UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
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April 23, 2015

Mr. Raymond Lieb
Site Vice President
FirstEnergy Nuclear Operating Co.
Davis-Besse Nuclear Power Station
5501 N. State Rte. 2, Mail Stop A–DB–3080
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION INTEGRATED INSPECTION REPORT 05000346/2015001 AND 07200014/2015001

Dear Mr. Lieb:

On March 31, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the results of this inspection, which were discussed on April 9, 2015, with you and other members of your staff.

Based on the results of this inspection, no findings were identified. One licensee-identified violation which was determined to be of very low safety significance is documented in Section 4OA7 of this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

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/

Jamnes L. Cameron, Chief
Branch 4
Division of Reactor Projects

Docket Nos. 50–346; 72–014
License No. NPF–3

Enclosure:
IR 05000346/2015001 and 07200014/2015001
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos.:	50–346; 72–014
License No:	NPF–3
Report No:	05000346/2015001 and 07200014/2015001
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Davis-Besse Nuclear Power Station
Location:	Oak Harbor, OH
Dates:	January 1, 2015, through March 31, 2015
Inspectors:	D. Kimble, Senior Resident Inspector T. Briley, Resident Inspector R. Baker, Operations Licensing Examiner M. Learn, Reactor Engineer, DNMS M. Mitchell, Health Physicist R. M. Morris, Senior Operations Licensing Examiner
Approved by:	J. Cameron, Chief Branch 4 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000346/2015001 and 07200014/2015001; 1/1/15-3/31/15; Davis-Besse Nuclear Power Station; Routine Quarterly Integrated IR.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Cross-cutting aspects are determined using Inspection Manual Chapter (IMC) 0310, "Aspects Within the Cross-Cutting Areas" effective date December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process" Revision 5, dated February 2014.

Cornerstone: Initiating Events

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

The unit began the inspection period operating at full power. With the exception of small power maneuvers (e.g., reductions of 10 percent power or less) to facilitate planned evolutions and testing, the unit remained operating at or near full power for the balance of the inspection period.

REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition–Heavy Snowfall Conditions

a. Inspection Scope

On February 1–2, 2015, the site experienced a severe winter storm that resulted in a Level 3 (most severe possible) Snow Emergency in Ottawa County Ohio, where the plant is located, and in many of the surrounding counties as well. The inspectors observed the licensee's preparations and planning for the significant winter weather potential. The inspectors reviewed licensee procedures and discussed potential compensatory measures with control room personnel. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response would be available. The inspectors conducted a site walkdown including walkdowns of various plant structures and systems to check for maintenance or other apparent deficiencies that could affect system operations during the predicted significant weather. The inspectors also reviewed corrective action program (CAP) items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures. Documents reviewed are listed in the Attachment to this report.

These reviews by the inspectors constituted a single readiness for impending adverse weather condition inspection 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 Alignment Verifications

a. Inspection Scope

The inspectors performed partial system physical alignment verifications of the following risk-significant systems:

- Containment Spray Train No. 2 during the period when Containment Spray Train No. 1 was out of service for planned maintenance during the week ending January 10, 2015;
- Low Pressure Injection (LPI) Train No. 1 during the period when LPI Train No. 2 was out of service for planned maintenance during the week ending January 31, 2015; and
- High Pressure Injection (HPI) Train No. 2 during the period when HPI Train No. 1 was out of service for planned maintenance during the week ending February 14, 2015.

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, Updated Safety Analysis Report (USAR), technical specification (TS) requirements, outstanding work orders (WOs), condition reports (CRs), 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 CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities by the inspectors constituted three partial system alignment verification inspection samples as defined in IP 71111.04–05.

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Alignment Verification

a. Inspection Scope

During the period from March 16, 2015, through March 31, 2015, the inspectors performed a complete system alignment inspection of the station's two emergency diesel generators (EDGs) to verify the functional capabilities of the site's emergency alternating current (AC) power system. This equipment was selected because the EDGs are considered both important to safety and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the EDGs 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 licensee's 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 a single annual complete system alignment verification inspection sample as defined in IP 71111.04–05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Protection Zone Inspections

a. Inspection Scope

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

- Main and motor-driven feedwater pump room; Turbine Building Elevation 565' (Room 252–Fire Area II) during the period of March 30–31, 2015;
- Hydrogen and nitrogen storage tank construction work area west of the Auxiliary Building; Elevation 585' during the period of March 30–31, 2015;
- Service water pump room; Intake Structure Elevation 576' (Room 52–Fire Area BF) during the period of March 30–31, 2015; and
- Emergency core cooling system (ECCS) pump room 1–1; Auxiliary Building Elevation 555' (Room 105–Fire Area AB) during the period of March 30–31, 2015.

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. 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 zone inspection tour samples as defined in IP 71111.05–05.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation

a. Inspection Scope

During the early morning hours on March 20, 2015, the inspectors observed the licensee's fire brigade respond to a simulated Class 'C' electrical fire on the 603' elevation of the station's turbine building. Based on their observations, the inspectors evaluated the readiness of the station's fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner during the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

- The proper wearing of turnout gear and self-contained breathing apparatus;
- The proper use and layout of fire hoses;
- The employment of appropriate firefighting techniques;
- That sufficient firefighting equipment was brought to the scene;
- The effectiveness of fire brigade leader communications, as well as command and control;
- The search for victims and propagation of the fire into other plant areas;
- Smoke removal operations;
- The utilization of pre-planned strategies;
- The adherence to the pre-planned drill scenario; and
- The satisfactory completion of the drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted a single annual fire protection drill inspection sample as defined in IP 71111.05–05.

b. Findings

No findings were identified.

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of ECCS Room Cooler No. 1 heat exchanger to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing

conditions. Documents reviewed for this inspection are listed in the Attachment to this document.

The inspectors' reviews in this area constituted a single annual heat sink performance inspection sample as defined in IP 71111.07–05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Simulator Training

a. Inspection Scope

On February 3, 2015, the inspectors observed a crew of licensed operators in the plant's simulator during the performance of an unannounced graded crew simulator casualty drill scenario. The inspectors verified that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and that training was being conducted in accordance with licensee procedures. In addition, the inspectors verified that the licensee's personnel were observing NRC examination security protocols to ensure that the integrity of the scenarios was being protected from being compromised. The inspectors evaluated the following areas:

- Licensed operator performance;
- The clarity and formality of communications;
- The ability of the crew to take timely and conservative actions;
- The crew's prioritization, interpretation, and verification of annunciator alarms;
- The correct use and implementation of abnormal and emergency procedures by the crew;
- Control board manipulations;
- The oversight and direction provided by licensed Senior Reactor Operators (SROs); and
- The ability of the crew 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.

These observations and activities by the inspectors constituted a single quarterly licensed operator requalification program simulator training inspection sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Operator Activities in the Control Room and in the Plant

a. Inspection Scope

During the course of the inspection period, the inspectors performed numerous observations of operator performance in the plant's control room and in the plant to verify that operator performance was adequate and that plant evolutions were being conducted in accordance with approved plant procedures. Specific activities observed that involved a heightened tempo of activities or periods of elevated risk included, but were not limited to:

- Scheduled reactor protection system (RPS) control rod drive (CRD) trip breaker testing and associated unit power maneuvers during the week ending January 24, 2015;
- Actions taken by the on-shift crew in response to malfunctions of the unit load demand load control station computer on the main control board during the week ending January 24, 2015;
- Delta temperature cold (Tc) control system adjustments to support operating steam generator level control during the week ending February 14, 2015;
- Periodic CRD mechanism testing and associated unit power maneuvers during the week ending March 7, 2015; and
- Main turbine valve testing and crew response to Turbine Stop Valve No. 4 testing issues during the weeks ending March 7, 2015, and March 21, 2015.

The inspectors evaluated the following areas during the course of the control room and in-plant observations:

- Licensed operator performance;
- The clarity and formality of communications;
- The ability of the crew to take timely and conservative actions;
- The crew's prioritization, interpretation, and verification of annunciator alarms;
- The correct use and implementation of normal operating, annunciator alarm response, and abnormal operating procedures by the crew;
- Control board manipulations;
- The oversight and direction provided by on-watch SROs and plant management personnel; and
- The ability of the crew to identify and implement appropriate TS 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.

These observation activities by the inspectors of operator performance in the station's control room and in the plant constituted a single quarterly inspection sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.3 Biennial Review

a. Inspection Scope

The following inspection activities were conducted during the week of January 19, 2015, to assess licensee conformance with both 10 CFR Part 55, Subpart c, *Medical Requirements*; 10 CFR 55.53, *Conditions of Licenses*; and allow closure of unresolved item (URI) 05000346/2014005-01, *Additional Review of Medical Records Needed*:

- The inspectors reviewed the facility licensee's program for maintaining documentation required to comply with 10 CFR 55.23; and
- The inspectors reviewed the medical records for all licensed operators to assess compliance with 10 CFR 55.53(i) and (l). (03.08)

The documents reviewed are listed in the Attachment to this report.

As discussed above, these reviews by the inspectors were a follow-on activity to facilitate closure of URI 05000346/2014005-01, and as such they did not constitute a Biennial Licensed Operator Requalification Program inspection sample as defined in IP 71111.11–05.

b. Findings

(Closed) Unresolved Item 05000346/2014005–01: Additional Review of Medical Records Needed

As documented in NRC IR 05000346/2014005 (ADAMS Accession No. ML15028A034), the inspectors reviewed a sample of the licensed operator medical records for compliance with 10 CFR Part 55 as a part of the periodic NRC IP 71111.11B inspection during the week ending December 13, 2014. The inspectors determined that 2 of 12 records reviewed (approximately 17 percent) had apparent discrepancies which potentially affect the conditions required as part of a licensed operator's license to maintain medical qualification. The inspectors noted that the medical records were difficult to review due to a lack of succinct filing within the records themselves. The inspectors identified an URI concerning the auditable condition of the medical records and completeness of information retained. Further inspection and review of the medical records were required to ascertain the level of the discrepancy, and to determine if a potential non-compliance condition existed.

