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

August 2, 2016

Mr. Anthony Vitale
Vice-President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043–9530

SUBJECT: PALISADES NUCLEAR PLANT - EVALUATIONS OF CHANGES, TESTS, AND EXPERIMENTS AND PERMANENT PLANT MODIFICATIONS BASELINE INSPECTION REPORT 05000255/2016009

Dear Mr. Vitale:

On July 15, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an Evaluations of Changes, Tests, and Experiments, and Permanent Plant Modifications inspection at your Palisades Nuclear Plant. The enclosed inspection report documents the inspection results, which were discussed on July 15, 2016, with members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

One NRC-identified finding of very-low safety significance (Green) was identified during this inspection. The finding was determined to involve a violation of NRC requirements. However, because of the very-low safety significance, and because the issue was entered into your Corrective Action Program, the NRC is treating the issue as Non-Cited Violation in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of the Non-Cited-Violation, 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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Palisades Nuclear Plant.

In addition, if you disagree with the cross-cutting aspect assigned to any finding 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 Regional Administrator, Region III, and the NRC Resident Inspector at the Palisades Nuclear Plant.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, “Public Inspections, Exemptions, Requests for Withholding,” of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert C. Daley, Chief
Engineering Branch 3
Division of Reactor Safety

Docket No. 50–255
License No. DPR–20

Enclosure:
IR 05000255/2016009

cc: Distribution via LISTSERV®

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-255
License No:	DPR-20
Report No:	05000255/2016009
Licensee:	Entergy Nuclear Operations, Inc.
Facility:	Palisades Nuclear Plant
Location:	Covert, MI
Dates:	June 27 – July 15, 2016
Inspectors:	A. Shaikh, Senior Reactor Inspector (Lead) I. Khan, Reactor Inspector L. Rodriguez, Reactor Inspector V. Petrella, Reactor Inspector L. Ward, Reactor Inspector
Approved by:	Robert C. Daley, Chief Engineering Branch 3 Division of Reactor Safety

Enclosure

SUMMARY

Inspection Report 05000255/2016009; 06/27/2016 - 07/15/2016; Palisades Nuclear Plant; Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications.

This report covers a 2-week announced baseline inspection on evaluations of changes, tests, and experiments, and permanent plant modifications. The inspection was conducted by Region III based engineering inspectors. One finding of very-low safety significance was identified by the inspectors. The finding was considered a Non-Cited Violation of U.S. Nuclear Regulatory Commission (NRC) regulations. The significance of most findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)". Cross-cutting aspects were determined using IMC 0310, "Aspects within the Cross-Cutting Areas." Findings and/or violations for which the SDP does not apply may be Green, or be assigned a severity level after NRC management review. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated July 9, 2013. 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: Barrier Integrity

Green: The inspectors identified a Severity Level IV, Non-Cited Violation of Title 10 of the *Code of Federal Regulations* (CFR), Part 50.59, "Changes, Tests, and Experiments," and an associated finding of very low safety significance (Green) for the licensee's failure to maintain records of a change in the facility which included a written evaluation that provided the bases for the determination that the change did not require a license amendment. Specifically, the licensee failed to have a written evaluation that provided the bases for why removal of the 8-hour operator rounds credited to detect a Spent Fuel Pool (SFP) dilution event from the Final Safety Analysis Report did not require a license amendment. The licensee entered this issue into their Corrective Action Program (CAP) as CR-PLP-2016-03055 and issued a standing order to log SFP level every eight hours as an immediate corrective action. The licensee's planned corrective actions include preparation of a 10 CFR 50.59 evaluation for the change.

