



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

February 11, 2016

Mr. Oscar A. Limpias
Vice President-Nuclear and CNO
Nebraska Public Power District
Cooper Nuclear Station
72676 648A Avenue
P.O. Box 98
Brownville, NE 68321

**SUBJECT: COOPER NUCLEAR STATION – NRC INTEGRATED INSPECTION REPORT
05000298/2015004 AND 07200066/2015001**

Dear Mr. Limpias:

On December 31, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Cooper Nuclear Station. On January 7, 2016, the NRC inspectors discussed the results of this inspection with you and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented two findings of very low safety significance (Green) in this report. Both of these findings involved violations of NRC requirements. Additionally, NRC inspectors documented one Severity Level IV violation with no associated finding. The NRC is treating these violations as non-cited (NCVs) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at the Cooper Nuclear Station.

If you disagree with a cross-cutting aspect assignment 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 IV; and the NRC resident inspector at the Cooper Nuclear Station.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public

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Sincerely,

/RA/

Greg Warnick, Branch Chief
Project Branch C
Division of Reactor Projects

Docket Nos: 50-298, 72-066
License No. DPR-46

Enclosure: Inspection Report 05000298/2015004
and 0700066/2015001
w/ Attachment: Supplemental
Information

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Letter to Oscar A. Limpias from Greg Warnick dated February 11, 2016

SUBJECT: COOPER NUCLEAR STATION – NRC INTEGRATED INSPECTION REPORT
05000298/2015004 AND 07200066/2015001

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000298 and 07200066

License: DPR-46

Report: 05000298/2015004 and 07200066/2015001

Licensee: Nebraska Public Power District

Facility: Cooper Nuclear Station

Location: 72676 648A Ave
Brownville, NE

Dates: October 1 through December 31, 2015

Inspectors: P. Voss, Senior Resident Inspector
M. Hayes, Acting Senior Resident Inspector
J. Robbins, Acting Senior Resident Inspector
C. Henderson, Resident Inspector
P. Elkmann, Senior Emergency Preparedness Inspector
S. Garchow, Senior Operations Engineer
J. Kirkland, Senior Operations Engineer
B. Larson, Senior Operations Engineer
E. Simpson, Dry Fuel Storage Inspector

Approved By: Greg Warnick
Chief, Project Branch C
Division of Reactor Projects

SUMMARY

IR 05000298/2015004, 07200066/2015001; 10/01/2015 – 12/31/2015; Cooper Nuclear Station; Adverse Weather Protection, Equipment Alignment, Maintenance of Emergency Preparedness.

The inspection activities described in this report were performed between October 1 and December 31, 2015, by the resident inspectors at the Cooper Nuclear Station and inspectors from the NRC's Region IV office and other NRC offices. Two findings of very low safety significance (Green) are documented in this report. Both of these findings involved violations of NRC requirements. Additionally, NRC inspectors documented in this report one Severity Level IV violation with no associated finding. The significance of inspection findings is indicated by their color (Green, White, Yellow, or Red), which is determined using Inspection Manual Chapter 0609, "Significance Determination Process." Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Aspects within the Cross-Cutting Areas." Violations of NRC requirements are dispositioned in accordance with the NRC Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

Cornerstone: Mitigating Systems

- Green. The inspectors identified a non-cited violation of Technical Specification 5.5.9, "Diesel Fuel Oil Testing Program," for the licensee's failure to establish an emergency diesel generator fuel oil cloud point acceptance criterion in accordance with ASTM D975, "Standard Specification for Diesel Fuel Oils." Specifically, the diesel fuel oil cloud point acceptance criterion of $\leq 32^{\circ}\text{F}$ specified in the licensee's diesel fuel oil testing program procedures was not in accordance with the ASTM limit of $\leq 3.2^{\circ}\text{F}$ and was not technically justified as described by the standard. Corrective actions included development of an evaluation which concluded that the appropriate acceptance criterion was $\leq 15^{\circ}\text{F}$ based on the most limiting day tank room temperatures during accident conditions; verification that the cloud point of the fuel onsite at the time was 8.6°F , which met this criterion; and establishment of compensatory measures to monitor and administratively control the cloud point until fuel oil program procedures could be revised. The licensee entered this deficiency into the corrective action program as Condition Reports CR-CNS-2015-06745, CR-CNS-2015-06717, CR-CNS-2015-06718, and CR-CNS-2015-7150.

