



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, ILLINOIS 60532-4352

August 10, 2018

Mr. David B. Hamilton
Site Vice President
FirstEnergy Nuclear Operating Company
Perry Nuclear Power Plant
Reg Affairs–A210
10 Center Road, P.O. Box 97
Perry, OH 44081–0097

SUBJECT: PERRY NUCLEAR POWER PLANT—NRC INTEGRATED INSPECTION REPORT
05000440/2018002

Dear Mr. Hamilton:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed a baseline inspection at your Perry Nuclear Power Plant. On July 11, 2018, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that one violation is associated with this issue. Because you have initiated condition reports to address this issue, the violation is being treated as Non-Cited Violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy. The NCV is described in the subject inspection report.

If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555–0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement; and the NRC Resident Inspectors at the Perry Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC resident inspectors at the Perry Nuclear Power Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Billy Dickson, Chief
Branch 5
Division of Reactor Projects

Docket No. 50-440; 72-069
License No. NPF-58

Enclosure:
Inspection Report 05000440/2018002

cc: Distribution via ListServ®

Letter to David Hamilton from Billy Dickson dated August 10, 2018

SUBJECT: PERRY NUCLEAR POWER PLANT—NRC INTEGRATED INSPECTION REPORT
05000440/2018002

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440

License No: NPF-58

Report No: 05000440/2018002

Enterprise Identifier: I-2018-002-0018

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Perry Nuclear Power Plant

Location: North Perry, Ohio

Dates: April 1 through June 30, 2018

Inspectors: J. Steffes, Senior Resident Inspector
P. Meier, Acting Senior Resident Inspector
J. Nance, Resident Inspector
S. Bell, Health Physicist

Approved by: B. Dickson, Chief
Branch 5
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting an integrated quarterly inspection at Perry Nuclear Power Plant, Unit 1, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. Findings and violations being considered in the NRC's assessment are summarized in the table below.

List of Findings and Violations

Failure to Control Transient Combustible Materials in a Designated Combustible Control Zone			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green Finding NCV 05000440/2018002-01 Closed	H.12 – Avoid Complacency	71111.05AQ
The inspectors identified a finding of very low safety significance (Green) and an associated non-cited violation (NCV) of Perry Operating License Condition 2.C(6), Fire Protection, for the licensee's failure to control transient combustible materials in a designated combustible control zone within fire area 1AB-1g on Auxiliary Building elevation 574' – 10". Specifically, on May 16, 2018, the inspectors identified transient combustible materials left unattended in the designated combustible control zone in the corridor outside the emergency core cooling system (ECCS) pump rooms, which exceeded the ten pound limit established in the Fire Protection Program document, PAP-1910, for ordinary combustibles (loose) in designated combustible control zones without a transient combustible permit.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000440/2016-003-01	Loss of Safety Related Electrical Bus Results in a Loss of Shutdown Cooling	71153	Closed

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PLANT STATUS

The plant began the inspection period at rated thermal power. On April 12, 2018, reactor power was lowered to 95 percent to recover reactor recirculating jet pump flow mismatch following the failure of the 'B' loop flow control valve. The reactor was returned to rated thermal power on April 12, 2018. On June 2, 2018, reactor power was lowered to 70 percent to perform rod sequence exchange. The unit was returned to rated thermal power on June 3, 2018. The unit remained at, or near, rated thermal power for the remainder of the inspection period with the exception that on several occasions, power was reduced to maintain condensate demineralizer outlet temperature and/or high condenser circulating water outlet temperatures at or below their respective upper limits due to environmental conditions. The power reductions varied between 1 and 14 percent of rated thermal power and lasted from a few hours to several days.