The inspectors determined that the failure to perform a 10 CFR 50.59 evaluation for the change to the Final Safety Analysis Report which removed the eight hour operator rounds credited to detect a SFP dilution event was contrary to 10 CFR 50.59(d)(1), and was a performance deficiency. The inspectors determined the performance deficiency was more than minor, and a finding, because it was associated with the barrier integrity cornerstone attribute of Configuration Control and adversely affected the associated Cornerstone Objective of ensuring that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the removal of the 8-hour operator rounds is associated with the boron concentration reactivity control in the SFP and could adversely affect the fuel cladding's function to protect the public from radionuclide releases. In addition, the associated violation was determined to be more-than-minor because the inspectors could not reasonably determine that the changes would not have ultimately required NRC prior approval. The inspectors evaluated the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, Exhibit 3, for the Barrier Integrity cornerstone and were directed to further evaluate the significance of the finding using IMC 0609 Appendix M, "Significance Determination Process Using Qualitative

Criteria," dated April 12, 2012. The inspectors performed the qualitative evaluation described in IMC 0609, Appendix M, and determined the significance of the finding to be of very low safety significance (Green) by considering the availability of other measures the licensee had in place to detect a SFP dilution event. In accordance with Section 6.1.d of the NRC Enforcement Policy this violation is categorized as Severity Level IV because the resulting changes were evaluated by the SDP as having very-low safety significance (i.e., Green finding). The inspectors determined the associated finding had a cross-cutting aspect in the area of Human Performance because the licensee did not ensure their staff were adequately trained in the implementation of the 10 CFR 50.59 rule. Specifically, the licensee staff did not realize that a change which fundamentally alters the existing means of performing or controlling design functions (removal of the 8-hour operator rounds for detecting a SFP dilution event in lieu of an automatic alarm) is adverse and requires an evaluation. (Section 1R17.1.b) [H.9]

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications (71111.17T)

.1 Evaluation of Changes, Tests, and Experiments

a. Inspection Scope

The inspectors reviewed two safety evaluations performed pursuant to Title 10, *Code of Federal Regulations* (CFR), Part 50.59 to determine if the evaluation was adequate and that prior U.S. Nuclear Regulatory Commission (NRC) approval was obtained as appropriate. The inspectors also reviewed 25 screenings and/or applicability determinations where licensee personnel had determined that a 10 CFR 50.59 evaluation was not necessary. The inspectors reviewed these documents to determine if:

- the changes, tests, and experiments performed were evaluated in accordance with 10 CFR 50.59, and that sufficient documentation existed to confirm that a license amendment was not required;
- the safety issue requiring the change, tests or experiment was resolved;
- the licensee conclusions for evaluations of changes, tests, and experiments were correct and consistent with 10 CFR 50.59; and
- the design and licensing basis documentation was updated to reflect the change.

The inspectors used, in part, Nuclear Energy Institute (NEI) Document 96-07, "Guidelines for 10 CFR 50.59 Implementation," Revision 1, to determine acceptability of the completed evaluations, and screenings. The NEI document was endorsed by the NRC in Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," dated November 2000. The inspectors also consulted Part 9900 of the NRC Inspection Manual, "10 CFR Guidance for 10 CFR 50.59, Changes, Tests, and Experiments."

This inspection sample constituted 2 evaluations and 25 samples of screenings and/or applicability determinations as defined in Inspection Procedure 71111.17-04. The inspectors could not review the minimum sample size of 6 evaluations because the licensee only performed 2 evaluations during the triennial sample period.

b. Findings

Failure to Document 50.59 Evaluation for Removal of 8-Hour Operator Rounds from the Final Safety Analysis Report

Introduction: The inspectors identified a Severity Level IV, Non-Cited Violation (NCV) of 10 CFR 50.59, "Changes, Tests, and Experiments," and an associated finding of very-low safety significance (Green) for the licensee's failure to maintain records of a change in the facility which included a written evaluation that provided the bases for the determination that the change did not require a license amendment. Specifically, the

licensee failed to have a written evaluation that provided the bases for why removal of the 8-hour operator rounds credited to detect a Spent Fuel Pool (SFP) dilution event from the Final Safety Analysis Report (FSAR) did not require a license amendment.