The licensee's failure to establish a diesel fuel cloud point acceptance criterion in accordance with ASTM D975, in violation of Technical Specification 5.5.9, was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the procedure quality attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, failure to establish a diesel fuel cloud point acceptance criterion in accordance with ASTM D975 could result in formation of wax crystals affecting the capability to transfer the fuel oil from the storage tanks to the emergency diesel generator engine cylinders. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Finding At-Power," dated June 19, 2012, inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time; and (4) did not

represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. The finding had a cross-cutting aspect in the area of human performance associated with documentation because the licensee failed to create and maintain complete, accurate, and up-to-date documentation for the worst case temperature at which the emergency diesel generator fuel oil would be stored [H.7]. (Section 1R01)

Cornerstone: Emergency Preparedness

- Green. The inspectors identified a non-cited violation of 10 CFR 50.54(t)(2), for the licensee's failure to include an evaluation of the adequacy of the interfaces with state and local governments in a review of emergency preparedness program elements in Audit 2014-06, dated November 7, 2014. Specifically, the licensee failed to include an evaluation of this interface when audit personnel did not provide offsite officials with an opportunity to provide their view of the adequacy of the interface to the audit team. Corrective actions included development of lessons learned for future audits and reengagement with state and local governments to assure adequate interface existed during the most recent emergency preparedness audits. The licensee entered this deficiency into the corrective action program as Condition Report CR-CNS-2015-06403.

The failure to perform an evaluation for adequacy of the interface with state and local governments was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the offsite emergency preparedness attribute of the Emergency Preparedness Cornerstone, and affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the ability to implement adequate measures to protect the health and safety of the public could be affected if communication and coordination problems between the licensee and offsite agencies are not detected and corrected. The finding was evaluated using Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015, and was determined to have very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded planning standard function. The finding had a cross-cutting aspect in the area of problem identification and resolution associated with evaluation because the licensee failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the audit team failed to fully evaluate the potential for problems to exist with the adequacy of the interface with state and local governments [P.2]. (Section 1EP5)

Cornerstone: Miscellaneous

- SLIV. The inspectors identified two examples of a non-cited violation of 10 CFR 50.71(e), "Maintenance of Records, Making Reports," for the licensee's failure to update the Updated Safety Analysis Report for the reactor equipment cooling system and fire protection program to ensure that the report contained the latest information. Specifically, licensing personnel failed to update the Updated Safety Analysis Report when implementing License Amendment 232, in May 2009, for changes associated with the reactor equipment cooling system and again in April 2015, when the licensee implemented License Amendment 248 for the fire protection program transition to meet the requirements of NFPA-805. The licensee initiated corrective actions to update the affected sections, and initiated an extent of

condition evaluation to identify other similar portions of the Updated Safety Analysis Report that may not have been updated. The licensee entered these deficiencies into the corrective action program as Condition Reports CR-CNS-2015-05948, CR-CNS-2015-06240, and CR-CNS-2015-06483.

The licensee's failure to update the Updated Safety Analysis Report for the reactor equipment cooling system and fire protection program to ensure that the information included within the report contained the latest information developed in accordance with 10 CFR 50.71(e) was a performance deficiency. This performance deficiency was screened using Inspection Manual Chapter 0612, Appendix B, "Issue Screening," dated September 7, 2012, and was determined to be minor in the Reactor Oversight Process, and therefore, it was not evaluated as a finding using the significance determination process. In accordance with the NRC Enforcement Policy, the performance deficiency was evaluated using the traditional enforcement process because it had the potential for impacting the NRC's ability to perform its regulatory function. Under the traditional enforcement process, this performance deficiency was determined to be more than minor and a Severity Level IV violation because it was consistent with the example in Paragraph 6.1.d.3 of the NRC Enforcement Policy, dated February 4, 2015. Specifically, the licensee failed to update the Updated Safety Analysis Report as required by 10 CFR 50.71(e), but the lack of up-to-date information has not resulted in any unacceptable change to the facility or procedures. No cross-cutting aspect was assigned to this violation because there was no Reactor Oversight Process finding associated with the performance deficiency. (Section 1R04)

PLANT STATUS

Cooper Nuclear Station began the inspection period at full power on October 1, 2015. On December 30, 2015, reactor power was lowered to approximately 30 percent in order to repair a fan coil unit located in the main steam line tunnel. On December 31, 2015, reactor power was returned to 100 percent and remained there for the remainder of the reporting period.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

On December 16, 2015, the inspectors completed an inspection of the station's readiness for seasonal extreme weather conditions. The inspectors reviewed the licensee's adverse weather procedures for seasonal low temperatures and evaluated the licensee's implementation of these procedures. The inspectors verified that prior to the onset of cold weather, the licensee had corrected weather-related equipment deficiencies identified during the previous cold weather season.