On March 28, 2018, FirstEnergy Solutions (FES) / FirstEnergy Nuclear Operating Company (FENOC) verbally notified the NRC that they intended to shut down all four of their operating nuclear power units. Perry Nuclear Power Plant, Unit 1, is scheduled to be shut down May 31, 2021. On March 31, 2018, FES, FirstEnergy Nuclear Generation (FENGEN), and FENOC filed for bankruptcy. The NRC continues to maintain focus on public health and safety and the protection of the environment. This will include a continuous evaluation by inspectors to determine whether the licensee's financial condition is impacting safe operation of the plant.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515 Appendix D, "Plant Status" and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01—Adverse Weather Protection

Summer Readiness (1 Sample)

The inspectors evaluated summer readiness of offsite and alternate alternating current (AC) power systems.

Impending Severe Weather (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions for a high wind warning in the area on May 4, 2018.

71111.04—Equipment Alignment

Partial Walkdown (4 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Low pressure core spray system on May 17, 2018;
- (2) Reactor core isolation cooling system on June 22, 2018;
- (3) Control room ventilation and control room emergency recirculation system on June 19 and 20, 2018; and
- (4) 'B' train of annulus exhaust gas treatment system on June 20 and 21, 2018.

71111.05AQ—Fire Protection Annual/Quarterly

Quarterly Inspection (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Auxiliary Building 574 foot elevation, fire zones 1AB–1g on May 16, 2018;
- (2) Control Complex Division 1 and 3 switchgear rooms, fire zones 1CC–3b and 3c on May 22, 2018;
- (3) Control Complex 638 foot elevation, fire zones 1CC/2CC–4a, b, c, d, e, f, g, h, and i on April 27, 2018;
- (4) Intermediate Building 599 foot elevation; fire zone 0IB–2 and fuel handling building 574 and 599 foot elevations; fire zones 0FH–1 and 2 on June 6 and 7, 2018; and
- (5) Division 2 Diesel Generator Room; fire zone 1DG–1A on May 22, 2018.

Annual Inspection (1 Sample)

The inspectors evaluated fire brigade performance on May 10, 2018.

71111.11—Licensed Operator Regualification Program and Licensed Operator Performance

Operator Regualification (1 Sample)

The inspectors observed and evaluated an operations crew-evaluated scenario in the plant training simulator on April 30, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated operations crew response to an unexpected increase in power and subsequent recovery due to the failure of the hydraulic control portion of the 'B' reactor recirculating loop flow control valve on April 12, 2018.

71111.12—Maintenance Effectiveness

Quality Control (1 Sample)

The inspectors evaluated maintenance and quality control activities associated with the

following equipment performance issue:

- (1) High pressure core spray elbow replacement activities due to a through wall leak on May 15 through 23, 2018.

71111.13—Maintenance Risk Assessments and Emergent Work Control (6 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Ground detection and isolation activities on the 125 VDC load center, D-1-B;
- (2) 'A' average power range monitor power supply card replacement;
- (3) Replacement of the reactor recirculation hydraulic power unit 'B' subloop 1 servo valve amphenol connector cable;
- (4) Spent fuel pool moves in preparation for the 1R17 refueling outage;
- (5) Division 3 outage for high pressure core spray minimum flow line elbow replacement, Division 3 diesel generator and emergency service water preventive maintenance activities; and
- (6) Plant risk evaluation for work activities while interbus transformer LH-1-B and 'B' essential service water sluice gate removed from service.

71111.15—Operability Determinations and Functionality Assessments (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Division 2 diesel generator exhaust temperature thermocouple failure;
- (2) Division 3 diesel generator operability determination following woodward governor lube oil replacement;
- (3) 'A' control rod drive pump; and
- (4) 'A' Emergency service water and 'A' residual heat removal system assessment following the discovery of a pin hole leak from the 'A' emergency service water system.

71111.18—Plant Modifications (1 Sample)

The inspectors evaluated the following temporary modification:

- (1) Plant modification to clear the electrical ground on the 125 VDC load center, D-1-B, and prevent further plant upset due to the ground.