Description: In 2001, the licensee submitted a license amendment request to the NRC to change Technical Specification (TS) 3.7.15, "Spent Fuel Pool (SFP) Boron Concentration," among other things. As part of the changes to the TS, the licensee completed a boron dilution analysis to support crediting soluble boron in the SFP in order to meet SFP subcriticality requirements. The licensee concluded, based on the analysis, that an unplanned or inadvertent event that would dilute the SFP to the point where it could challenge SFP subcriticality was not credible. The most limiting dilution scenario was determined to be a 1.5 inch fire protection hose flowing into the SFP. In this scenario, it would take over 9 hours to dilute the SFP boron concentration to the point where it could challenge SFP subcriticality. In 2002, the NRC issued Palisades License Amendment No. 207 which granted the licensee's requested TS change. The NRC Safety Evaluation Report (SER) for the approved license amendment concluded that the operating practice of an operator round every 8 hours, in combination with other measures, was adequate to detect a dilution event prior to the event challenging SFP subcriticality. The other measures credited in the SER to detect a SFP dilution event were: (1) the large volume of water required for a dilution event to challenge SFP subcriticality; (2) the flow rates and dilution times that could challenge SFP subcriticality; (3) the licensee's administrative requirements for maintaining the SFP; (4) the TS controlled SFP boron concentration; and (5) the 7-day SFP boron concentration sampling required by TS.

As a result of the license amendment, Section 9.11.3.4, "Prevention of Criticality During Transfer and Storage," and Section 14.19, "Fuel Handling Incident," of the FSAR were revised to include the following statement, "operating practice requires at least one operator round each 8-hour shift." In 2009, the licensee changed their operator shifts from 8-hour shifts to 12-hour shifts. The change adversely affected the credited operator rounds because they were no longer being performed at the frequency which had been credited to detect a SFP dilution event. In 2011, the licensee captured the discrepancy between the FSAR statement and the operating practice in CR-PLP-2011-06580.

On June 5, 2013, the licensee completed Licensing Basis Document Change Request 13-015 which removed from FSAR Section 9.11.3.4 and Section 14.19 the reference to the credited operator rounds each eight hour shift for detecting a SFP dilution event. This FSAR change was reviewed under Process Applicability Determination 13-0132 which incorrectly determined that a 10 CFR 50.59 evaluation was not required. Specifically, as discussed in Section 4.2.1.2 of NRC endorsed guidance document NEI 96-07, "Guidelines for 10 CFR 50.59 Implementation," a change which fundamentally alters the existing means of performing or controlling design functions (removal of the eight hour operator rounds for detecting a SFP dilution event) should be conservatively treated as adverse and screened in.

Process Applicability Determination 13-0132 attempted to justify the change was not adverse by crediting a SFP level alarm that would annunciate in the main control room to detect the SFP dilution event. The alarm is non-safety related and not seismically qualified. As discussed in section 4.2.1.2 of NEI 96-07, changes that include replacement of automatic action by manual action (or vice versa) should be conservatively treated as adverse and screened in. Therefore, the inspectors determined the licensee was required to perform a 10 CFR 50.59 evaluation to remove from the FSAR the 8-hour operator rounds credited to detect a SFP dilution event.

The removal of the 8-hour operator rounds from the FSAR adversely affects the licensing basis assumption that an unplanned or inadvertent event that would dilute the SFP to the point where it could challenge SFP subcriticality is not credible. Therefore, due to the incorrect change, the SFP criticality event might be a more credible event that could adversely impact the fuel cladding's ability to perform its barrier function.

The licensee captured the inspectors' concern in their Corrective Action Program as CR-PLP-2016-03055. The licensee's immediate corrective actions to address the safety concern included issuance of a standing order to log SFP level every 8 hours. The licensee's planned corrective actions include preparation of a 10 CFR 50.59 evaluation for the change. Although the issue involves an adverse change to how a SFP dilution event is detected, it is important to note that the licensee has the following additional measures that were not credited in the licensing basis to detect the event: (1) SFP high-level alarm; (2) additional SFP level instrumentation and annunciation installed in response to NRC Order EA-12-049 (FLEX); (3) fire protection pump start alarm on a loss of fire protection water inventory; (4) waste drain tank high-level alarm from spilled SFP inventory; (5) SFP level video monitor in the control room; and (6) operator rounds being performed each 12-hour shift.