During the week ending January 24, 2015, the inspectors performed follow-up inspection activities to disposition the previously identified URI concerning the auditable condition of the licensed operators' medical records. The facility licensee had performed an audit of all licensed operator medical records to consolidate retained NRC correspondence and supporting documentation required as part of the operator's docket file. The inspectors reviewed the medical records for all of the facility's licensed operators. The inspectors did not identify any deficiencies in the medical record information that: (1) indicated a licensed operator was currently performing licensed duties while in noncompliance with all conditions of the license; or (2) indicated a licensed operator required any additional conditions be placed on the license based upon current medical conditions. However, the inspectors did note that the NRC had not been updated in a timely manner with a medication that had changed for several operators. The reason for this failure of the

timely notification was that the licensed operators had not notified the licensee's medical staff in a timely manner. In September 2014, the licensee initiated CR 2014–13639 to focus on the trend of operators not notifying the licensee's medical staff of changes in health conditions that may affect the performance of licensed duties, as required by facility procedures. The inspectors reviewed multiple CRs that had been written by the medical staff concerning this issue. The inspectors discussed this issue with the applicable licensee management personnel, who indicated that they were aware of the significance of the issue and were working with their staff to attempt to correct this problem. Since no additional issues with the medical record review were identified, the inspectors determined that URI 05000346/2014005–01, *Additional Review of Medical Records Needed*, does not require any further action and no findings were identified. This URI is closed.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations

a. Inspection Scope

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

- The station's main exhaust ventilation system sample flow;
- The station's steam generator level instrumentation, with particular emphasis on the operating range level; and
- The performance of underground piping and tanks, with particular emphasis on those components and systems that potentially could result in the release of tritium to the environment.

The inspectors reviewed events such as where ineffective equipment maintenance could result in or had resulted in valid or invalid automatic actuations or system transients 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 systems, structures, and components (SSC)/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.

The inspectors' reviews constituted three quarterly maintenance effectiveness inspection 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:

- Scheduled work activities to repair and test containment isolation valve (CIV) RC–240A in containment with the unit operating at power during the week ending March 7, 2015; and
- Issues involving the at-power testing and test circuitry for the main turbine steam valves during the weeks ending March 7, 2015, through March 21, 2015; and
- Scheduled maintenance work on the station's motor-driven feed pump during the week ending March 28, 2015.

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. Specific documents reviewed during this inspection are listed in the Attachment to this report.

The inspectors' review of these maintenance risk assessments and emergent work control activities constituted three inspection 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:

- Operability of the plant's ultimate heat sink following the restoration and removal of excessive silt buildup during routine surveillance monitoring of the safety-related intake canal depth, as documented in CR 2014–15167, during the period of January 12, 2015, through January 31, 2015;
- Operability and functionality of reactor protection system channel No. 4 with the overpower trip bistable out of tolerance, as documented in CR 2015–00047, during the period of January 19, 2015 through February 14, 2015;
- Operability and functionality of steam generator operate-range level instrumentation following identification of instrument uncertainty not being applied, as documented in CR 2015–01595, during the period of February 9, 2015 through February 21, 2015; and
- Operability and functionality of auxiliary feedwater train No. 1 with an error code indicated on level indicating controller No. 6452, the control room flow controller for that train, as documented in CR 2015–04127, during the week ending March 28, 2015.

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 USAR 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 verified, where applicable, that the bounding limitations of the evaluations were valid. 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.

The review of these issues by the inspectors constituted four inspection samples as defined in IP 71111.15–05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Permanent Plant Modification

a. Inspection Scope

The inspectors reviewed the following change to the facility:

- Engineering Change Package (ECP) No. 14–0376–010: "Change Integrated Control System High Level Limit from 92 percent to 93.5 percent."

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation documents against the design basis, the USAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of

any safety-related systems, or systems important to safety. The inspectors observed ongoing and completed work activities to ensure that the modification was installed as directed and consistent with the design control documents; that the modification operated as expected; and that operation of the modification did not impact the operability of any interfacing systems. The inspectors verified that relevant procedure, design, and licensing documents were properly updated. Finally, the inspectors discussed the plant modification with operations, engineering, and training department personnel to ensure that the individuals were aware of how the operation with the modification in place could impact overall plant performance. Documents reviewed in the course of this inspection are listed in the Attachment to this report.

The inspectors' review of this permanent plant modification constituted a single inspection sample as defined in IP 71111.18–05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Quarterly Resident Inspector Observation and Review of Post-Maintenance Testing Activities

a. Inspection Scope

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

- Operational and functional testing of reactor trip breaker 'A' following planned and scheduled breaker replacement during the week ending January 24, 2015;
- Operational and functional testing of LPI train No. 2 following planned maintenance during the week ending January 31, 2015;
- Operational and functional testing of EDG No. 1 following planned maintenance during the week ending February 14, 2015;
- Operational and functional testing of ECCS Room Cooler No. 1 following planned maintenance during the week ending February 21, 2015; and
- Operational and functional testing of CIV RC-240A following repairs during the week ending March 7, 2015.

These activities were selected based upon the SSC'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 USAR, 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 the PMTs 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.

The inspectors' reviews of these activities constituted five PMT inspection samples as defined in IP 71111.19–05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the results for the following testing 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:

- Biennial testing of remote shutdown system transfer switches and control circuits for essential 4160 volt bus C1 and essential 480 volt bus E1 during the week ending January 17, 2015 (Routine);
- Monthly testing of EDG No. 2 during the week ending January 31, 2015 (Routine);
- Periodic CRD mechanism exercise testing during the week ending March 7, 2015 (Routine);
- Periodic main turbine stop valve closure time testing during the week ending March 21, 2015 (Routine); and
- Local leak rate testing of CIV RC–240A following replacement of the actuator stem nut during the week ending March 7, 2015 (CIV).

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 USAR, procedures, and applicable commitments;
- That measuring and test equipment calibration was current;
- That test equipment was used within the required range and accuracy;
- That applicable prerequisites described in the test procedures were satisfied;

- That 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;
- That test data and results were accurate, complete, within limits, and valid;
- That 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, that 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, that reference setting data were accurately incorporated in the test procedure;
- Where applicable, that actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- That prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- That equipment was returned to a position or status required to support the performance of its safety functions; and
- That all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

These activities conducted by the inspectors constituted four routine surveillance testing inspection samples and a single CIV local leak rate testing sample as defined in IP 71111.22, Sections–02 and–05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observations

a. Inspection Scope

The inspectors evaluated the conduct of the following planned licensee emergency drills:

- A full scale integrated emergency preparedness (EP) drill conducted on February 24, 2015; and
- A full scale dry run EP drill conducted on March 24, 2015, in preparation for the licensee's graded biennial EP exercise planned for May of 2015.

The inspectors observed emergency response operations in the Emergency Operations Facility and the backup/alternate Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were

performed in accordance with procedures, and to identify any weaknesses or deficiencies in classification, notification, or protective action recommendation development activities. The inspectors also attended the licensee drill critique to compare any inspector-observed weaknesses with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of their inspection activities, the inspectors reviewed the drill packages for each scenario and other documents listed in the Attachment to this report.

The inspectors' reviews of these EP drill scenarios and other related activities constituted two inspection samples as defined in IP 71114.06–06.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

The activities documented in this section constituted a single complete radioactive gaseous and liquid effluent treatment inspection sample as defined in IP 71124.06–05.

.1 Inspection Planning and Program Reviews (02.01)

Event Report and Effluent Report Reviews

a. Inspection Scope

The inspectors reviewed the radiological effluent release reports issued since the last inspection to determine if the reports were submitted as required by the Offsite Dose Calculation Manual (ODCM)/TSs. The inspectors reviewed anomalous results, unexpected trends, or abnormal releases identified by the licensee for further inspection to determine if they were evaluated, were entered in the CAP, and were adequately resolved.

The inspectors selected radioactive effluent monitor operability issues reported by the licensee as provided in effluent release reports, to review these issues during the onsite inspection, as warranted, given their relative significance and determine if the issues were entered into the CAP, and adequately resolved.

b. Findings

No findings were identified.

Offsite Dose Calculation Manual and Final Safety Analysis Report Review

Inspection Scope

The inspectors reviewed USAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths so they could be evaluated during inspection walkdowns.

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection against the guidance in NUREGs 1301, 1302, and 0133, and Regulatory Guides (RGs) 1.109, 1.21, and 4.1. When differences were identified, the inspectors reviewed the technical basis, or evaluations of the change, during the onsite inspection to determine whether they were technically justified, and maintain effluent releases as-low-as-reasonably-achievable.

The inspectors reviewed licensee documentation to determine if the licensee had identified any non-radioactive systems that have become contaminated as disclosed either through an event report or the ODCM since the last inspection. This review provided an intelligent sample list for the onsite inspection of any 10 CFR 50.59 evaluations, and allowed a determination if any newly contaminated systems have an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways, and whether the associated effluents were reported in accordance with RG 1.21.

Findings

No findings were identified.

Groundwater Protection Initiative Program

Inspection Scope

The inspectors reviewed reported groundwater monitoring results and changes to the licensee's written program for identifying and controlling contaminated spills/leaks to groundwater.