71111.19—Post Maintenance Testing (7 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Testing following the replacement of the power supply for the power monitoring card associated with the 'A' average power range monitor on April 23, 2018;
- (2) Testing following the replacement of the reactor recirculation hydraulic power unit 'B' subloop 1 servo valve amphenol connector cable on April 24 through 26, 2018;
- (3) Testing of the 13.8 kilovolt bus L20 supply and crosstie breakers following breaker replacement on May 8 and 9, 2018;
- (4) 'B' reactor protection system motor generator following cleaning, inspection, lubrication,

- and motor analysis on May 9 and 10, 2018;
- (5) Division 3 diesel generator testing following maintenance window on May 21, 2018;
 - (6) Testing following the replacement of the high pressure core spray recirculation line elbow on June 12, 2018; and
 - (7) Division 1 diesel generator '2A' supply fan testing following structural inspections on June 25 through 28, 2018.

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (5 Samples)

- (1) 'A' Average power range monitor channel calibration for 1C51–K605A on April 23, 2018;
- (2) High pressure core spray diesel generator monthly surveillance test on May 11, 2018;
- (3) Safety relief valve and Low-Low set pressure actuation channel functional for 1B21– N668E on May 24, 2018;
- (4) 'B' Fuel pool cooling and cleanup pump and valve surveillance test on June 20, 2018; and
- (5) 'A' Standby liquid control pump and valve operability test on June 27, 2018.

In-service (1 Sample)

- (1) 'B' residual heat removal system pump and valve surveillance on April 30 through May 2, 2018.

71114.06—Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated an emergency response organization drill on June 6, 2018.

RADIATION SAFETY

71124.03—In-Plant Airborne Radioactivity Control and Mitigation

Engineering Controls (1 Sample)

The inspectors evaluated airborne controls and monitoring.

Use of Respiratory Protection Devices (1 Sample)

The inspectors evaluated respiratory protection.

71124.04—Occupational Dose Assessment

Source Term Characterization (1 Sample)

The inspectors evaluated the licensee's source term characterization.

External Dosimetry (1 Sample)

The inspectors evaluated the licensee's external dosimetry program.

Internal Dosimetry (1 Sample)

The inspectors evaluated the licensee's internal dosimetry program.

Special Dosimetric Situations (1 Sample)

The inspectors evaluated the licensee's performance for special dosimetric situations.

OTHER ACTIVITIES – BASELINE

71151—Performance Indicator Verification (3 Samples)

The inspectors verified licensee performance indicators submittals listed below:

- (1) MS05: Safety System Functional Failures (SSFFs) Sample—1 Sample (April 1, 2017, through March 31, 2018);
- (2) MS06: Emergency AC Power Systems—1 Sample (April 1, 2017, through March 31, 2018); and
- (3) MS07: High Pressure Injection Systems—1 Sample (April 1, 2017, through March 31, 2018).

71153—Follow-Up of Events and Notices of Enforcement Discretion

Events (1 Sample)

The inspectors evaluated the 'B' recirculating flow control valve failure which resulted in jet pump flow mismatch and the licensee's response on April 12, 2018.

Licensee Event Reports (1 Sample)

The inspectors evaluated the following licensee event reports which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>:

- (1) Licensee Event Report (LER) 05000440/2016–003–01 – Loss of Safety Related Electrical Bus Results in a Loss of Shutdown Cooling. A finding and associated non-cited violation (NCV) was previously documented in NRC Integrated Inspection Report 05000440/2017001 dated May 15, 2017, (ADAMS Accession No. ML17131A207) as NCV 05000440/2017001–01, Failure to Implement Procedures for Combating a Loss of Shutdown Cooling. This LER is closed.