Analysis: The inspectors determined that the failure to perform a 10 CFR 50.59 evaluation for the change to the FSAR which removed the 8-hour operator rounds credited to detect a SFP dilution event was contrary to 10 CFR 50.59(d)(1) and was a performance deficiency. Specifically, the licensee failed to provide the basis for why a license amendment was not required to remove the 8-hour operator rounds from the FSAR. The inspectors determined the performance deficiency was more-than-minor, and a finding, because it was associated with the barrier integrity cornerstone attribute of Configuration Control and adversely affected the associated Cornerstone Objective of ensuring that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the removal of the 8-hour operator rounds is associated with the boron concentration reactivity control in the SFP and could adversely affect the fuel cladding's function to protect the public from radionuclide releases.

In addition, the associated violation was determined to be more-than-minor because the inspectors could not reasonably determine that the changes would not have ultimately required NRC prior approval.

Violations of 10 CFR 50.59 are dispositioned using the traditional enforcement process instead of the significance determination process (SDP) because they are considered to be violations that potentially impede or impact the regulatory process. This violation is associated with a finding that has been evaluated by the SDP and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the associated finding.

The inspectors determined the finding could be evaluated using the SDP in accordance with Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Using Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, Table 2, the inspectors determined that the finding affected the

Barrier Integrity cornerstone. As a result, the inspectors evaluated the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, Exhibit 3, for the Barrier Integrity cornerstone. The inspectors answered "Yes" to Question D.4 in Exhibit 3, "Barrier Integrity Screening Questions," because the finding does affect the SFP soluble boron concentration during a spent fuel pool dilution event. As a result of answering "Yes" to Question D.4, the inspectors were required to evaluate the significance of the finding using IMC 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," dated April 12, 2012.

The inspectors performed the qualitative evaluation described in IMC 0609, Appendix M, and determined the significance of the finding to be of very-low safety significance (Green). The inspectors arrived at this conclusion by considering the availability of other credited measures to detect a SFP dilution event such as: (1) the large volume of water required for a dilution event to challenge SFP subcriticality; (2) the flow rates and dilution times that could challenge SFP subcriticality; (3) the licensee's administrative requirements for maintaining the SFP; (4) the TS controlled SFP boron concentration; and (5) the 7-day SFP boron concentration sampling required by TS. In addition, the inspectors also considered the following measures available to the licensee that were not credited in the licensing basis to detect a SFP dilution event: (1) SFP high-level alarm; (2) additional SFP level instrumentation and annunciation installed in response to NRC Order EA-12-049 (FLEX); (3) fire protection pump start alarm on a loss of fire protection water inventory; (4) waste drain tank high level alarm from spilled SFP inventory; (5) SFP level video monitor in the control room; and (6) operator rounds being performed each 12-hour shift.

In accordance with Section 6.1.d of the NRC Enforcement Policy this violation is categorized as Severity Level IV because the resulting changes were evaluated by the SDP as having very-low safety significance (i.e., Green finding).

The inspectors determined the associated finding had a cross-cutting aspect in the area of Human Performance because the licensee did not ensure their staff were adequately trained in the implementation of the 10 CFR 50.59 rule. Specifically, the licensee staff did not realize that a change which fundamentally alters the existing means of performing or controlling design functions (removal of the 8-hour operator rounds for detecting a SFP dilution event in lieu of an automatic alarm) is adverse and requires an evaluation. (Section 1R17.1.b) [H.9]

Enforcement: Title 10 CFR Part 50.59, "Changes, Tests, and Experiments," Section (d)(1) requires the licensee to maintain records of changes in the facility, of changes in procedures, and of tests and experiments made pursuant 10 CFR 50.59(c). These records must include a written evaluation which provides the bases for the determination that the change, test, or experiment does not require a license amendment.