The inspectors selected one risk-significant system that was required to be protected from cold weather:

- Fire protection diesel driven fire pumps, emergency diesel generators, and supplemental diesel generator fuel oil systems

The inspectors reviewed the licensee's procedures and design information to ensure the systems would remain functional when challenged by seasonal extreme cold weather conditions. The inspectors verified that operator actions described in the licensee's procedures were adequate to maintain readiness of these systems. The inspectors walked down portions of these systems to verify the physical condition of the adverse weather protection features.

These activities constituted one sample of readiness for seasonal adverse weather, as defined in Inspection Procedure 71111.01.

b. Findings

Introduction. The inspectors identified a Green, non-cited violation of Technical Specification (TS) 5.5.9, "Diesel Fuel Oil Testing Program," for the licensee's failure to establish an emergency diesel generator (EDG) fuel oil cloud point acceptance criterion in accordance with American Society for Testing and Materials (ASTM) D975, "Standard Specification for Diesel Fuel Oils." Specifically, the EDG fuel oil cloud point acceptance criterion of $\leq 32^{\circ}\text{F}$ in the licensee's diesel fuel oil testing program procedures was not in accordance with the ASTM limit of $\leq 3.2^{\circ}\text{F}$ and was not technically justified as described by the standard.

Description. While conducting a review of readiness for seasonal extreme cold weather conditions for the EDG 1 and 2 diesel fuel oil system, the inspectors noted Station Procedures 6.DG.604, "Diesel Fuel Oil Storage Tank, Bunker A and B, Quality Test," Revision 22, and 6.DG.605, "Diesel Fuel Oil Incoming Truck Sampling," Revision 21, contained diesel fuel cloud point acceptance criteria of $\leq 32^{\circ}\text{F}$. The licensee's procedures stated the requirements for the EDG fuel cloud point were identified in NRC Regulatory Guide 1.137, "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, dated October 1979. The licensee's procedures further stated that the EDG fuel cloud point should be \leq to the 3-hour minimum soak temperature or the minimum temperature at which fuel oil would be maintained during the period of time it was stored, and that due to the fact that diesel fuel oil storage was below ground or in an enclosed building, temperature at the worst case was 32°F (0°C). This statement appeared to form the basis for why $\leq 32^{\circ}\text{F}$ was chosen as the EDG fuel oil cloud point acceptance criterion.

The inspectors reviewed TS 5.5.9, TS 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air," and the associated Technical Specification Basis Document. From the review of TS 5.5.9, the inspectors determined that the licensee's EDG fuel oil testing program was required to include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. TS Surveillance Requirement (SR) 3.8.3.3 implemented the requirements of the TS 5.5.9. TS Basis Document 3.8.3 committed the licensee to Regulatory Guide 1.137, Revision 1, dated October 1979; ANSI N195, Appendix B, dated 1976; and ASTM D975 Revision 1989a. TS Basis Document 3.8.3 stated that following the initial new fuel oil sample, the new fuel oil would be analyzed to establish that the other properties specified in Table 1 of ASTM D975, Revision 1989a were met. The TS Basis Document further stated that these additional analyses were required by TS 5.5.9 to be performed within 31 days following addition of new fuel oil. Additionally, License Amendment 165 committed the licensee to following the guidance specified in ASTM D975, Revision 1989a.

ASTM D975, Table 1, "Detailed Requirements for Diesel Fuel Oils," and Appendix X2, "Tenth Percentile Minimum Ambient Temperatures for the United States (except Hawaii)," provided the guidance for establishing diesel fuel oil cloud point acceptance criteria. ASTM D975 established the cloud point as, "the temperature at which a cloud or haze of wax crystals appears in the oil under prescribed test conditions, which generally relates to the temperature at which wax crystals begin to precipitate from the oil in use. When such a cloud appears, the capability to transfer the fuel oil from the storage tanks to the EDG's engine cylinders might be degraded because of wax crystals clogging fuel oil filters and plating out on the walls of the fuel oil piping." The ASTM standard further specified, "satisfactory operation [at low ambient temperatures] should be achieved in most cases if the cloud point is specified at 6°C (10°F) or higher above the tenth percentile minimum ambient temperature for the area in which ambient temperatures for U.S. locations are shown in Appendix X2. This guidance is general, and some equipment designs or operation may allow higher or require lower cloud point fuels. Appropriate low temperature operability properties should be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures."