INSPECTION RESULTS

71111.05AQ—Fire Protection Annual/Quarterly

Failure to Control Transient Combustible Materials in a Designated Combustible Control Zone			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000440/2018002–01 Closed	[H.12] – Avoid Complacency	71111.05AQ
<p>The inspectors identified a finding of very low safety significance (Green) and an associated NCV of Perry Operating License Condition 2.C(6), Fire Protection, for the licensee's failure to control transient combustible materials in a designated combustible control zone within fire area 1AB–1g on Auxiliary Building elevation 574' – 10". Specifically, on May 16, 2018, the inspectors identified transient combustible materials left unattended in the designated combustible control zone in the corridor outside the emergency core cooling system (ECCS) pump rooms, which exceeded the ten pound limit established in the Fire Protection Program document, PAP–1910, for ordinary combustibles (loose) in designated combustible control zones without a transient combustible permit.</p>			
<p><u>Description:</u></p> <p>On May 16, 2018, the inspectors identified transient combustible materials left unattended in the designated combustible control zone in the corridor outside the ECCS pump rooms on Auxiliary Building elevation 574' 10" and within fire area 1AB–1g. The combustible control zone was marked off with red and white tape and had an overhead sign designating the area as a combustible control zone with additional instructions detailing the requirements for storing combustible material within the boundaries of the combustible control zone. The combustible materials consisted of two large plastic laundry/trash carts filled with flexible ventilation ducting, catch containment devices, plastic bags filled with zip ties, mop heads, rags, and other loose combustibles. In the licensee's engineering evaluation, the licensee estimated the weight of the ordinary combustibles, based on the photographs taken, to be, "very near the 150 pounds of margin identified in the calculation P54-024." The calculated weight was 149.5648 pounds, rounded to 149.6 pounds.</p> <p>Corrective Actions: Immediately following notification by the NRC of the combustible materials being stored in the combustible control zone without an approved transient combustible permit, the licensee had the materials removed from the combustible control zone and entered the issue into its corrective action program.</p> <p>Corrective Action References: CR–2018–04561 and CR–2018–04568</p>			
<p><u>Performance Assessment:</u></p> <p>Performance Deficiency: The inspectors determined that the licensee's failure to control transient combustible materials in a designated combustible control zone within fire area 1AB–1g on Auxiliary Building elevation 574' – 10" was a performance deficiency that was reasonably within the licensee's ability to foresee and should have been prevented. Specifically, on May 16, 2018, the inspectors identified transient combustible materials left unattended in the designated combustible control zone in the corridor outside the ECCS</p>			

pump rooms, which exceeded the ten pound limit established in PAP–1910 for ordinary combustibles (loose) in designated combustible control zones without a transient combustible permit.

Screening: The inspectors determined the performance deficiency to be more than minor because it was related to the Mitigating Systems cornerstone attribute of protection against external factors (fire) and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure to properly control combustible materials in safety-related and risk significant plant areas could challenge the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences, such as core damage. Furthermore, the inspectors reviewed the examples of minor issues in IMC 0612 Appendix E dated August 11, 2009, and determined the finding was similar to example 4.k. for an issue of concern involving transient combustibles in a designated combustible control zone, which is defined in the licensee's Fire Protection Program (PAP–1910) as an area within the plant containing redundant trains of equipment and/or circuits required for the safe shutdown of the plant.

Significance: Using IMC 0609, Significance Determination Process (SDP), and Appendix F, dated May 2, 2018, and Attachment 1, Fire Protection SDP Phase 1 Worksheet, and Attachment 2, Degradation Rating Guidance, both dated May 2, 2018, the inspectors determined that the safety significance of the finding was very low because of a low degradation rating, since the quantity of transient combustibles exceeded the ten pound limit for ordinary combustibles in a combustible control zone without a combustible permit and challenged the combustible loading calculation (P54–024) for the fire area 1AB–1g, of 150 pounds, but did not challenge the safe shutdown of the plant by affecting redundant trains.