Contrary to the above, since June 5, 2013, the licensee failed to maintain records of a change in the facility which included a written evaluation that provided the bases for the determination that the change did not require a license amendment. Specifically, the licensee failed to have a written evaluation that provided the bases for why removal of the 8-hour operator rounds credited to detect a SFP dilution event from the FSAR did not require a license amendment.

This violation is being treated as an NCV, consistent with Section 2.3.2.a of the Enforcement Policy because it was a Severity Level IV violation and was entered into the licensee's CAP as CR-PLP-2016-03055. The licensee's immediate corrective actions to address the safety concern included issuance of a standing order to log SFP level every 8 hours. The licensee's planned corrective actions include preparation of a 10 CFR 50.59 evaluation for the change. **(NCV 05000255/2016009-01; "Failure to Document 50.59 Evaluation for Removal of 8-Hour Operator Rounds from the Final Safety Analysis Report")**

.2 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed 15 permanent plant modifications that had been installed in the plant during the last 3 years. This review included in-plant walk-downs for the SFP. The modifications were selected based upon risk significance, safety significance, and complexity. The inspectors reviewed the modifications selected to determine if:

- the supporting design and licensing basis documentation was updated;
- the changes were in accordance with the specified design requirements;
- the procedures and training plans affected by the modification have been adequately updated;
- the test documentation as required by the applicable test programs has been updated; and
- post-modification testing adequately verified system operability and/or functionality.

The inspectors also used applicable industry standards to evaluate acceptability of the modifications. The list of modifications and other documents reviewed by the inspectors is included as an Attachment to this report.

This inspection constituted fifteen permanent plant modification samples as defined in Inspection Procedure 71111.17-04.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

.1 Routine Review of Condition Reports

a. Inspection Scope

The inspectors reviewed several corrective action process documents that identified or were related to 10 CFR 50.59 evaluations and permanent plant modifications. The inspectors reviewed these documents to evaluate the effectiveness of corrective actions related to permanent plant modifications and evaluations of changes, tests, and experiments. In addition, corrective action documents written on issues identified during

the inspection were reviewed to verify adequate problem identification, and incorporation of the problems into the corrective action system. The specific corrective action documents that were sampled and reviewed by the inspectors are listed in the Attachment to this report.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. P. Russell and other members of the licensee staff on July 15, 2016. The licensee personnel acknowledged the inspection results presented, and did not identify any proprietary content.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

A. Vitale, Site Vice President
P. Russell, Director, Site Engineering
D. Mannai, Fleet Senior Manager, Regulatory Assurance
B. White, Engineering Supervisor
J. Erickson, Senior Engineer, Regulatory Assurance
D. DePuydt, Senior Staff Engineer
A. Duluc, Engineer
S. Bunting, Engineer
B. Dotson, Regulatory Assurance Specialist

U.S. Nuclear Regulatory Commission

A. Nguyen, Senior Resident Inspector
J. Boettcher, Resident Inspector

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
IMC	Inspection Manual Chapter
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records
SDP	Significance Determination Process
SER	Safety Evaluation Report
SFP	Spent Fuel Pool
TS	Technical Specification

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

05000255/2016009-01	NCV	Failure to Document 50.59 Evaluation for Removal of Eight Hour Operator Rounds from the FSAR (Section 1R17.1.b)

Discussed

None

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of 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.

10 CFR 50.59 EVALUATIONS

Number	Description or Title	Revision
14-0023	EC 48940 – Defeat Dilution Water Interlock for Radwaste Discharge	0
12-0240	Replacement of 119 Motor Control Center (MCC) buckets in MCCs 1, 2, 7, and 8	0