ASTM D975 further stated the minimum tenth percentile temperature for the State of Nebraska was -7°F , and after adding 6°C (or 10°F), the resulting ASTM standard acceptance value would have been 3.2°F . The inspectors noted that the design basis

outside ambient cold-weather temperature was -5°F from the review of the station's Updated Safety Analysis Report (USAR). The inspectors further observed that during a loss of offsite power, when the licensee would be relying on the EDGs, heating to the EDG room would be lost. From the above information the inspectors questioned whether diesel fuel oil cloud point acceptance criteria in Station Procedures 6.DG.604 and 6.DG.605 were in accordance with ASTM D975. The licensee entered these deficiencies into their corrective action program as Condition Reports CR-CNS-2015-06475, CR-CNS-2015-06717, and CR-CNS-2015-06718.

The licensee conducted an operability assessment and evaluation and determined that the appropriate diesel fuel cloud point acceptance criterion was $\leq 15^{\circ}\text{F}$ based on the most limiting EDG day tank room temperature being 4.2°F . This room temperature was determined by station evaluation NEDC 15-086, "Diesel Generator Room and Day Tank Room Temperature on a Design Winter Day," Revision 0, that was developed to support operability of EDG 1 and 2. The licensee declared EDG 1 and 2 operable and established compensatory measures to monitor diesel fuel cloud point until Station Procedures 6.DG.601, "Diesel Fuel Oil Day Tank Particulate Contamination Test," Revision 16, 6.DG.604, and 6.DG.605 could be updated to reflect the newly developed diesel fuel cloud point acceptance criteria. In addition, the licensee verified the actual cloud point of the diesel fuel oil onsite at the time was 8.6°F , which was within the updated diesel fuel oil acceptance criteria. The licensee entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2015-07150.

Analysis. The licensee's failure to provide an EDG fuel cloud point acceptance criterion in accordance with ASTM D975, Revision 1989a, in violation of Technical Specification 5.5.9, was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the procedure quality attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, failure to establish an EDG fuel cloud point acceptance criterion in accordance with ASTM D975 could result in formation of wax crystals affecting the capability to transfer the fuel oil from the storage tanks to the EDG engine cylinders. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, the inspectors determined that the finding was of very low safety significance (Green) because the finding: (1) was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; (2) did not represent a loss of system and/or function; (3) did not represent an actual loss of function of at least a single train for longer than its technical specification allowed outage time; and (4) did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program. The finding had a cross-cutting aspect in the area of human performance associated with documentation because the licensee failed to create and maintain complete, accurate, and up-to-date documentation for the worst case temperature at which the emergency diesel generator fuel oil would be stored [H.7].

Enforcement. Technical Specification 5.5.9, "Diesel Fuel Oil Testing Program," requires in part, that, "a diesel fuel oil testing program to implement required testing of both new and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM

standards.” Contrary to the above, prior to November 24, 2015, the licensee failed to establish a diesel fuel oil testing program which included sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM standards. Specifically, the licensee established fuel oil program procedures which included an acceptance criterion of $\leq 32^{\circ}\text{F}$ for the EDG fuel oil cloud point, a value that was not in accordance with the limit of $\leq 3.2^{\circ}\text{F}$ as provided in the applicable ASTM standard, ASTM D975, Revision 1989a, and was not technically justified as described by the standard. Corrective actions included development of an engineering evaluation which provided a technical justification that the appropriate acceptance criterion was $\leq 15^{\circ}\text{F}$ based on the most limiting day tank room temperatures during accident conditions; verification that the cloud point of the fuel oil onsite at the time was 8.6°F , which met this criterion; and establishment of compensatory measures to monitor and administratively control the cloud point until fuel oil program procedures could be revised. This violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy, because it was of very low safety significance (Green) and was entered into the licensee’s corrective action program as Condition Reports CR-CNS-2015-06475, CR-CNS-2015-06717, CR-CNS-2015-06718, and CR-CNS-2015-07150. (NCV 05000298/2015004-01, “Diesel Fuel Oil Cloud Point Acceptance Criteria not in accordance with ASTM D975, Revision 1989a”)

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

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

- October 6, 2015, Standby liquid control system trains A and B
- October 28, 2015, Service water system backup for reactor equipment cooling
- December 15, 2015, Emergency diesel generator 1 and 2 fuel oil system

The inspectors reviewed the licensee’s procedures and system design information to determine the correct lineup for the systems. They visually verified that critical portions of the systems or trains were correctly aligned for the existing plant configuration.