Findings

No findings were identified.

Procedures, Special Reports, and Other Documents

Inspection Scope

The inspectors reviewed Licensee Event Reports (LERs), event reports and/or special reports related to the effluent program issued since the previous inspection to identify any additional focus areas for the inspection based on the scope/breadth of problems described in these reports.

The inspectors reviewed the effluent program implementing procedures, particularly those associated with effluent sampling, effluent monitor set-point determinations, and dose calculations.

The inspectors reviewed copies of licensee and third party (independent) evaluation reports of the effluent monitoring program since the last inspection to gather insights into the licensee's program and aid in selecting areas for inspection review (smart sampling).

Findings

No findings were identified.

.2 Walkdowns and Observations (02.02)

a. Inspection Scope

The inspectors walked down selected components of the gaseous and liquid discharge systems to evaluate whether equipment configuration, and flow paths align with the documents reviewed in 02.01 above, and to assess equipment material condition. Special attention was made to identify potential unmonitored release points (such as temporary structures butted against turbine, auxiliary or containment buildings), building alterations which could impact airborne, or liquid effluent controls, and ventilation system leakage that communicate directly with the environment.

For equipment or areas associated with the systems selected for review that were not readily accessible due to radiological conditions, the inspectors reviewed the licensee's material condition surveillance records, as applicable.

The inspectors walked down filtered ventilation systems to assess for conditions such as degraded high-efficiency particulate air /charcoal banks, improper alignment, or system installation issues that would impact the performance or the effluent monitoring capability of the effluent system.

As available, the inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent (including sample collection and analysis) to evaluate whether appropriate treatment equipment was used and the processing activities align with discharge permits.

The inspectors determined if the licensee has made significant changes to their effluent release points (e.g., changes subject to a 10 CFR 50.59 review or require NRC approval of alternate discharge points).

As available, the inspectors observed selected portions of the routine processing and discharging of liquid waste (including sample collection and analysis) to determine if appropriate effluent treatment equipment is being used, and that radioactive liquid waste is being processed and discharged in accordance with procedure requirements and aligns with discharge permits.

b. Findings

No findings were identified.

.3 Sampling and Analyses (02.03)

a. Inspection Scope

The inspectors selected effluent sampling activities, consistent with smart sampling, and assessed whether adequate controls have been implemented to ensure representative samples were obtained (e.g., provisions for sample line flushing, vessel recirculation, composite samplers, etc.).

The inspectors selected effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors to assess whether controls were in place to ensure compensatory sampling was performed consistent with the radiological effluent ODCM/TSs, and that those controls were adequate to prevent the release of unmonitored liquid and gaseous effluents.

The inspectors determined whether the facility was routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

The inspectors reviewed the results of the inter-laboratory comparison program to evaluate the quality of the radioactive effluent sample analyses, and assessed whether the inter-laboratory comparison program includes hard-to-detect isotopes as appropriate.

b. Findings

No findings were identified.

.4 Instrumentation and Equipment (02.04)

Effluent Flow Measuring Instruments

a. Inspection Scope

The inspectors reviewed the methodology the licensee uses to determine the effluent stack and vent flow rates to determine if the flow rates were consistent with radiological effluent ODCM/TSs or USAR values, and that the differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

b. Findings

No findings were identified.

Air Cleaning Systems

Inspection Scope

The inspectors assessed whether surveillance test results since the previous inspection for TS required ventilation effluent discharge systems (high-efficiency particulate air and charcoal filtration), such as the containment/auxiliary building ventilation system, met TS acceptance criteria.

Findings

No findings were identified.

.5 Dose Calculations (02.05)

a. Inspection Scope

The inspectors reviewed all significant changes in reported dose values compared to the previous radiological effluent release report (e.g., a factor of five, or increases that approach Appendix I criteria) to evaluate the factors which may have resulted in the change.

The inspectors reviewed radioactive liquid and gaseous waste discharge permits to assess whether the projected doses to members of the public were accurate, and based on representative samples of the discharge path.

The inspectors evaluated the methods used to determine the isotopes that are included in the source term to ensure all applicable radionuclides are included within detectability standards. The review included the current Part 61 analyses to ensure hard-to-detect radionuclides are included in the source term.

The inspectors reviewed changes in the licensee's offsite dose calculations since the last inspection to evaluate whether changes were consistent with the ODCM and RG 1.109. The inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to evaluate whether appropriate factors were being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to assess whether changes (e.g., significant increases or decreases to population in the plant environs, changes in critical exposure pathways, the location of nearest member of the public or critical receptor, etc.) have been factored into the dose calculations.

For the releases reviewed above, the inspectors evaluated whether the calculated doses (monthly, quarterly, and annual dose) are within the 10 CFR Part 50, Appendix I, and TS dose criteria.

The inspectors reviewed, as available, records of any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc.) to ensure the abnormal discharge was monitored by the discharge point effluent monitor. Discharges made with inoperable effluent radiation monitors, or unmonitored leakages were reviewed to ensure that an evaluation was made of the discharge to satisfy 10 CFR 20.1501 so as to account for the source term and projected doses to the public.

b. Findings

No findings were identified.

.6 Groundwater Protection Initiative Implementation (02.06)

a. Inspection Scope

The inspectors reviewed monitoring results of the groundwater protection initiative to determine if the licensee had implemented its program as intended and to identify any anomalous results. For anomalous results or missed samples, the inspectors assessed whether the licensee had identified and addressed deficiencies through its CAP.

The inspectors reviewed identified leakage or spill events and entries made into 10 CFR 50.75 (g) records. The inspectors reviewed evaluations of leaks or spills and reviewed any remediation actions taken for effectiveness. The inspectors reviewed onsite contamination events involving contamination of ground water and assessed whether the source of the leak or spill was identified and mitigated.

For unmonitored spills, leaks, or unexpected liquid or gaseous discharges, the inspectors assessed whether an evaluation was performed to determine the type and amount of radioactive material that was discharged by:

- Assessing whether sufficient radiological surveys were performed to evaluate the extent of the contamination and the radiological source term and assessing whether a survey/evaluation had been performed to include consideration of hard-to-detect radionuclides; and
- Determining whether the licensee completed offsite notifications, as provided in its Groundwater Protection Initiative implementing procedures.

The inspectors reviewed the evaluation of discharges from onsite surface water bodies that contain or potentially contain radioactivity, and the potential for ground water leakage from these onsite surface water bodies. The inspectors assessed whether the licensee was properly accounting for discharges from these surface water bodies as part of their effluent release reports.

The inspectors assessed whether on-site ground water sample results and a description of any significant on-site leaks/spills into ground water for each calendar year were documented in the annual radiological environmental operating report for the radiological environmental monitoring program or the annual radiological effluent release report for the radiological effluent TSs.

For significant, new effluent discharge points (such as significant or continuing leakage to ground water that continues to impact the environment if not remediated), the inspectors evaluated whether the ODCM was updated to include the new release point.

b. Findings

No findings were identified.

.7 Problem Identification and Resolution (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with the effluent monitoring and control program were being identified by the licensee at an appropriate threshold and

were properly addressed for resolution in the licensee CAP. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

.1 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours Performance Indicator (PI) for the period from January 2014 to December 2014. 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 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operations narrative logs, CRs, event reports and NRC integrated IRs for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator. Documents reviewed are listed in the Attachment to this report.

These reviews by the inspectors constituted a single unplanned scrams per 7000 critical hours inspection sample as defined in IP 71151–05.

b. Findings

No findings were identified.

.2 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications PI for the period from January 2014 to December 2014. 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 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, CRs, event reports and NRC integrated IRs for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator. Documents reviewed are listed in the Attachment to this report.

These reviews by the inspectors constituted a single unplanned scrams with complications inspection sample as defined in IP 71151–05.

b. Findings

No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for the period from January 2014 through December 2014. 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 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, CRs, maintenance rule records, event reports and NRC integrated IRs for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP to determine if any problems had been identified with the PI data collected or transmitted for this indicator. Documents reviewed are listed in the Attachment to this report.

These reviews by the inspectors constituted a single unplanned transients per 7000 critical hours inspection 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 CR 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.

.3 Follow-Up Sample for In-Depth Review: Review of Medical Items Entered into the Corrective Action Program for Operator Licensing

a. Inspection Scope

The inspectors performed a review of documents in the licensee's CAP related to medical issues associated with licensed operators for the previous two-year period. Identified CRs were compared to the medical records and documentation sent to the NRC to access implementation of the licensee's CAP process for initiating and submitting CRs focused on licensed operator medical conditions and reporting identified changes in those medical conditions to the licensee's applicable health services personnel.

This review by the inspectors constituted a single in-depth problem identification and resolution inspection sample as defined in IP 71152–05.

Observations

The inspectors noted that the licensee had identified a trend with licensed operators not notifying the medical staff of changes in health conditions as soon as issues were identified. Per the facility licensee's procedure, changes in medication for licensed operators who had a license condition to take medications as prescribed to maintain their medical qualifications must be reported to the applicable licensee health services personnel prior to performing licensed duties. The inspectors noted that failures to notify the medical staff had resulted in the NRC not being updated in a timely manner concerning a medication that had changed for several operators.

The untimely notification of the licensee's medical staff of changes in medical conditions had been an identified by the licensee as a trend. In September 2014, the licensee initiated CR 2014–13639 to focus on the trend of operators not notifying the medical staff of changes in health conditions which could have affected the performance of licensed duties, as required by facility procedures. The inspectors reviewed multiple CRs that had been written by the medical staff concerning this issue. The inspectors discussed this issue with members of the licensee's management team, who indicated that they were aware of the significance of the issue and were working with their staff to attempt to correct this problem.