10 CFR 50.59 SCREENINGS

Number	Description or Title	Revision
05-0505	EA-WJB-00-01 – Spent Fuel Pool Dilution Analysis	1
10-0064	EC 19367 – Adds Permanent Shielding to Various Sections of Piping and Valves Located in the East and West Safeguards Rooms	0
13-0006	EC 41860 – Lowers the Alarm Set point for LIA-1338, Level Indication Alarm for Service Water Bay Level	0
13-0020	EC 42310 – Provide Basis TMOD Eval for Procedurally Controlling the Use of a Mechanical Block on Out-of-Service EDG Vent Fan	0
13-0132	EC 44749 – Calculation “Spent Fuel Pool Dilution Analysis	0
13-0175	RT-202 – Control Room HVAC Heat Removal Capability	0
14-0196	Compensatory Measure to be Taken per CR-PLP-2014-04665 Operability Evaluation	0
14-0227	Compensatory Measures to be Taken per CR-PLP-2014-05549 Operability Evaluation	0
15-0200	EC 59222 – Design Requirements for the Addition of One New Vent on HPSI System Piping	0
16-0051	EC 63260 – Review and Re-Classify the Non-Pressure Boundary Components of CCW pump P-52C	0
16-0060	EC 63900 – Revise Process Applicability Determination from EC 58140	1
12-0368	Revise Procedure SOP-15 Service Water System	0
12-0382	Transition of SEP-SG-PLP-001 Steam Generator Program	0
13-0035	EC 42660 – Basis for Procedurally Controlled TMOD To Fill Component Cooling Surge Tank T-3 Using Fire Protection Water	0
13-0066	EC 41772 – Install Flood Barrier Sealant Within Conduits	0
13-0106	Revise Procedure FHSO-5 – Movement of Fuel Using SFP Overhead Crane	0
15-0207	Revise Procedure RT-36 – Containment Integrated Leak Rate Test	0
16-0006	EC 62697 – EDG Jacket Water Cooler Tube Plugging	0
12-0395	Loss of Preferred AC Bus EY-20	0
14-0247	Replace Cooling Tower Load Centers EB-71, EB-72, EB-73, EB-74, EB-75 and EB-76 with equivalent Units	0
13-0322	Install three Fluke (or equivalent) digital voltmeters to monitor the input signal to the permanently installed analog voltmeters	0

10 CFR 50.59 SCREENINGS

Number	Description or Title	Revision
14-0134	Revise calculation EA-ELEC-LDTAB-005, “Emergency Diesel Generators 1-1 & 1-2 Steady State Loading,” to Revision 10	0
15-0255	CALC-0098-0186 Rev 0, “Palisades Safety-related Pump Torque vs. Speed Characteristic Curves	0
13-0163	Calculation EA-ELEC-VOLT-01A Rev 2, “Dynamic Response of Emergency Diesel Generators and ECC Motor Acceleration Times” AND CALC-0098-0186 Rev 0, “Palisades Safety-related Pump Torque vs. Speed Characteristic Curves”	0

CORRECTIVE ACTION PROGRAM DOCUMENTS INITIATED DURING INSPECTION

Number	Description or Title	Date
2016-02978	Discovered that Engineering Change EC19367 was Closed Out Without Completing the As-Built Update to Fire Protection Calculation	06/29/2016
2016-03022	NRC Inspector Identified Leakage Into a Floor Drain that was Approximately 3 to 4 Feet from the SFP	06/30/2016
2016-03055	Issue Concerning Removal from the FSAR of a Statement Concerning Credit Take for Eight-Hour Operator Rounds	07/01/2016
2016-03196	Calculation EA-EC19367-01 Incorrectly Uses Values from EA-TSR-3997 as a Design Input	07/12/2016
2016-03227	PAD Log No. 16-0060 for EC 58140 and EC 63900 Should Have Provided Additional Clarification for Why the Change to the Facility was not Adverse and did not Require a 50.59 Evaluation	07/14/2016
2014-02089	A Snapshot Assessment of completed Process Applicability Determination (PAD) forms identified some documentation deficiencies in the PAD forms reviewed.	03/13/2014
2013-02349	Conduits T1433, T1437, T1440, T1441, T1442, T1443, T1444, T5253, T5254, T5255, and T5256 are associated with the incorrect room and fire area.	05/24/2013
2014-03918	Engineering Change (EC) 35095 provides design information for replacement of pressure indicator PI-0318. The Design Engineer ordered two (2) replacement indicators; the Planner performed a walkdown of the C-13 panel (located in the Control Room) and discovered that the old PI-0318 utilizes a barrier strip connection rather than a 25-pin cannon connection.	07/30/2014
2014-02544	An Engineering Change was completed under the Commercial Controls process without special authorization by the Engineering Director.	04/11/2014
2012-2944	The switch handle on the molded case breaker 52-645 Gas Dryer And Hydrogen Purity Blower broke off while operating the breaker with the handle on the breaker cubicle door.	04/21/2012
2012-00736	During performance of RT-71M "Class 2 IST for SIRWT," CK-ES3239 and CK-ES3240, SIRW TANK T-58 DISCHARGE CHECKS were found to have rusty hinge pins. CK-ES3240 has dry boric acid deposits on the top flange.	01/31/2012