These activities constituted three partial system walk-down samples, as defined in Inspection Procedure 71111.04.

b. Findings

Introduction. The inspectors identified two examples of a Severity Level IV, non-cited violation of 10 CFR 50.71(e), “Maintenance of Records, Making of Reports,” for the licensee’s failure to update the Updated Safety Analysis Report (USAR) for the reactor equipment cooling (REC) system and fire protection program to ensure that the information included within the report contained the latest information. Specifically, licensing personnel failed to update the USAR when implementing License Amendment 232, in May 2009, for changes associated with the REC system and again

in April 2015, when the licensee implemented License Amendment 248 for the fire protection program transition to meet the requirements of NFPA-805.

Description. The inspectors reviewed the Cooper Nuclear Station's USAR, TS Basis, and License Amendment 232. The inspectors noted some contradictory information within the USAR, Technical Specification Bases, and License Amendment 232 associated with a loss of the REC system. Specifically, USAR Section X-6.5.3, "Accident and Transient Operations," for the REC system appeared to be inconsistent with TS Basis 3.7.3, "Reactor Equipment Cooling System," and License Amendment 232.

USAR, Section X-6.5.3, stated that service water could be intertied to the REC system to provide a backup cooling supply to the emergency core cooling system (ECCS) pump rooms in a post loss of coolant accident environment after the REC system would operate for seven days. The service water backup function would be utilized if the REC system became unavailable. The service water backup feature was credited after seven days to ensure satisfactory ECCS pump cooling for a 30-day design basis loss of coolant accident. The inspector identified that this information was contradictory to License Amendment 232 and TS Basis 3.7.3. License Amendment 232 was issued on March 20, 2009, to incorporate the use of the service water backup system for the loss of the REC system within the technical specifications. This amendment changed the REC system technical specifications to allow backup service water to be credited earlier than seven days. This amendment also credited backup service water system availability for 30 days during an accident, rather than the previously credited 23 days, and included a one-hour time requirement to implement the service water backup system. This discrepancy represented one example of the licensee's failure to update the USAR.

The licensee entered this deficiency into the corrective action program as Condition Report CR-CNS-2015-05948. The licensee implemented corrective actions to update the USAR for the next scheduled update, and identified additional sections of the USAR that were not updated after License Amendment 232 was issued on March 20, 2009. Additionally, the licensee initiated Condition Report CR-CNS-2015-06240, which prompted an extent of condition review to identify other potential areas of the USAR that were not updated after implementing a license amendment within the past three years. As a result of the extent of condition review, the licensee identified that two sections of the USAR were not updated for License Amendment 248, issued on April 29, 2014, which implemented the NFPA-805 fire protection program. Specifically, two previous fire analyses were incorrectly referenced instead of the current NFPA-805 fire analysis. This discrepancy represented a second example of the licensee's failure to update the USAR. The licensee entered this deficiency into the corrective action program as Condition Report CR-CNS-2015-06483.

Analysis. The licensee's failure to update the USAR for the REC system and fire protection program to ensure that the information included within the report contained the latest information developed in accordance with 10 CFR 50.71(e) was a performance deficiency. This performance deficiency was screened using Inspection Manual Chapter 0612, Appendix B, "Issue Screening," dated September 7, 2012, and was determined to be minor in the Reactor Oversight Process because the inspectors did not identify any plant procedures or technical specification documents that were not updated for License Amendments 232 and 248, and therefore, it was not evaluated as a finding

using the significance determination process. In accordance with the NRC Enforcement Policy, the performance deficiency was evaluated using the traditional enforcement process because it had the potential for impacting the NRC's ability to perform its regulatory function. Under the traditional enforcement process, this performance deficiency was determined to be more than minor and a Severity Level IV violation because it was consistent with the example in Paragraph 6.1.d.3 of the NRC Enforcement Policy, dated February 4, 2015. Specifically, the licensee failed to update the USAR as required by 10 CFR 50.71(e), but the lack of up-to-date information has not resulted in any unacceptable change to the facility or procedures. No cross-cutting aspect was assigned to this violation because there was no Reactor Oversight Process finding associated with the performance deficiency.