The CRs, although somewhat vague, were accurate for the medical conditions. The information sent to the NRC contained all of the recent documentation from the licensee's medical review officer and the individual's personal physician. In summation, the inspectors concluded that:

- There was no indication of any attempt to omit pertinent information on the part of the facility licensee;
- The relevant communications in this area between the licensee's medical staff and the licensee's regulatory compliance personnel could be improved;
- The CRs that were written by the licensee's medical staff were discussed and reviewed by the manager of their department prior to being submitted to the system;
- Because of the personal medical nature of the information, the CRs had to be carefully worded; and
- If there were any questions about the wording of the CR, the licensee's regulatory compliance personnel were contacted.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 Fall 2014 Groundwater Sampling Results

a. Inspection Scope

The inspectors reviewed the results of groundwater samples taken from wells in the plant owner-controlled area. The sampling of wells was completed as part of the licensee's voluntary groundwater monitoring initiative. A sample taken during the licensee's autumn 2014 routine periodic monitoring for a well located outside the northwest corner of the turbine building and designated MW–37S contained approximately 3,230 picocuries per liter (pCi/L) of tritium. Sample results above the 2,000 pCi/L groundwater monitoring program threshold require making courtesy notifications to state and local government officials and the NRC resident inspectors. These courtesy notifications were performed by the licensee on January 7, 2015 in accordance with their programmatic requirements after the laboratory results for the fall 2014 samples had been received and reviewed by station personnel. The formal reporting limit threshold is 30,000 pCi/L, as documented in the licensee's ODCM.

The licensee continues to investigate and monitor wells in accordance with their groundwater monitoring program. The inspectors reviewed the licensee's compliance with their stated offsite agency reporting requirements.

These routine reviews for samples to detect tritium in groundwater did not constitute any additional inspection samples. Instead, they were considered as part of the inspectors' daily plant status monitoring activities.

b. Findings

No findings were identified.

.2 Winter 2015 Groundwater Sampling Results

a. Inspection Scope

The inspectors reviewed the results of a series of expanded groundwater samples taken from wells in the plant owner-controlled area. The sampling of wells was completed as part of the licensee's voluntary groundwater monitoring initiative and in response to the results obtained earlier, as discussed in Section 4OA5.1 above. Several of the monitoring well locations sampled as part of the licensee's ongoing investigations indicated tritium levels above the 2,000 pCi/L groundwater monitoring program threshold requiring courtesy notifications to state and local government officials and the NRC resident inspectors. The highest tritium concentration, approximately 10,527 pCi/L from a sample obtained on February 10, 2015, was located in a monitoring well, designated MW–22S, on the west side of the plant near the borated water storage tank.

The licensee continues to investigate and monitor wells in accordance with their groundwater monitoring program. The inspectors reviewed the licensee's compliance with their stated offsite agency reporting requirements.

These routine reviews for samples to detect tritium in groundwater did not constitute any additional inspection samples. Instead, they were considered as part of the inspectors' daily plant status monitoring activities.

b. Findings

No findings were identified.

.3 Operation of an Independent Spent Fuel Storage Installation

a. Inspection Scope

The inspectors conducted document reviews, held discussions with licensee staff, and performed a walkdown of the Independent Spent Fuel Storage Installation (ISFSI) to assess compliance with the ISFSI Certificate of Compliance, TS, and the USAR.

The inspectors performed a walkdown and evaluated the condition of the spent fuel horizontal storage modules (HSMs) and ISFSI pad. The inspectors reviewed the licensee's last structural inspection of the ISFSI pad and HSMs. The inspectors observed the licensee perform routine surveillance activities, including inspections of the

vent screens and taking thermocouple readings. The inspectors reviewed the licensee's associated completed procedures for routine surveillance.

Plant procedures were reviewed to determine whether the licensee had adequate controls in place to monitor the radiation dose resulting from the operation of the ISFSI. The inspectors reviewed several routine radiation surveys performed by the licensee around the pad. The inspectors determined if the site had an unloading procedure and reviewed the control of transient combustible material procedure and contingency procedure.

Condition reports, and the associated follow up actions, were reviewed to assess the adequacy and timeliness of the licensee's corrective actions. The inspectors reviewed quality assurance audits associated with the ISFSI. A number of 10 CFR 72.48 screenings were reviewed for compliance with the 72.212 report, Certificate of Compliance, TS, and the USAR.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On April 9, 2015, the inspectors presented the inspection results to the Site Vice President, Mr. R. Lieb, 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. Proprietary material received and reviewed during the inspection was returned to the licensee.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The inspection results for the routine periodic radiation protection inspection items documented in Section 2 of this report with the Site Vice President, Mr. R. Lieb, and other members of the licensee staff on March 16, 2015; and
- The results of the ISFSI operational inspection with the Director of Site Operations, Mr. T. Summers, and other members of the licensee staff on February 19, 2015.

The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received and reviewed during the inspection was returned to the licensee.

4OA7 Licensee-Identified Violations

The following violation of very low significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section 2.3.2 of the NRC Enforcement Policy for being dispositioned as an NCV.

.1 Failure to Properly Perform Required Fire Watch

Plant TS 5.4.1(d), requires, in part, the licensee to establish, implement, and maintain applicable written procedures covering fire protection program implementation. The fire protection program was implemented, in part, by Davis-Besse Procedure DB–FP–00009, "Fire Protection Impairment and Fire Watch," Revision 20. Procedure DB–FP–00009, Step 6.3.4, states: "Roving Fire Watches shall observe the assigned patrol area(s)/room(s)/panel(s) which is (are) to be observed as related to the impairment, for example, room associated with impaired door, damper, penetration seal, detector, etc." Contrary to this requirement, for several hours on February 16, 2015, the licensee failed to observe the interior of Room 425, the Radiation Protection (RP) Instrument Calibration Room, when an applicable fire impairment had existed.

Late in the morning on February 16th, plant maintenance technicians began a planned work activity to replace 27 smoke detectors in Fire Detection Zone 412A. To compensate for this planned loss of fire detection capability, the licensee's fire protection program required an hourly fire watch patrol to be performed for each of the 17 rooms covered by Fire Detection Zone 412A. This hourly fire watch patrol was instituted by the on-watch Operations crew at 12:00 p.m., and assigned to a member of the site's Security Department, as was the standard station practice. Because the door to Room 425 was locked, however, the individual performing the hourly fire watch patrol did not enter Room 425, as required, and only checked the door to the room. This practice was repeated again at 2:00 p.m., and continued hourly by each individual who performed the fire watch patrol until 8:00 p.m. At that time, the individual performing the hourly fire watch patrol raised a question about the locked door to Room 425 to the Operations supervisors who were on watch, and it was confirmed that the room needed to be entered to adequately perform the fire watch patrol. A key for Room 425 was obtained from RP, and the fire watch patrol performed correctly from that point on.

The inspectors reviewed this violation using the guidance contained in Appendix B, "Issue Screening," of IMC 0612, "Power Reactor Inspection Reports." The inspectors determined that the licensee's failure to properly implement plant procedures for performing compensatory fire watches was a performance deficiency that was reasonably within the licensee's ability to foresee and correct and should have been prevented. This violation was associated with the Initiating Events cornerstone of reactor safety and was of more than minor significance because it was associated with the Initiating Events cornerstone attribute of Protection Against External Factors (Fire) and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during plant operations. Specifically, required fire watch patrols established as compensatory measures should have been properly performed for the duration of the impairment so that the site's ability to promptly detect and suppress a fire would be maintained.

The inspectors evaluated the violation using IMC 0609, Attachment 4, "Phase 1–Initial Screening and Characterization of Findings." Because it involved fire protection, the inspectors transitioned to IMC 0609, Appendix F, "Fire Protection Significant Determination Process (SDP)." The violation was characterized according to IMC 0609, SDP, Appendix F, Attachment 1, "Fire Protection SDP Phase 1 Worksheet," dated September 20, 2013. The violation screened as of very low safety significance (Green), per Attachment 1, Question 1.3.1.A, because it did not affect the ability of the reactor to reach and maintain safe shutdown.

The licensee had entered this issue into their CAP as CRs 2015–02119, 2015–02126, 2015–04246, and 2015–04248. A limited apparent cause evaluation was performed and corrective actions included, but were not limited to:

- Creation of a formal pre-job brief check list for fire watch patrols to be used and maintained at the Work Support Center desk for ready reference, and maps for multiple room fire watch patrols; and
- Communication of lessons learned, identification and discussion of knowledge gaps and reinforcement of the site's human performance tools with respect to fire watch patrol expectations.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Lieb, Site Vice President
K. Byrd, Director, Site Engineering
G. Cramer, Manager, Site Protection
J. Cuff, Manager, Training
J. Cunnings, Manager, Site Maintenance
A. Dawson, Manager, Chemistry
D. Dibert, Reactor Engineer, Plant Engineering
D. Hartnett, Superintendent, Operations Training
J. Hook, Manager, Design Engineering
M. Hoffman, Access Authorization Supervisor
D. Imlay, Director, Site Performance Improvement
G. Kendrick, Manager, Site Outage Management
B. Kremer, Manager, Site Operations
G. Laird, Manager, Technical Services Engineering
B. Matty, Manager, Plant Engineering
P. McCloskey, Manager, Site Regulatory Compliance
D. Noble, Manager, Radiation Protection
W. O'Malley, Manager, Nuclear Oversight
R. Oesterle, Superintendent, Nuclear Operations
R. Patrick, Manager, Site Work Management
M. Roelant, Manager, Site Projects
D. Saltz, Director, Site Maintenance
J. Sturdavant, Regulatory Compliance
T. Summers, Director, Site Operations
L. Thomas, Manager, Nuclear Supply Chain
M. Travis, Superintendent, Radiation Protection
J. Vetter, Manager, Emergency Response
G. Wolf, Supervisor, Regulatory Compliance
K. Zellers, Supervisor, Reactor Engineering