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

Number	Description or Title	Date
2011-06580	FSAR Statement of Operating Practice Requiring at Least One Operator Round Each 8-Hour Shift is No Longer a True Statement	12/01/2011
2014-02929	EC 47340 – AFW Connection Fails to Discuss its Effect on the ASME Section XI Pressure Testing Program	05/08/2014
2014-03014	An Unsealed Penetration Exists in the Wall Between the Control Room Viewing Gallery and the TSC	05/13/2014
2014-04158	Safety Classification and Procurement Quality Level of Components	08/20/2014
2014-05153	A Void was Identified at ABS Point 20 (HPSI Train 2)	10/27/2014
2014-05549	Identifies that Gas Will Likely Collect at an Inaccessible Point of the HPSI System due to Nitrogen Coming Out of Solution	11/19/2014
2015-03540	Identified that Change Made by the February 2002 Revision of Palisades Technical Specification Basis 3.7.7 CCW was not Reflected in Other Palisades Documentation	08/26/2015
2015-03634	Legacy Error in the Calculation of Record for E-58 Support Structure	09/01/2015
2016-00725	EC 58140 and its PAD did not Reconcile the Modification with FSAR Section 7.3.3.2	02/09/2016
2016-02978	EC 19367 Closed Out Without Completing As-built Update to Fire Protection Calculation	06/29/2016
2016-03022	During MOD/50.59 Inspection Field Walk-Down, NRC Inspector Identified Leakage Into Floor Drain Approximately 3-4 Feet From the Spent Fuel Pool	06/30/2016
2016-03055	NRC Inspector Identified Issue Concerning Removal of Eight Hour Operator Rounds From FSAR	07/01/2016
2016-03227	NRC Inspector Identified Condition Concerning Process Applicability Determination for Permanent Shielding Installed on Letdown Heat Exchanger E-58	07/14/2016
2016-03196	“Structural Evaluation of Piping in The Safeguards Rooms for Addition of Permanent Shielding to The Piping and Valves”, Incorrectly Used Design Input Values	07/12/2016

DRAWINGS

Number	Description or Title	Revision
M-203, Sheet 2	Piping & Instrument Diagram Safety Injection Containment Spray and Shutdown Cooling System	28
M-232, Sheet 1	Containment Penetrations	46
P011-451830-N12	45° Incline Bellows Seal Globe Valve	C
EC 19367	Installation of Permanent Shielding on Valves and Piping in Safeguards Rooms	0
EC 41860	Changing Setpoint of LIA-1338, Level Indication Alarm for Service Water Bay Level	0
EC 48940	Defeat Dilution Water Interlock for Radwaste Discharge	0
EC 53181	Safety Classification and FSAR Updates for Components Around the T-2 Condensate Storage Tank	0