Cross-cutting Aspect: The finding had a cross-cutting aspect in the Avoid Complacency component of the Human Performance cross-cutting area, which states that the licensee will recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Specifically, individuals involved did not recognize and plan for the possibility of mistakes and did not implement appropriate error reduction tools, in that they were not able to determine where the combustible control zone started and ended and, therefore, moved the two large laundry carts filled with ordinary combustibles into the combustible control zone rather than removing the small metal cart out of the combustible control zone as requested by the field supervisor. [H.12]

Enforcement:

Violation: License condition 2.C(6) requires the licensee to “implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as amended, and as approved through Safety Evaluation Report (NUREG–0887) dated May 1982 and supplemental numbers 1 through 10.” Perry Fire Protection Program, PAP–1910, Section 4.6.5.3e, Table 1 states in part that ordinary combustibles (loose) cotton, rags, paper, cardboard and anti-contamination clothing at step-off pads, up to 10 lbs do not require a combustible permit. Attachment 1 of PAP–1910 describes combustible control zones and defines the area outside the ECCS rooms on Auxiliary Building 574' as a combustible control zone.

Contrary to the above, on May 16, 2018, the licensee failed to implement and maintain in effect all provisions of the approved fire protection program. Specifically, the licensee failed

to control transient combustible materials in a designated combustible control zone within fire area 1AB–1g on Auxiliary Building elevation 574’ – 10” in accordance with the Fire Protection Program when its operators placed approximately 150 pounds of ordinary combustibles (loose) into the combustible control zone without an approved transient combustible permit and left those combustibles inside the combustible control zone unattended.

Disposition: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect from public disclosure. No proprietary information was documented in this report.

- On April 27, 2018, the inspector presented the radiation protection program inspection results to Mr. F. Payne, Plant Manager, and other members of the licensee staff.
- On July 11, 2018, the inspector presented the quarterly integrated inspection results to Mr. D. Hamilton, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01—Adverse Weather Protection

- CR 2018–04175; NRC ID: Items Identified during Outside Walkdown Prior to Wind Advisory; May 4, 2018
- Letter from Perry Site Vice President to Senior Vice President Chief Operations Officer of FENOC; Site Certification Letter for Summer Readiness; May 31, 2018
- NOP–OP–1003; Grid Reliability Protocol; Revision 9
- NOP–WM–2001; Work Management Scheduling, Assessment and Seasonal Readiness Processes; Revision 22
- ONI–ZZZ–1; Tornado or High Winds; Revision 29
- PAP–0102; Interface with the Transmission System Owner; Revision 18
- eSOMS Plant Narrative Log; May 4, 2018
- Perry Nuclear Power Plant; Summer Work List; June 1, 2018

71111.04—Equipment Alignment

- VLI–E21; Low Pressure Core Spray System; Revision 11
- VLI–E51; Reactor Core Isolation Cooling System; Revision 10
- VLI–M15; Annulus Exhaust Gas Treatment System (Unit 1); Revision 4
- VLI–M25/2; Control Room HVAC and Emergency Recirculation System; Revision 7

71111.05AQ—Fire Protection Annual/Quarterly

- CR 2018–04395; NRC Identified: Incomplete Secondary Search during Unannounced Fire Brigade Drill; May 10, 2018
- CR 2018–04561; NRC Identified: Transient Combustibles in a Combustible Control Zone; May 16, 2018

- CR 2018–04568; Combustible Control Zone on Aux Building 574' Elevation Exceeded PAP– 910 Quantities; May 16, 2018
- FENOC Plant Access Training; Revision 10
- FP–0CC; Control Complex; Revision 10
- FPI–0FH; Fuel Handling Building; Revision 5
- FPI–0IB; Intermediate Building; Revision 9
- FPI–1AB; Auxiliary Building Unit 1; Revision 3
- FPI–1DG; Diesel Generator Building; Revision 8
- FPI–A–A01; Preparation, Review, and Approval of Pre-Fire Plan and Fire Protection Instructions; Revision 5
- FPI–A–B02; Fire Drill Assessment; May 10, 2018
- FPI–A–B02; Fire Drill Critique; May 10, 2018
- FPI–A–B02; Fire Drill Planning Guide; Scenario FDBU–1125–051018; May 10, 2018
- FPI–A–B02; Fire Drill Record; May 10, 2018