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

05000346/2014005–01	URI	Additional Review of Medical Records Needed (Section 1R11.3)

Discussed

None

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

Procedures:
- RA-EP-02870; Station Isolation; Revision 5

1R04 Equipment Alignment

Condition Reports
- 2014-10537; No. 2 EDG Has Oil Leak on Governor Casing
- 2014-14733; EDG 1 – Cylinder Head to Liner Gasket Area Conditions of Refurbished Power Packs
- 2014-17673; BACC HP2B
- 2014-18229; BACC – CS19 Packing Leak
- 2015-03223; EDG Air Compressor 3 Loose Bracket on Aftercooler
- 2015-03235; Minor Leaks on Cylinders Nos. 11 and 13 During Monthly Run

Drawings:
- ISID2-033B; Decay Heat Train 1; Revision 16
- M-017A; Diesel Generators; Revision 19
- M-017B; Diesel Generators Air Start; Revision 47
- M-017C; Fuel Oil; Revision 30
- M-033A; High Pressure Injection; Revision 44
- M-033B; Decay Heat Train 1; Revision 56
- M-033C; Decay Heat Train 2; Revision 27
- M-034; Emergency Core Cooling System Containment Spray & Core Flooding Systems; Revision 69
- OS-003; High Pressure Injection System; Revision 36
- OS-004; Sheet 1; Decay Heat Removal / Low Pressure Injection System; Revision 52
- OS-004; Sheet 2; Decay Heat Removal / Low Pressure Injection System; Revision 7
- OS-005; Containment Spray System; Revision 13
- OS-0041A; Sheet 1; Emergency Diesel Generator Systems; Revision 32
- OS-0041A; Sheet 2; Emergency Diesel Generator Systems; Revision 32
- OS-0041B; Emergency Diesel Generator Air Start / Engine Air System; Revision 42
- OS-0041C; Emergency Diesel Generator Diesel Oil System; Revision 16

Procedures:
- DB-OP-06011; High Pressure Injection System; Revision 29
- DB-OP-06012; Decay Heat and Low Pressure Injection System Operating Procedure; Revision 62
- DB-OP-06013; Containment Spray System; Revision 25
- DB-OP-06316; Diesel Generator Operating Procedure; Revision 57

1R05 Fire Protection

Condition Reports:
- 2015-00170; Fire Extinguisher Was Not at Job Site While Performing Hot Work
- 2015-02119; Fire Watch Missed Opportunities
- 2015-02126; Missed Fire Watch for Room 425
- 2015-04246; Inaccurate Information Discovered in Apparent Limited Cause Evaluation of 2015-02126
- 2015-04248; Fire Watch Improvement Opportunities

Procedures:
- DB-FP-00005; Fire Brigade; Revision 8
- DB-FP-00007; Control of Transient Combustibles; Revision 13
- DB-FP-00009; Fire Protection Impairment and Fire Watch; Revision 20
- DB-FP-00018; Control of Ignition Sources; Revision 12

Pre-Fire Plans:
- PFP-AB-105; ECCS Pump Room 1-1, Room 105, Fire Area AB; Revision 8
- PFP-IS-52; Service Water Pump Room, Room 52, Fire Area BF; Revision 3
- PFP-TB-252; Main Feedwater Pump Room (West Condenser Pit), Room 252, Fire Area II; Revision 5
- PFP-TB-430; Heater Bay Area, Room 430, Fire Area II; Revision 4
- PFP-TB-431; Turbine Area, Room 431, Fire Area II; Revision 5

Drawings:
- A-0221F; Fire Protection General Floor Plan, Elevation 545’-0” and 555’-0”; Revision 9
- A-0222F; Fire Protection General Floor Plan, Elevation 565'-0"; Revision 17
- A-0230F; Fire Protection Intake Structure; Revision 9

Other:
- Fire Hazard Analysis Report; Revision 26

1R07 Heat Sink Performance

Condition Reports:
- 2012-03201; ECCS Cooler 1 Has Low Flow
- 2012-03836; Gasket that Divides the Supply and Return Side Found Out of Position
- 2013-12378; ECCS Room Cooler 1 Flow Beginning to Trend Low
- 2013-00146; ECCS Room Cooler 1, E42-1, Failed its Quarterly Monitoring Test, DB-PF-04736
- 2014-09872; Work on E12E Not Performed As Scheduled
- 2014-12802; ECCS Room Cooler 1 (E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736
- 2014-11725; ECCS Room Cooler 1 (E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736
- 2014-16322; ECCS Room Cooler 1 (DB-E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736
- 2015-00863; ECCS Room Cooler 1 (DB-E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736
- 2015-02079; ECCS Room Cooler 1 (DB-E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736 Following Cleaning Under 200619717

Calculations:
- C-NSA-032.02-006; ECCS Pump Room Heatup During Post LOCA; Revision 3

Drawings:
- M-041B; Primary Service Water System; Revision 72

Procedures:
- DB-OP-06261; Service Water System Operating Procedure; Revision 63
- DB-PF-04736; ECCS Room Cooler Monitoring Test; Revision 7
- DB-SP-3001; Service Water Loop 2 Integrated Flow Balance Procedure; Revision 17

Work Orders:
- 200557196; PM 1225 C31-1 Inspect ECCS Rm Cooler; 2/18/2015
- 200619717; Flush ECCS Room Cooler 1 IAW DP-OP-06261 Service Water System Operating System Procedure; 2/18/2015
- 200632829; PF4736-001 05.00 E42-1,2,3 TRAC TRN 2 Coolers; 2/18/2015

Vendor Manuals:
- M-411Q-00001-04; Instruction Manual for Aerofin Type “WR” Coils, Coils for ECCS Room Cooling Units

1R11 Licensed Operator Requalification Program and Licensed Operator Performance

Condition Reports:
- 2013-16552; Licensed Operator Letter and NRC Form 396
- 2013-18479; Licensed Operators Failed to Notify Health Services and Operations Training of Medical Status Change in a Timely Manner
- 2014-01665; NRC Minor Violation Regarding Required Notification/Submittal Date
- 2014-04899; Clarification of Licensed Operator Trial Period Prescription Usage
- 2014-06808; Improvements Needed in Maintenance of Licensed Operator Medical Qualification Processing
- 2014-12491; Licensed Operator Failed to Report Change in Medication
- 2014-12695; Licensed Operator Did Not Provide Medical Documentation in a Timely Manner
- 2014-13064; Notification of Change in Medical Condition for Reactor Operator
- 2014-13304; Licensed Operator Did Not Notify of Change in Medical Condition
- 2014-13305; Licensed Operator Did Not Comply with License Requirements
- 2014-13639; Trend CR for Timely Notification of Change in Medical Status of Licensed Operators
- 2015-00783; ULD Load Control Panel on C5707 Unresponsive
- 2015-00802; ULD Load Control Panel UIC-ULDOS Unresponsive
- 2015-02604; Main Turbine Stop Valve 4 Would Not Open When TEST OFF Pushbutton Was Depressed
- 2015-02870; Operating Crew Performance Critique of Turbine Stop Valve No. 4 Response During Testing

Procedures:
- DB-OP-06401; Integrated Control System Operating Procedure; Revision 23
- DB-OP-06402; CRD Operating Procedure; Revision 25
- DB-OP-06902; Power Operations; Revision 46
- DB-SC-03272; Control Rod Exercising Test; Revision 4
- DB-SS-04150; Main Turbine Stop Valve Test; Revision 13

- DB-SS-04151; Main Turbine Control Valve Test; Revision 15
- DB-SS-04152; Main Turbine Combined Intermediate Valve Test; Revision 10
- NOP-OP-1002; Conduct of Operations; Revision 9
- NT-OT-7001; Training and Qualification of Operations Personnel; Revision 14
- NOP-TR-1200; Conduct of Training; Revision 0
- NOP-TR-1008; FENOC Simulator Configuration Management; Revision 0
- NOP-TR-1010; Licensed Operator Requalification Exam Development; Revision 2
- NOP-OP-1013; Control of Time Critical Operator Actions; Revision 1
- NOP-OP-2001; Corrective Action Program; Revision 35
- NOP-LP-1020; Health Assessment; Revision 6
- NG-NT-00601; Control of the Plant-Referenced Simulator; Revision 3
- NG-DB-00319; Control of the Emergency Operating Procedure and Technical Bases; Revision 3

Work Orders:
- 200553258; DB-SC-03272: Control Rod Drive Exercising; 3/1/2015
- 200553278; DB-SS-04150: Main Turbine Stop Valve Test; 3/1/2015

FENOC Business Practices:
- DBBP-TRAN-0014; License Requirements for Licensed Individuals; Revision 10
- DBBP-TRAN-0021; Simulator Configuration Control; Revision 4
- DBBP-TRAN-0502; Continuing Training Simulator Evaluations; Revision 11
- NOBP-TR-1112; FENOC Conduct of Simulator Training and Evaluation; Revision 2
- NOBP-TR-1122; Operating Crew Performance Critique; Revision 1
- DBBP-OPS-1013; Control of Time Critical Actions; Revision 2
- DBBP-DBNA-0001; Completion of NRC Form 396 and Notification of Changes in Medical Condition; Revision 3