DRAWINGS

Number	Description or Title	Revision
EC 58140	Install Permanent Shielding on the Letdown Heat Exchanger E-58	0
EC 59222	Design Requirements for the Addition of One New Vent on HPSI System Piping	0
EC 63260	Re-Classification of Component Cooling Water (CCW) Pump P-52C Non-pressure Boundary Subcomponents and Update of Design and Licensing Basis Documents	0
EC 63900	Discuss Impact of Permanent Shielding on Letdown Heat Exchanger on Containment Isolation Radiation Monitors	0
EC 43963	Alternate Packing Material for Service Water Pumps P-7B and P-7C	0
EC 9095	Alternate Containment Spray Pump Bearing Housing Oil Drain Plug Design	0
EC 48191	Replace K-6A/B Diesel Generator Heat Exchanger Service Water Discharge Temperature Meter TI-0832	0
EC 56275	Abandon Cask Handling Crane Original Hoist	0
EC 36875	Replace Right Channel and Left Channel Containment High Pressure and High Radiation Containment Isolation Circuit Fuses	1
19401	Replace the analog voltmeters EVI-0001, EVI-0002, EVI-0003 and EVI-0008	0
13007	Replace the obsolete Oscillator (X2), Synchronizing (X5) and Auto Retransfer (X202) circuit boards of Inverters ED-06, ED-07, ED-08, and ED-09.	2
48081	SET POINT CHANGE FOR PS-1479, PS-1480, PS-1489, AND PS-1490 PRESSURE SWITCHES	0
17790	Install Fluke (or equivalent) DVM on 2400V Meters EVI-0001, EVI-0002, EVI-0008	3
48601	Replace Cooling Tower Load Centers EB-71, EB-72, EB-73, EB-74, EB-75 and EB-76 with equivalent units	0

OTHER DOCUMENTS

Number	Description or Title	Date or Revision
EA-EC19367-01	Structural Evaluation of Piping in the Safeguards Rooms for the Addition of Permanent Shielding to the Piping and Valves	0
EA-FPP-03-001	Analysis of Combustible Loading at Palisades Nuclear Plant	3
EA-WJB-00-01	Spent Fuel Pool Dilution Analysis	1 and 2
LBDCR 13-015	Delete from the UFSAR Any Specific Statements Regarding Operator Rounds at 8 hr. Intervals	05/23/2013
LS-0924	Spent Fuel Pool Level Instrument Calibration Sheet	10/16/2003
WR 339662	Place Grout in Unsealed Fire Barrier Penetration in Wall	05/13/2014

PROCEDURES

Number	Description or Title	Revision
ARP-7	Auxiliary Systems Scheme EK-11 (C-13)	95
ARP-8	Safeguards Safety Injection and Isolation Scheme EK-13 (EC-13)	81
CH 6.21	Radioactive Liquid Release	9
RO-146	Comprehensive Pump Test Procedure – Component Cooling Water Pumps P-52A, P-52B, and P-52C	8
SOP-17A	Clean Radioactive Waste System	61
SOP-17B	Dirty Radioactive Waste System	73
SOP-22	Emergency Diesel Generators	69
PLP-RPT-13-00015	CALC-Palisades Stuck Fuel Assemblies Safety Related	0
PLP-RPT-13-00016	Palisades Fuel Assembly Lifting Load Analysis	0
SOP-16	Component Cooling Water System	47
RT-36	Containment Integrated Leak Rate Test	21
ONP-24.2	Loss of Preferred AC Bus EY-20	26
AOP-13	Loss of Preferred AC Bus EY-20	1

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, “Public Inspections, Exemptions, Requests for Withholding,” of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert C. Daley, Chief
Engineering Branch 3
Division of Reactor Safety

Docket No. 50–255
License No. DPR–20

Enclosure:
IR 05000255/2016009

cc: Distribution via LISTSERV®

DISTRIBUTION:
Jeremy Bowen
RidsNrrPMPalisades Resource
RidsNrrDorlLpl3-1 Resource
RidsNrrDirsIrib Resource
Cynthia Pederson
Darrell Roberts
Richard Skokowski
Allan Barker
Carole Ariano
Linda Linn
DRPIII
DRSIII
ROPreports.Resource@nrc.gov

ADAMS Accession ML16217A081
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII		RIII		RIII		RIII	
NAME	AShaikh:cl		RDaley					
DATE	08/02/16		08/02/16					

OFFICIAL RECORD COPY