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

- OTLC–30582018–07; PY–SGC1 Evaluated Simulator Scenario; Revision 0
- eSOMS Plant Narrative Logs; April 12, 2018
- eSOMS Plant Narrative Logs; April 23, 2018

71111.12—Maintenance Effectiveness

- CR 2018–04484; Replacement Elbow for HPCS Could not be Located; May 14, 2018
- NOP–LP–2020–01; Quality Control Receiving Inspection Report for 90 Degree Elbow, 4", Long Radius, SA234 Grade WPB, Schedule 120, ANSI B16.9; May 15, 2018
- NOP–MS–4001; Warehousing; Revision 11
- WO 200737508; High Pressure Core Spray Through Wall Leak in Minimum Flow Piping Elbow; June 12, 2018

71111.13—Maintenance Risk Assessments and Emergent Work Control

- EOP–03; Secondary Containment Control and Radioactive Release Control; Revision 7
- eSOMS Plant Narrative Logs; April 8 and 11, 2018
- eSOMS Plant Narrative Logs; May 16, 2018
- NOP–LP–2601; Procedure/Work Instruction Use and Adherence; Revision 6
- NOP–OP–1007; Risk Management; Revision 25
- NOP–OP–1007–01; De-Energized Inspection/Energized Testing of HPCS Pump Motor (4 yr PM); April 18, 2018
- NOP–OP–1007–01; Division 3 4.16KV Bus EH13 Degraded Voltage Channel Functional Test; April 18, 2018
- NOP–OP–1007–01; Risk Management Plan for Calibration/Replacement of 'A' APRM Power Supply Monitor Card; April 6, 2018
- NOP–OP–1007–01; Risk Management Plan for Replacement of Reactor Recirculation Hydraulic Power Unit 'b' subloop 1 Servo Valve Amphenol Connector Cable; April 20, 2018
- NOP–OP–1007–01; Risk Management Plan for Shuffling Fuel in Support of 1R17; April 18, 2018
- ONI–J11–2; Fuel Handling Accidents; Revision 16
- ONI–SPI E–1; Containment/Fuel Handling Building Closure; Revision 0
- ONI–ZZZ–7; Contingency Plans; Revision 8
- SOI–F11; Fuel Handling Platform; Revision 19

- SOI-F11; Fuel Handling Platform; Revision 20
- SVI-M40-T5340; Fuel Handling Building Integrity to Handle Irradiated Fuel; Revision 3
- WO 200747618; Simple Troubleshooting Plan - Reactor Recirculation Loop 'B' HPU Subloop B1; April 27, 2018
- WO 200747619; Replace Servo Control Valve 1B33F0601B Connector Cable; April 27, 2018

71111.15—Operability Determinations and Functionality Assessments

- CR 2018-03124; Division 2 Diesel Generator RTD Found Broken during Repairs; April 4, 2018
- CR 2018-04676; Identified Potential Requirement to Perform SVI-E22-T2680 Following Adjustments Made during Division 3 Diesel Generator Run; May 19, 2018
- CR 2018-04905; Control Rod Drive Pump 'A' Aux Oil Pump Degraded; May 28, 2018
- CR 2018-05504; ESW A Through-Wall Pipe Leak at RHR A HX Outlet Piping Aux 574' E; June 13, 2018
- eSOMS Plant Narrative Log; May 20, 2018
- NOP-OP-1009-01; Prompt Operability Determination for CR 2018-05504; Revision 0

71111.18—Plant Modifications

- ECP 18-0095-000; Design Change to Implement and Restore a Temporary Modification to Isolate the Automatic Trip Contacts for the Exciter Field Breaker, 1N41S0002, to Eliminate Indicated Ground on Non-Safety DC Bus D-1-B; April 24, 2018