Simulator Scenario Guides:
- ORQ-EPE-S245; Revision 0

Other:
- Medical Records of All Currently Licensed Senior Reactor Operators and Reactor Operators

1R12 Maintenance Effectiveness

Condition Reports:
- 2013-16832; Possible Increasing Tritium Trend in Two Groundwater Protection Initiative Wells
- 2014-08772; SG Operate Levels High
- 2014-17439; RIC4598AAA Filter Fault (Unexpected Tech Spec LCO Entry)
- 2014-17999; Unexpected Trend of Lower Flow in Station Vent RE4598AA
- 2014-18197; Steam Generator Operating Levels Impacting Core Design and Core Operation
- 2014-18269; Unexpected Trend of Lowering Flow in Station Vent RE4598AA (2nd Occurrence)
- 2014-18479; Inability to Correct RCS Delta Tc Could Lead to Asymmetric Reactor Core Depletion
- 2015-00197; Condensate Containing Detectable Tritium Leaked into Manhole (MH3021)
- 2015-00214; Groundwater Tritium Concentration in Monitoring Well (MW-37S) Above 2,000 pCi/liter
- 2015-01071; Trend of Lowering Flow on RIC4598AA
- 2015-01455; Elevated Tritium Concentrations in Seven Groundwater Monitoring Wells

- 2015-01595; Indicated Steam Generator Level is Not Adjusted for Instrument Uncertainty in DB-OP-03006 When Checking Against the Maximum Allowable Steam Generator Level for SR 3.7.18.1
- 2015-01637; T476 May Not be Reading Correctly
- 2015-01867; Evaluation of Calculation Effect Not Documented in ECP for ROTSG
- 2015-01921; POD 2015-01595 (S/G Level) Includes an Incorrect Uncertainty Value
- 2015-02108; Groundwater Tritium Results Greater Than Courtesy Notification Level of 2000 pCi/l
- 2015-03642; Several Davis-Besse March Groundwater Well Tritium Samples Over 2,000 pCi/liter

Drawings:
- M-029C, Sheet 2; Containment and Penetration Rooms; Revision 44
- OS-008, Sheet 1; Main Steam and Reheat System; Revision 39

Calculations:
- C-ICE-083.01-004; Loop Uncertainty for Main Feedwater and High Pressure Turbine Main Steam Temperature and Pressure; Revision 4

Procedures:
- DB-CH-03008; Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE4598AA; Revision 15
- DB-SC-03200; Shift Channel Check of the Radiation Monitoring System; Revision 22
- DB-MI-03413; Channel Calibration of RE4598AA and RE4598BA Station Vent Normal Range Radiation Monitors; Revision 28
- DB-OP-03006; Miscellaneous Instrument Shift Checks; Revision 48-49
- DB-OP-06412; Process and Area Radiation Monitors; Revision 42
- DB-OP-06902; Power Operations; Revision 46
- DB-PF-06703; Miscellaneous Operation Curves; Revision 22
- NOP-OP-2012; Groundwater Monitoring; Revision 8
- NOP-OP-4705; Response to Contaminated Spills/Leaks; Revision 7

Other:
- Groundwater Monitoring Well Data Covering the Period of January 2014 through March 2015
- Davis-Besse System Health Report 2014 Second Half
- MRPM; Maintenance Rule Program Manual; Revision 33
- ODMI 2015-01595; Steam Generator Operate Levels Have Low Margin to LCO 3.7.18 Limits; Revision 00
- Standing Order 15-002; Determination of Allowable OTSG Operate Level Based on OTSG Superheat; Revision 0

Work Orders:
- 200630485; Increase Sample Flow RE459AA RFCA150030; 2/11/2015

1R13 Maintenance Risk Assessments and Emergent Work Control

Condition Reports:
- 2015-02034; Loss of As Found Leak Rate of RC240A Due to Mode of Failure
- 2015-02604; Main Turbine Stop Valve 4 Would Not Open When TEST OFF Pushbutton Was Depressed
- 2015-02831; RC240A Motor Operated Valve Diagnostic Data Evaluation

- 2015-02866; FENOC Leak Rate Monitor (FLRM) Failure During First Use After Calibration
- 2015-02870; Operating Crew Performance Critique of Turbine Stop Valve No. 4 Response During Testing

Procedures:
- DB-SS-04150; Main Turbine Stop Valve Test; Revision 13
- DB-PF-03008; Containment Local Leakage Rate Tests; Revision 18
- NG-DB-00212; Containment Storage; Revision 4

Work Orders:
- 200553278; DB-SS-04150: Main Turbine Stop Valve Test; 3/1/2015
- 200574186; Clean and Inspect Motor-Driven Feedwater Pump Coolers; 3/25/2015
- 200623272; Replace RC-240A Stem and/or Stem Nut; 3/3/2015

Notifications:
- 600945278; Engineering Evaluation Request – Material Allowed in Containment for RC-240A Repairs; 2/23/2015

Other:
- Davis-Besse System Health Report 2014 Second Half

1R15 Operability Determinations and Functionality Assessments

Condition Reports:
- 2013-15732; 2013 Approach Channel Inspection Results
- 2014-11823; Question Regarding Concrete Transition Service Water Intake Canal Approach Apron
- 2014-11892; RPC Ch 4 Overpower Trip As Found Greater Than 25mV Difference
- 2014-14562; RPS4 Overpower Bistable Trip Setpont ‘As-Found’ Out of Tolerance Again
- 2014-15167; Results of Intake Canal and Forebay Silt Measurement
- 2014-18197; Steam Generator Operating Levels Impacting Core Design and Core Operation
- 2015-00047; Overpower Trips Bi-Stable Out of Tolerance RPS Ch 4
- 2015-01595; Indicated Steam Generator Level is Not Adjusted for Instrument Uncertainty in DB-OP-03006 When Checking Against the Maximum Allowable Steam Generator Level for SR 3.7.18.1
- 2015-01637; T476 May Not be Reading Correctly
- 2015-01867; Evaluation of Calculation Effect Not Documented in ECP for ROTSG
- 2015-01921; POD 2015-01595 (S/G Level) Includes an Incorrect Uncertainty Value
- 2015-04127; LIC 6452 – AFPT No. 1 Target Controller Displayed DLINK Indicating Error

Drawings:
- OS-008; Sheet 1; Main Steam and Reheat System; Revision 39

Calculations:
- C-ICE-083.01-004; Loop Uncertainty for Main Feedwater and High Pressure Turbine Main Steam Temperature and Pressure; Revision 4
- C-NSA-060.05-010; Containment Vessel Analysis; Revision 7-8

Procedures:
- DB-MI-03060; Calibration of Overpower, Power/Imbalance/Flow, and Power/Pumps Trip Functions; Revision 32

- DB-OP-03006; Miscellaneous Instrument Shift Checks; Revision 48-49
- DB-OP-06261; Service Water System Operating Procedure; Revision 63
- DB-OP-06902; Power Operations; Revision 46

Work Orders:
- 200466577; PM 4894: Inspect Intake Canal/Forebay; 10/8/2014
- 200541912; MI3060-001 08.00A: RPS Channel 4 Functional Test/Calibration; 1/2/2015
- 200619213; Dredge the Non-Q Portion of Intake Canal; 11/17/2014

Other:
- Davis-Besse Intake Channel Surveys and Sounding Results November – December 2014
- ODMI 2015-01595; Steam Generator Operate Levels Have Low Margin to LCO 3.7.18 Limits; Revision 00
- Standing Order 15-002; Determination of Allowable OTSG Operate Level Based on OTSG Superheat; Revision 0

1R18 Plant Modifications

Condition Reports:
- 2014-08772; SG Operate Levels High
- 2014-18197; Steam Generator Operating Levels Impacting Core Design and Core Operation
- 2015-01595; Indicated Steam Generator Level Is Not Adjusted For Instrument Uncertainty In DB-OP-03006 When Checking Against The Maximum Allowable Steam Generator Level For SR 3.7.18.1

Procedures:
- DB-OP-03006; Miscellaneous Instrument Shift Checks; Revision 49

Engineering Change Packages:
- 14-0376-010; Change Integrated Control System High Level Limit from 92% to 93.5%; Revision 1

1R19 Post-Maintenance Testing

Condition Reports:
- 2015-00863; ECCS Room Cooler 1 (DB E42 1) Did Not Meet Acceptance Criteria per DB-PF-04736
- 2015-01099; Incorrect Revision of Procedure Listed in Order 200553424, Reactor Trip Breaker "A" Breaker Swap
- 2015-01184; BACC – A Packing Leak was Found on DH14A
- 2015-01186; BACC - A Packing Leak Was Found on DH70
- 2015-01638; Potential Non-Conservative Technical Specification Surveillance Requirements for EDG Steady State Voltage
- 2015-02034; Loss of As Found Leak Rate of RC240A Due to Mode of Failure
- 2015-02079; ECCS Room Cooler 1 (DB-E42-1) Did Not Meet Acceptance Criteria per DB-PF-04736 Following Cleaning Under 200619717
- 2015-02831; RC240A Motor Operated Valve Diagnostic Data Evaluation
- 2015-02866; FENOC Leak Rate Monitor (FLRM) Failure During First Use After Calibration

Drawings:
- M-033C; Decay Heat Train 2; Revision 27

- M-041B; Primary Service Water System; Revision 72
- OS-004; Sheet 1; Decay Heat Removal / Low Pressure Injection System; Revision 52
- OS-004; Sheet 2; Decay Heat Removal / Low Pressure Injection System; Revision 7