Enforcement. Title 10 CFR 50.71, "Maintenance of Records, Making Reports," Section (e), requires, in part, that licensees, "shall update periodically the Final Safety Analysis Report (FSAR) originally submitted as part of the application for the license, to assure that the information included in the report contains the latest information developed." Contrary to the above, in May 2010 and again in May 2015, the licensee failed to update periodically the FSAR originally submitted as part of the application for the license, to assure that the information included in the report contained the latest information developed. Specifically, the licensee failed to update the current revision of the FSAR (USAR) within six months after their refueling outages to reflect License Amendment 232 for the loss of the REC system and License Amendment 248 for the transition to the NFPA-805 fire protection program. The licensee initiated corrective actions to update the affected sections, and initiated an extent of condition evaluation to identify other similar portions of the USAR that may not have been updated. This violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy, because it was not repetitive or willful, it was a Severity Level IV violation, and it was entered into the licensee's corrective action program as Condition Report CR-CNS-2015-05948, CR-CNS-2015-06240, and CR-CNS-2015-06483. (NCV 05000298/2015004-02, "Failure to Update the Updated Safety Analysis Report")

.2 Complete Walkdown

a. Inspection Scope

On October 27, 2015, the inspectors performed a complete system walk-down inspection of the reactor equipment cooling system. The inspectors reviewed the licensee's procedures and system design information to determine the correct reactor equipment cooling system lineup for the existing plant configuration. The inspectors also reviewed outstanding work orders, open condition reports, in-process design changes, temporary modifications, and other open items tracked by the licensee's operations and engineering departments. The inspectors then visually verified that the system was correctly aligned for the existing plant configuration.

These activities constituted one complete system walk-down sample, as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

Quarterly Inspection

a. Inspection Scope

The inspectors evaluated the licensee's fire protection program for operational status and material condition. The inspectors focused their inspection on four plant areas important to safety:

- October 14, 2015, Reactor building 903 feet elevation, Fire Area 2D, Zone I
- November 2, 2015, Control building 903 feet, 6 inch elevation, Fire Area VII, Zone 8A
- November 2, 2015, Control building 903 feet, 6 inch elevation, Fire Area IV(A), Zone 8E
- December 15, 2015, Diesel generator 1 and 2, Door N104, Fire Area IX, Zone 14A

For each area, the inspectors evaluated the fire plan against defined hazards and defense-in-depth features in the licensee's fire protection program. The inspectors evaluated control of transient combustibles and ignition sources, fire detection and suppression systems, manual firefighting equipment and capability, passive fire protection features, and compensatory measures for degraded conditions.

These activities constituted four quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Review of Licensed Operator Requalification

a. Inspection Scope

On October 13, 2015, the inspectors observed simulator training for an operating crew. The inspectors assessed the performance of the operators and the evaluators' critique of their performance. The inspectors also assessed the modeling and performance of the simulator.

These activities constituted completion of one quarterly licensed operator requalification program sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Review of Licensed Operator Performance

a. Inspection Scope

On November 7, 2015, the inspectors observed the performance of on-shift licensed operators in the plant's main control room. At the time of the observations, the plant was in a period of heightened activity due to quarterly downpower. The inspectors observed turbine stop reactor protection system ½ scram functional testing, main steam isolation valve limit switch testing, and rod scram time testing.

In addition, the inspectors assessed the operators' adherence to plant procedures, including conduct of operations procedure and other operations department policies.

These activities constituted completion of one quarterly licensed operator performance sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.3 Biennial Review of Requalification Program

a. Inspection Scope

The licensed operator requalification program involves two training cycles that are conducted over a two year period. In the first cycle, the annual cycle, the operators are administered an operating test consisting of job performance measures and simulator scenarios. In the second part of the training cycle, the biennial cycle, operators are administered an operating test and a comprehensive written examination.

To assess the performance effectiveness of the licensed operator requalification program, the inspectors reviewed both the written examination and operating test quality and observed licensee administration of an annual requalification test while on-site. The operating tests observed included four job performance measures and two scenarios that were used in the current biennial requalification cycle. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content and to determine if feedback of performance analyses into the requalification training program was being accomplished.

On December 15, 2015, the licensee informed the inspectors of the completed cycle results for Cooper Nuclear Station for both the written examinations and the operating tests:

- 6 of 6 crews passed the simulator scenario portion of the operating test
- 36 of 36 licensed operators passed the simulator scenario portion of the operating test
- 36 of 36 licensed operators passed the job performance measure portion of the operating test
- 36 of 37 licensed operators passed the written examination

One senior reactor operator's license was reactivated during the annual operating test; subsequently, they participated in the biennial written examination. For this reason, 36 licensed individuals participated in the operating test and 37 individuals participated in the written examination.

The individual that failed the written examination was removed from licensed duties and the licensee initiated corrective action to remediate and retest the individual during the first quarter of 2016.

The inspectors observed examination security measures in place during administration of the exams (including controls and content overlap). The inspectors also reviewed medical records of nine licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for three operators.

The inspectors reviewed simulator performance for fidelity with the actual plant and the overall simulator program of maintenance, testing, and discrepancy correction.