71111.19—Post Maintenance Testing

- CR 2018-04676; Identified Potential Requirement to Perform SVI-E22-T2680 Following Adjustments Made during Div 3 Diesel Generator Run; May 19, 2018
- ICI-C-51-4; Average Power Range Monitor (APRM) Component Calibrations (C-C51-4); April 23, 2018
- IMI-E3-0023; Division 3 Diesel Generator Woodward Governor Maintenance; Revision 10
- PMI-0001; Preventive Maintenance of Vane Axial Fans; Revision 10
- SVI-C51-T0027A; APRM 'A' Channel Functional For 1C51-K605A; April 23, 2018
- SVI-C71-T5232; RPS - Electrical Power Monitoring Calibration/Functional for 1C71-S003B and 1C71-S003D; May 9, 2018
- SVI-E22-T1329; Division 3 HPCS Diesel Generator Functional Test; Revision 12
- SVI-E22-T2680; HPCS ECCS Integrated Test; May 20, 2018
- SVI-E22-T2680; HPCS ECCS Integrated Test; Revision 9
- WO 200516061; HPCS DG Governor Maintenance; May 20, 2018
- WO 200516196; Exercise and Service Breaker L2001; May 9, 2018
- WO 200516652; Reactor Protection System RPS MG Set 'B' De-Energized and Energized Motor Analysis; May 10, 2018
- WO 200517529; Perform Breaker L2003 Overhaul; May 11, 2018
- WO 200589327; Calibration Check, Power Supply Monitor Card; April 23, 2018
- WO 200591777; Verify Structural Integrity of the Diesel Generator Building Ventilation Supply Fan 2A; June 27, 2018
- WO 200679210; Replace Fullers Earth Filter/B33 HPU 'B' SL-1; April 27, 2018
- WO 200690610; Clean, Inspect, Lube 'B' RPS MG; May 8, 2018
- WO 200693315; Inspect Fittings and Replace Hoses on the Division 3 Governor; May 20, 2018

- WO 200736994; Reactor Protection System, Replace Logic Control Boards 1C71S0003B and 1C71S0003D; May 10, 2018
- WO 200737508; High Pressure Core Spray Through Wall Leak in Minimum Flow Piping Elbow; June 12, 2018

71111.22—Surveillance Testing

- SVI-B21-T0369-E; SRV And Low-Low Set Pressure Actuation Channel Functional For 1B21-N668E; May 24, 2018
- SVI-C41-T2001-A; Standby Liquid Control 'A' Pump and Valve Operability Test; June 27, 2018
- SVI-C51-T0030A; APRM 'A' Channel Calibration for 1C51-K605A; April 23, 2018
- SVI-E22-T1319; Diesel Generator Start and Load Division 3; May 11, 2018
- SVI-G41-T2001; Fuel Pool Cooling and Cleanup System Pump and Valve Operability Test; June 20, 2018
- WO 200682915; (184D) APRM 'A' Channel Calibration for 1C51-K605A; April 23, 2018
- WO 200703535; (31D) Diesel Generator Start and Load Division 3 Functional Testing; May 11, 2018
- WO 200718820; (92D) Fuel Pool Cooling and Cleanup System Pump and Valve Operability Test; June 21, 2018
- WO 200719638; (92D) SRV Pressure Actuation Channel 'E' Functional for 1B21-N668E; May 24, 2018