Procedures:
- DB-OP-06401; Integrated Control System Operating Procedure; Revision 23
- DB-OP-06402; CRD Operating Procedure; Revision 25
- NG-DB-00212; Containment Storage; Revision 4
- DB-MI-03012; Channel Functional Test of Reactor Trip Breaker 'A', RPS Channel 2 Reactor Trip Module Logic, and ARTS Channel 2 Output Logic; Revisions 31-34
- DB-ME-03020; Reactor Trip Breaker Response Time Test; Revision 4
- DB-ME-05250; ITE / Brown Boveri / ABB Voltage Relay; Revisions 2-3
- DB-ME-09101; Reactor Trip Breaker Maintenance and Testing; Revision 3
- DB-OP-06316; Diesel Generator Operating Procedure; Revision 57
- DB-PF-03008; Containment Local Leakage Rate Tests; Revision 18
- DB-PF-04736; ECCS Room Cooler Monitoring Test; Revision 7
- DB-SC-03070; Emergency Diesel Generator 1 Monthly Test; Revision 35
- DB-SC-03161; RPS Overall Response Time Calculations Channel 2; Revision 6
- DB-SP-03447; Decay Heat Train 2 Pump and Valve Test (Mode 1-3), Revision 1

Work Orders:
- 200534082; PM 1908 PS5154 & PSL5163 *Cal* EDG #1 Air; 4/6/2015
- 200548064; SC3070-001 EDG1 Monthly DA30; 2/13/2015
- 200553424; Periodic Scheduled Swap of Reactor Trip Breaker 'A'; 1/20/2015
- 200560959; PM 0294 MVDH1A Clean and Inspect; 1/26/2015
- 200562611; PM 0297 MV2734 Inspect; 1/26/2015
- 200565934; SP3447-010 Leakage Test; 1/27/2015
- 200566339; SP3447-001 DH/LPI 1-2 Quarterly Test; 1/27/2015
- 200557196; PM 1225 C31-1 *Insp* ECCS Rm Clr; 2/18/2015
- 200595646; DA 30 – Repair Leakby; 12/15/2014
- 200601211; Clean and Inspect Reactor Trip Breaker 3; 1/20/201511
- 200619717; Flush ECCS Room Cooler 1 IAW DP-OP-06261 Service Water System Operating System Procedure; 2/18/2015
- 200623272; Replace RC-240A Stem and/or Stem Nut; 3/3/2015
- 200631671; EDG Air Receiver 1-1-1 Pilot Regulator Replacement; 2/12/15
- 200632829; PF4736-001 05.00 E42-1,2,3 TRAC TRN 2 Coolers; 2/18/2015

Notifications:
- 600945278; Engineering Evaluation Request – Material Allowed in Containment for RC-240A Repairs; 2/23/2015

1R22 Surveillance Testing

Condition Reports:
- 2008-41150; Inadequate Voltage on AC Power System to Perform DB-SC-03003 During Modes 1-4
- 2012-14402; DB-SC-03003 Revision 5 Limited Use Change for Testing of Appendix R Circuits
- 2015-02034; Loss of As Found Leak Rate of RC240A Due to Mode of Failure
- 2015-02831; RC240A Motor Operated Valve Diagnostic Data Evaluation
- 2015-02866; FENOC Leak Rate Monitor (FLRM) Failure During First Use After Calibration
- 2015-03392; CIV No. 1 Failed to Fast Close

Drawings:
- E-1; Sheet 1; A. C. Electrical System One Line Diagram; Revision 38
- E-1; Sheet 2; A. C. Electrical System One Line Diagram; Revision 75
- E-4; Sheet 1; “E” Buses 480V Unit Substations One Line Diagram; Revision 44
- E-34B; Sheet 16; Elementary Wiring Diagrams, 4.16 kV Feed Breakers Essential Unit Substations E1, F1 Control; Revision 7
- M-581A; Station Electrical Distr. Panel C-15; Revision 20

Procedures:
- DB-PF-03008; Containment Local Leakage Rate Tests; Revision 18
- DB-PF-06703: CC 13.5; Miscellaneous Operations Curves: EDG Reactive Capability Curve; Revision 22
- DB-ME-09500; Installation and Termination of Electrical Cables; Revision 28
- DB-SC-03003; Testing of Appendix R Circuits for AC1CE11, AC1CE12, BCE11, BCE12; Revision 6
- DB-SC-03071; Emergency Diesel Generator 2 Monthly Test; Revision 34
- DB-SC-03272; Control Rod Exercising Test; Revision 4
- DB-SS-04150; Main Turbine Stop Valve Test; Revision 13
- DB-SS-04151; Main Turbine Control Valve Test; Revision 15
- DB-SS-04152; Main Turbine Combined Intermediate Valve Test; Revision 10
- DB-OP-06402; CRD Operating Procedure; Revision 25
- NG-DB-00212; Containment Storage; Revision 4

Work Orders:
- 200518864; Appendix R Circuit Test DB-SC-3003; 1/16/2015
- 200546650; Emergency Diesel Generator 2 Monthly Test From the DA31 Side; 1/29/2015
- 200553258; DB-SC-03272: Control Rod Drive Exercising; 3/1/2015
- 200553278; DB-SS-04150: Main Turbine Stop Valve Testing; 3/15/2015
- 200623272; Replace RC-240A Stem and/or Stem Nut; 3/3/2015

Notifications:
- 600945278; Engineering Evaluation Request – Material Allowed in Containment for RC-240A Repairs; 2/23/2015

<u>1EP6 Drill Evaluation</u>

Condition Reports:
- 2015-02285; Two ERO RMT Vehicles Would Not Start
- 2015-02407; EP Drill – Alternate TSC February 2015 Critique
- 2015-02442; EP Drill – February 2015 Simulator Control Room Communications
- 2015-02443; EP Drill – February 2015 Periodic Update Not Performed Within 1 Hour
- 2015-02444; EP Drill – February 2015 Summary of Items Critiqued for the Simulator Control Room
- 2015-02472; PA-DB-15-01: Simulation Emergency Preparedness Drill Activities
- 2015-02507; EP Drill – February 24, 2015, Integrated Drill: Objective D3 for Operation Support Center (OSC) Muster Area Activation Met with Comments
- 2015-02508; EP Drill – February 24, 2015, Integrated Drill: Operations Support Center (OSC) Form for OSC Repair Team from the Lindsey Emergency Response Facility is Needed as the Mission and Routing is Different than an OSC Repair Team from the Normal OSC
- 2015-02588; EP Drill – Lindsey OSC Muster Area Summary Condition Report For the February 24, 2015, Integrated Drill

- 2015-02608; EP Drill – Site Protection Summary Condition Report for the February 24, 2015, Integrated Drill
- 2015-02602; EP Drill – Emergency Operations Facility (EOF) Performance Summary
- 2015-03960; MIDAS Dose Assessment Software Crashed During 3/24/15 Emergency Response Dry Run
- 2015-04036; EP Drill March 24 Dry Run – JIC Roll Up
- 2015-04052; EP Drill – Site Protection Summary Condition Report For the March 24, 2015 Dry Run Drill
- 2015-04054; EP Drill – March 24, 2015 Dry Run – Simulated TOC at DBAB Caused Direction and Control Issues
- 2015-04084; EP Drill – Alternate TSC March 2015 Dry Run Critique
- 2015-04047; EP Drill – Lindsey OSC Muster Area Summary Condition Report For the March 24, 2015 Dry Run
- 2015-04131; EP Drill March 24 Dry Run – Control of Non-Licensed Operators During Scenario
- 2015-04133; EP Drill March 24 Dry Run – Simulator Critique
- 2015-04147; EP Drill – March 24, 2015 Dry Run Emergency Operations Facility Roll Up

Procedures:
- RA-EP-01500; Emergency Classification; Revision 15
- RA-EP-02010; Emergency Management; Revision 17
- RA-EP-02220; Emergency Operations Facility Activation and Response; Revision 12
- RA-EP-02310; Technical Support Center Activation and Response; Revisions 12 – 13

Other:
- Davis-Besse Emergency Preparedness 2015 Integrated Drill Manual; 2/24/2015
- Davis-Besse Emergency Preparedness 2015 Biennial Graded Exercise Dry Run Integrated Drill Manual; 3/24/2015
- DBRM-EMER-1500B; Hot EAL Wall Board, Revision 1
- DBRM-EMER-1500B; Cold EAL Wall Board, Revision 1

2RS6 Radioactive Gaseous and Liquid Effluent Treatment

Condition Reports:
- 2014-09968; RE-4686, Storm Sewer Radiation Element Declared Inoperable Due to Low Flow
- 2014-11538; Nuclide Entered into Liquid Release Procedure Which is Not to be Included
- 2014-12674; Adverse Trend in Failure Rate of RE-8433, Station Effluent Radiation Element
- 2014-17878; NRC Inspection: RE744 Module is Missing Abandoned Equipment Tag
- 2015-00038; Condensate Containing Detectable Tritium Directed to Water Treatment Plant
- 2014-18269; Unexpected Trend of Lowering Flow in Station Vent RE4598AA (Second Occurrence)
- 2015-000178; Check Valve Installed in MH-3021 Filed to Hold During Post Maintenance Testing

Procedures:
- DB-CH-01804; Tritium Determination; Revision 9
- DB-CN-03001; Liquid and Gaseous Radioactive Dose Commitment; Revision 3
- DB-CN-03008; Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE 4598AA; Revision 15
- DB-CN-03009; RE4598BA Station Vent Analysis, Particulate and Iodine Sampling; Revision 9
- DB-CN-03010; Station Vent Releases, Monthly Radiological Monitoring Analysis; Revision 5
- DB-CN-03011; Station Vent Releases, Quarterly Radiological Monitoring Analysis; Revision 7