These activities constituted completion of one biennial licensed operator requalification program sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed two instances of degraded performance or condition of safety-related structures, systems, and components (SSCs):

- November 18, 2015, Service water system maintenance effectiveness and 50.65(a)(1) function monitoring
- December 15, 2015, 50.65(a)(3) evaluation

The inspectors reviewed the extent of condition of possible common cause SSC failures and evaluated the adequacy of the licensee's corrective actions. The inspectors reviewed the licensee's work practices to evaluate whether these may have played a role in the degradation of the SSCs. The inspectors assessed the licensee's characterization of the degradation in accordance with 10 CFR 50.65 (the Maintenance Rule), and verified that the licensee was appropriately tracking degraded performance and conditions in accordance with the Maintenance Rule.

These activities constituted completion of two maintenance effectiveness samples, as defined in Inspection Procedure 71111.12.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed two risk assessments performed by the licensee prior to changes in plant configuration and the risk management actions taken by the licensee in response to elevated risk:

- October 8, 2015, Residual heat removal train A availability with the floor drain network isolation valve open for maintenance
- December 23, 2015, Ground on B steam tunnel fan coil unit

The inspectors verified that this risk assessments were performed timely and in accordance with the requirements of 10 CFR 50.65 (the Maintenance Rule) and plant procedures. The inspectors reviewed the accuracy and completeness of the licensee's risk assessments and verified that the licensee implemented appropriate risk management actions based on the result of the assessments.

These activities constituted completion of two maintenance risk assessments and emergent work control inspection samples, as defined in Inspection Procedure 71111.13.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed four operability determinations that the licensee performed for degraded or nonconforming structures, systems, or components (SSCs):

- October 15, 2015, Operability determination of reactor equipment cooling system with gland water leakage on standby service water pump A, CR-CNS-2015-05955
- December 16, 2015, Operability determination of emergency diesel generator 1 room exhaust fan discharge duct relief damper with a broken blade, CR-CNS-2015-07044
- December 16, 2015, Operability determination for foreign material found in auxiliary relay panel 9-45, CR-CNS-2015-07112
- December 18, 2015, Operability determination of emergency diesel generator operation during design basis cold weather operations, CR-CNS-2015-06718

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSC to be operable, the inspectors verified that the licensee's compensatory measures were appropriate to provide reasonable assurance of operability. The inspectors verified that the licensee

had considered the effect of other degraded conditions on the operability of the degraded SSC.

These activities constituted completion of four operability and functionality review samples, as defined in Inspection Procedure 71111.15.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

On October 6, 2015, the inspectors reviewed a permanent modification to the reactor core isolation cooling injection valve RCIC-MOV-21 increased stroke time acceptance criteria that affected risk-significant structures, systems, and components (SSCs).

The inspectors reviewed the design and implementation of the modification. The inspectors verified that work activities involved in implementing the modification did not adversely impact operator actions that may be required in response to an emergency or other unplanned event. The inspectors verified that post-modification testing was adequate to establish the operability of the SSCs as modified.

These activities constituted completion of one sample of permanent modifications, as defined in Inspection Procedure 71111.18.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed five post-maintenance testing activities that affected risk-significant structures, systems, or components (SSCs):

- October 15, 2015, Service water booster pump B maintenance and breaker replacement
- November 9, 2015, Service water pump C repacking and instrument rack re-tubing and conduit seal replacement post maintenance testing
- November 10, 2015, Hydraulic control unit 46-16 O-ring replacement for N2 accumulator
- November 16, 2015, Remove and install conduit seals D7 and D24, which supply power to 1C service water pump
- November 18, 2015, Service water pump B spot maintenance for expansion boot leak

The inspectors reviewed licensing- and design-basis documents for the SSCs and the maintenance and post-maintenance test procedures. The inspectors observed the performance of the post-maintenance tests to verify that the licensee performed the tests in accordance with approved procedures, satisfied the established acceptance criteria, and restored the operability of the affected SSCs.

These activities constituted completion of five post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed one risk-significant surveillance test and reviewed test results to verify that the test adequately demonstrated that the structures, systems, and components (SSCs) were capable of performing their safety functions:

Reactor coolant system leak detection test:

- November 24, 2015, Unidentified reactor coolant system leak detection with primary containment sump F isolated

The inspectors verified that the test met technical specification requirements, that the licensee performed the tests in accordance with their procedures, and that the results of the test satisfied appropriate acceptance criteria. The inspectors verified that the licensee restored the operability of the affected SSCs following testing.

