, 10 CFR Part 61 Program; Revision 5
- Trending for Shifts in Scalling Factors, April 11, 2013
- Radioactive Waste Shipment Logs, 2012 – 2013

4OA1 Performance Indicator Verification (71151)

- NEI 99-02, Regulatory Assessment Performance Indicator Guideline; Revision 6
- DR-MSPI-01, Reactor Oversight Program MSPI Bases Document Dresden Nuclear Generating Station; Revision 9
- Dresden Unit 2 Performance Indicator Data, 2nd Quarter 2011 thru 1st Quarter 2013
- Dresden Unit 3 Performance Indicator Data, 2nd Quarter 2011 thru 1st Quarter 2013
- MSPI Unresolved PRA Outliers and Generic PRA Issues List
- Monthly CDE availability and reliability data sheets for the Unit 2 and 3 Isolation Condensers, April 2012 through March 2013
- BWR Owner's Group MSPI Cross Comparison Preliminary Results, 2005
- Operator's Logs, April 2012 through March 2013
- Monthly CDE availability and reliability data sheets for the Unit 2 and 3 Low Pressure Coolant Injection, April 2012 through March 2013
- Monthly CDE availability and reliability data sheets for the Unit 2 and 3 Containment Cooling Service Water, April 2012 through March 2013
- MSPI LPCI & CCSW System MSPI Data Collection and Entry

- LS-AA-2150; Monthly Data Elements for Occupational Radiation Safety Occurrences, Revision 5
- LS-AA-117-1002; Licensing and Regulatory Affairs Correspondence Concurrence Form, Revision 3; January 2012 through April 17, 2013
- PI Data Elements, from January 2012 through June 2013

4OA3 Event Follow Up (71153)

- EACE 1545683-02, “2/3 Emergency Diesel Secondary Containment Door Interlock Failure”
- IR 948122, “Door Operator for 2/3 EDG Interlock Door Needs Adjustment”
- IR 944098, “Secondary Containment Maintenance Rule Performance Criteria Exceeded”
- IR 1538277, “NRC Resident Informed MCR of TB/RB Door Issue
- IR 1539320, “Poor Control of Secondary Containment”
- IR 1539291, “U3 517 Interlock Doors Do Not Seal Properly When Closed”
- IR 1539319, “2/3 EDG Interlock Door From U2 HPCI Room Does Not Lock”
- IR 1539270, “Results of Troubleshooting 2/3 EDG Interlock Doors”
- IR 1545683, “2/3 EDG Interlock Failure Troubleshooting Results”
- IR 1545072, “Wiring Found Not Per Prints – CCP”
- IR 1530208, “Secondary Containment Declared INOP”
- IR 1538896, “902-4 E21 U2/3 Diesel Generator Interlock Door INOP/BYP”
- IR 1493171, “Unexpected Alarm 902-4 E-21, U2/3 Diesel Generator Interlock Doors INOP”
- IR 1565652, “NRC Resident Questions U2 Rod Block Monitor ACE”
- EN 47540, “Both Unit Two Secondary Containment Doors Were Inadvertently Left Open”
- Maintenance Rule Expert Panel Agenda, October 15, 2009, Function ID Z01-01
- IR 1189950-03, “ACE to OPS to evaluate the issue and human performance gaps in not identifying the failed instrument and determine corrective actions”
- OP-AA-108-115-1002, “Supplemental Consideration for On-Shift Immediate Operability Determinations”
- DOS 0700-07, “Rod Block Monitor Functional Test,” Revision 26
- DIS 0700-08, “Rod Block Monitor Calibration Test,” Revision 37
- OP-AA-103-102, “Watch-Standing Practices,” Revision 12
- IR 1546117, “EACE Requested for IR 1545143 Equipment Issue”
- IR 1563305, “MRule Review of U2 RBM 8 and U3 RBM 7”

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CCSW	Containment Cooling Service Water
CFR	Code of Federal Regulations
CRD	Control Rod Drive
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
FPC	Fuel Pool Cooling
FWTR	Feedwater Temperature Reduction
GE	General Electric
GL	Generic Letter
HELB	High Energy Line Break
HIC	High Integrity Container
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
IR	Issue Report
LER	Licensee Event Report
LLC	Limited Liability Corporation
LPCI	Low Pressure Coolant Injection
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
OpESS	Operating Experience Smart Sample
PARS	Publicly Available Records System
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PM	Planned or Preventative Maintenance
PMT	Post-Maintenance Testing
RP	Radiation Protection
RPV	Reactor Pressure Vessel
RWCU	Reactor Water Cleanup
SBGT	Standby Gas Treatment
SBLC	Standby Liquid Control
SBO	Station Blackout
SDP	Significance Determination Process
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
WO	Work Order

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Sincerely,

/RA/

Patricia J. Pelke, Acting Chief
Branch 6
Division of Reactor Projects

Docket Nos. 50-237; 50-249
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Letter to Michael J. Pacilio from Patricia J. Pelke dated November 1, 2013

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3
NRC INTEGRATED INSPECTION REPORT 05000237/2013004;
05000249/2013004

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