- DB-CN-03012; Liquid Releases, Monthly Monitoring Analysis; Revision 3
- DB-CN-03013; Liquid Releases, Quarterly Monitoring Analysis; Revision 6
- DB-CN-03023; Annual Land Use Census; Revision 2
- DB-CN-04032; Wastewater Treatment Sludge Holding Tank Analysis; Revision 3
- DB-CN-04038; Radioactive Strontium Determination in Condensate; Revision 3
- DB-CN-04040; North Settling Basin Quarterly Analysis; Revision 4
- DB-HP-01112; Calibration of the Gamma Spectrometer System; Revision 7
- BD-HP-01113; Count Room Analysis System (CAS) Operation; Revision 9
- DB-OP-03011; Radioactive Liquid Batch Release; Revision 3
- DB-OP-03012; Radioactive Gaseous Batch Release; Revision 6
- DB-SS-03145; Control Room Emergency Ventilation System (CREVS) Refueling Interval Special Test Train 1; Revision 12
- DB-SS-03252; Emergency Ventilation System (EVS) Train 1 Refueling Interval Special Test; Revision 10
- DB-SS-03253; Emergency Ventilation System (EVS) Train 2 Refueling Interval Special Test; Revision 10
- DB-SS-04044; Lab Flood Exhaust Filter Refueling Test; Revision 4
- DB-SS-04045; High Efficiency Particulate Air (1-TEPA) Filters and Charcoal Absorbers Test; Revision 6
- DB-MI-03440; Channel Calibration Of FE/FT-3611 Dilution Pump Discharge Flow; Revision 5
- DB-MI-03442; Channel Calibration Of 32C-ISF 5090 Station Vent Flow; Revision 8

Other:
- Davis-Besse Offsite Dose Calculation Manual; Revisions 29-30
- Results of the Radiochemistry Cross Check Program, Davis-Besse; First Quarter of 2013 through Third Quarter of 2014
- 10 CFR Part 61 Analysis of Davis-Besse Nuclear Power Station; January 12, 2015
- ERM-0227237; Five Year Update of Ground Water Flow Characteristics Report for Davis-Besse Nuclear Power Station Oak Harbor, Ohio; November 18, 2014
- MS-C-123-08-03; Fleet Oversight Audit Report; October 10, 2013
- NOP-OP-3202; Davis-Besse Chemistry Department High Purity Germanium Detector 2 Quality Control Chart; January 1, 2014, to December 31, 2014

4OA1 Performance Indicator Verification

Forms:
- NOBP-LP-4012-44; Initiating Events Cornerstone Indicators; Revision 0

FENOC Business Practices:
- NOBP-LP-4012; NRC Performance Indicators; Revision 4

Other:
- Select Operator Logs covering the period of January 2014 through December 2014

4OA2 Problem Identification and Resolution

Condition Reports:
- 2013-07632; Medical Forms for Upgrade SROs in DBLOT13 Not Sent With 30 Day Preliminary Applications
- 2013-08874; Incorrect Date on NRC Form 396 for Medical Status of a Licensed Operator
- 2013-16552; Licensed Operator Letter and NRC Form 396

- 2013-18479; Licensed Operators Failed to Notify Health Services and Operations Training of Medical Status Change in a Timely Manner
- 2013-18929; Individual Signed on to Licensed Operator Requal Exam Security Agreement Performed an Observation on Licensed Operators
- 2013-19307; NRC Disagreement with Conclusion of CR 2013-16552 Regarding Licensed Operator Medical Documentation
- 2013-19872; Delayed Operator License Renewal Information to Regulatory Compliance
- 2014-01451; Late NRC Notification of Licensed Operator Restriction
- 2014-01665; NRC Minor Violation Regarding Required Notification/Submittal Date
- 2014-04899; Clarification of Licensed Operator Trial Period Prescription Usage
- 2014-06808; Improvements Needed in Maintenance of Licensed Operator Medical Qualification Processing
- 2014-12491; Licensed Operator Failed to Report Change in Medication
- 2014-12695; Licensed Operator Did Not Provide Medical Documentation in a Timely Manner
- 2014-13064; Notification of Change in Medical Condition for Reactor Operator
- 2014-13304; Licensed Operator Did Not Notify of Change in Medical Condition
- 2014-13305; Licensed Operator Did Not Comply with License Requirements
- 2014-13639; Trend CR for Timely Notification of Change in Medical Status of Licensed Operators
- 2014-18085; Records in Health Services Do Not Meet Expectations of NRC Inspection
- 2014-18975; Improper Date on Operator Medical Letter
- 2015-00824; Licensed Operator Did Not Report Change in Medical Condition
- 2015-00851; Health Services Did Not Notify the NRC of Change in Licensed Operator Medical Condition
- 2015-00868: License Operator Did Not Inform Health Services of Extended Use of Medication
- 2015-00881; NRC Inspector Identified License Operator Medication Not Reported to NRC Within 30 Days
- 2015-02119; Fire Watch Missed Opportunities
- 2015-02126; Missed Fire Watch for Room 425
- 2015-04246; Inaccurate Information Discovered in Apparent Limited Cause Evaluation of 2015-02126
- 2015-04248; Fire Watch Improvement Opportunities

Procedures:
- NOP-LP-2001; Corrective Action Program; Revision 35

Other:
- Select Operator Logs covering the period of January 2014 through March 2015

4OA5 Other Activities

Condition Reports:
- 2013-04596; Finding; No Current Evaluation is in Place for Temporary Storage of Radioactive and Combustible Material on the Dry Fuel Storage Facility Pad
- 2013-04656; MS-C-13-03-30 10 CFR 72.48 Screens Are Not Being Completed for Some Documents Related to Dry Fuel Storage
- 2013-04672; A Change to DB-FP-00007 Was Lacking Basis Documentation and 10 CFR 72.48
- 2013-12538; Broken Grounding Lead on Dry Fuel Storage Pad Fence
- 2013-12587; HSM Concrete, Conduit, Coating Rework
- 2013-16832; Possible Increasing Tritium Trend in Two Groundwater Protection Initiative Wells

- 2014-00924; Rock Salt Use on Dry Fuel Storage Pad Not in Accordance with ECP 13-0178
- 2015-00197; Condensate Containing Detectable Tritium Leaked into Manhole (MH3021)
- 2015-00214; Groundwater Tritium Concentration in Monitoring Well (MW-37S) Above 2,000 pCi/liter
- 2015-01455; Elevated Tritium Concentrations in Seven Groundwater Monitoring Wells
- 2015-02108; Groundwater Tritium Results Greater Than Courtesy Notification Level of 2000 pCi/l
- 2015-03642; Several Davis-Besse March Groundwater Well Tritium Samples Over 2,000 pCi/liter

Procedures:
- NOP-OP-1015; Event Notifications; Revision 2
- NOP-OP-2012; Groundwater Monitoring; Revision 8
- NOP-OP-4705; Response to Contaminated Spills/Leaks; Revision 7
- DB-FP-00007; Control of Transient Combustibles, Revision 9
- DB-NE-06471; Dry Fuel Storage Unloading; Revision 1
- DB-NE-03400; Horizontal Storage Module (HSM) Monitoring; Revision 5
- DB-OP-02550; Dry Fuel Storage Abnormal Events; Revision 3

Business Practices:
- NOBP-OP-1015; Event Notifications; Revision 2
- DBBP-RP-1010; Routine Radiological Surveys; Revision 20

Other:
- Groundwater Monitoring Well Data covering the period of January 2014 through March 2015
- ISFSI Certificate of Compliance; Certificate Number 1004; Revision 0
- Fleet Oversight Audit Report MS-C-13-03-30
- 72.212 Report; Evaluation of the NUHOMS Dry Fuel Storage System for Use at the Davis-Besse Nuclear Power Station

10 CFR 72.48 Screenings and Evaluations:
- 13-02739; Update to Davis Besse 72.212 Report
- 13-01508; Use of the Dry Fuel Storage Facility Pad for 18 RFO Support Activities

4OA7 Licensee-Identified Violations

Condition Reports:
- 2015-02119; Fire Watch Missed Opportunities
- 2015-02126; Missed Fire Watch for Room 425
- 2015-04246; Inaccurate Information Discovered in Apparent Limited Cause Evaluation of 2015-02126
- 2015-04248; Fire Watch Improvement Opportunities

Procedures:
- DB-FP-00007; Control of Transient Combustibles; Revision 13
- DB-FP-00009; Fire Protection Impairment and Fire Watch; Revision 20
- DB-FP-00018; Control of Ignition Sources; Revision 12

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CIV	Containment Isolation Valve
CR	Condition Report
CRD	Control Rod Drive
DBBP	Davis-Besse Business Practice
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
ECP	Engineering Change Package
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
HPI	High Pressure Injection
HSM	Horizontal Storage Module
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
ISFSI	Independent Spent Fuel Storage Installation
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LPI	Low Pressure Injection
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records System
PI	Performance Indicator
PM	Post Maintenance
PMT	Post-Maintenance Testing
RG	Regulatory Guide
RFO	Refueling Outage
RP	Radiation Protection
RPS	Reactor Protection System
SDP	Significance Determination Process
SRO	Senior Reactor Operator
SSC	Systems, Structures, and Components
Tc	Temperature Cold
TS	Technical Specification
USAR	Updated Safety Analysis Report
URI	Unresolved Item
WO	Work Order

accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Branch 4
Division of Reactor Projects

Docket Nos. 50–346; 72–014
License No. NPF–3

Enclosure:
IR 05000346/2015001 and 07200014/2015001
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