71114.06—Drill Evaluation

- Perry ERO Drill Scenario Guide; June 6, 2018; Revision 0

71124.03—In-Plant Airborne Radioactivity Control and Mitigation

- A Fuel Handling Building Ventilation Charcoal Absorber Operability Test and Plenum Inspection; December 11, 2016
- Bauer Air Compressor Maintenance Record; December 2017
- CR-2017-07426; Self Contained Breathing Apparatus (SCBA) Back Pack Fails Functional Test; July 14, 2017
- CR-2017-08937; MS-C-17-08-03 Respirator Inspection Administrative Issues; August 29, 2017
- CR-2017-12228; PDM Mask could not be Located during Monthly SCBA Inspections; December 14, 2017
- CR-2018-00114; SCBA Back Pack Fails Functional Test; January 5, 2018
- FHB Ventilation Exhaust Flow and Filter Operability Test-A; December 12, 2016
- Firehawk M7 SCBA Annual Inspection and Flow Test Records; 2017
- Firehawk M7 SCBA Inspection Records; First Quarter 2018
- Grade D Air Quality Records; 2017-2018
- HPI-G0007; Maintenance of Respiratory Protective Equipment and Operation of the Respiratory Cleaning/Issue Facilities; Revision 24
- NOP-OP-4301; Respiratory Protection Program; Revision 10
- NOP-OP-4310; Firehawk M7 SCBA; Revision 7
- Respiratory Protection Program Fit Test Records; Various Records
- Respiratory Protection Program Medical Qualification Records; Various Records
- Respiratory Protection Program Training Records; Various Records

- Self-Assessment; Pre-NRC Inspection, In-Plant Rad Controls and Mitigation and Occupational Dose Assessment; February 2018

71124.04—Occupational Dose Assessment

- 2017 External Dosimetry Data and Electronic Dosimeter Data; January 1 through April 30, 2017
- CR-2016-13555; TLD Recorded a High Shallow Dose Reading; November 18, 2016
- CR-2017-042441; Discrepancy Found in Annual Dose Report to NRC; April 14, 2017
- CR-2018-00662; TLD Recorded Higher than Normal Shallow Dose Reading; January 25, 2018
- Declared Pregnant Worker Records; Various Records
- Dosimetry Investigation/Dose Assessment; November 29, 2016
- Email from Mirion to Perry; April 25, 2018
- External Dosimetry Anomalous Record Reports; Various 2017 Records
- External Dosimetry Records; Various 2017 Records
- Generic Radiation Worker Training Lesson Plan; Revision 11
- Internal Dose Assessment Records; Various 2017 Records
- Mirion NVLAP Certification; June 30, 2017, to July 1, 2018
- Neutron Radiation Exposure Tracking Forms; April 24, 2018
- Neutron Radiological Surveys; Various Records
- NOP-OP-4202; Declared Pregnant Workers; Revision 1
- NOP-OP-4204; Special External Exposure Monitoring; Revision 10
- Personal Contamination Monitor Internal Sensitivity Test; July 26, 2016
- Portal Monitor Internal Sensitivity Test; April 5, 2016
- TLD to ED Comparison Data; Various 2017 Records

71151—Performance Indicator Verification

- CR 2018-04054; NRC PI Indicator for Safety System Functional Failures exceeds the 50% Green/White threshold; May 1, 2018
- NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 7
- NOBP-LP-4012; NRC Performance Indicators; Revision 6
- NOBP-LP-401204, Revision 3; Mitigating Systems Performance Index (MSPI) Unavailability Index (UAI) & Unreliability Index (URI) for Emergency AC Power Systems; April, 2017 through March, 2018
- NOBP-LP-4012-05, Revision 2; Mitigating Systems Performance Index (MSPI) Unavailability Index (UAI) & Unreliability Index (URI) for High Pressure Injection System (HPCS) & High Pressure Emergency Diesel Generator (EDG); April, 2017 through March, 2018
- NOBP-LP-4012-08, Revision 2; Safety System Functional Failure; April, 2017 through March, 2018

71153—Follow-Up of Events and Notices of Enforcement Discretion

- CR 2018-03357; ONI-C51 Entered for Unplanned Change in Reactor Power; May 3, 2018
- SOI-B33; Reactor Recirculation System; Revision 37