These activities constituted completion of one surveillance testing inspection sample, as defined in Inspection Procedure 71111.22.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System Testing (71114.02)

a. Inspection Scope

The inspectors verified the adequacy of the licensee's methods for testing the primary and backup alert and notification system (ANS). The inspector reviewed siren maintenance records for 2014. The inspector reviewed the licensee's program for identifying emergency planning zone locations requiring tone alert radios, for distributing the radios, and reviewed radio distribution records for 2014. The inspector interviewed licensee personnel responsible for the maintenance of the primary and backup ANS and reviewed a sample of corrective action system reports written for ANS problems. The inspector compared the licensee's alert and notification system testing program with

criteria in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1; FEMA Report REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants," and the licensee's current FEMA-approved alert and notification system design report, "Cooper Nuclear Station Alert and Notification System Design Report," Revision 13, dated June 1, 2015.

These activities constituted completion of one alert and notification system evaluation sample, as defined in Inspection Procedure 71114.02.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

a. Inspection Scope

The inspector verified the licensee's emergency response organization on-shift and augmentation staffing levels were in accordance with the licensee's emergency plan commitments. The inspector reviewed documentation and discussed with licensee staff the operability of primary and backup systems for augmenting the on-shift emergency response staff to verify the adequacy of the licensee's methods for staffing emergency response facilities, including the licensee's ability to staff pre-planned alternate facilities. The inspector also reviewed records of emergency response organization augmentation tests and events to determine whether the licensee had maintained a capability to staff emergency response facilities within emergency plan timeliness commitments.

These activities constituted completion of one emergency response organization staffing and augmentation testing sample, as defined in Inspection Procedure 71114.03.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector performed in-office reviews of the Cooper Nuclear Station Emergency Plan, Revision 66, implemented on June 29, 2015, and Revision 67, implemented September 30, 2015. These revisions:

- Described the replacement of the site seismic monitoring system
- Implemented an indoor satellite telephone capability
- Implemented the eight-year exercise cycle and the associated requirements of Appendix E to 10 CFR 50, Part IV.F(2)(j)
- Updated the Letter of Agreement with the University of Nebraska Medical Center

- Updated estimates of the population in the emergency planning zone
- Updated titles and made other minor corrections to the text

These revisions were compared to their previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, and to the standards in 10 CFR 50.47(b) to determine if the revision adequately implemented the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4). The inspector verified that the revisions did not reduce the effectiveness of the emergency plan. This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, these revisions are subject to future inspection.

These activities constituted completion of two emergency action level and emergency plan change samples, as defined in Inspection Procedure 71114.04.

b. Findings

No findings were identified.

1EP5 Maintenance of Emergency Preparedness (71114.05)

a. Inspection Scope

The inspector reviewed the following documents for the period July 2013 through October 2015:

- After-action reports for emergency classifications and events
- After-action evaluation reports for licensee drills and exercises
- Independent audits of the licensee's emergency preparedness program
- Self-assessments of the emergency preparedness program conducted by the licensee
- Licensee evaluations of changes made to the emergency plan and emergency plan implementing procedures
- Drill and exercise performance issues entered into the licensee's corrective action program
- Emergency preparedness program issues entered into the licensee's corrective action program
- Emergency response organization and emergency planner training records

The inspector reviewed summaries of 360 corrective action program reports associated with emergency preparedness and selected thirty-two to review against program requirements, to determine the licensee's ability to identify, evaluate, and correct problems in accordance with planning standard 10 CFR 50.47(b)(14) and

10 CFR Part 50, Appendix E, IV.F. The inspector verified that the licensee accurately and appropriately identified and corrected emergency preparedness weaknesses during critiques and assessments.

The inspector reviewed summaries of 251 licensee evaluations of the impact of changes to the emergency plan and implementing procedures, and selected sixteen to review against program requirements to determine the licensee's ability to identify reductions in the effectiveness of the emergency plan in accordance with the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4). The inspector verified that evaluations of proposed changes to the licensee emergency plan appropriately identified the impact of the changes prior to being implemented.

These activities constituted completion of one sample of the maintenance of the licensee's emergency preparedness program, as defined in Inspection Procedure 71114.05.

b. Findings

Introduction. The inspectors identified a Green, non-cited violation of 10 CFR 50.54(t)(2), for the licensee's failure to include an evaluation of the adequacy of the interfaces with state and local governments in a review of emergency preparedness program elements in Audit 2014-06, dated November 7, 2014. Specifically, the licensee failed to include an evaluation of this interface when audit personnel did not provide offsite officials with an opportunity to provide their view of the adequacy of the interface to the audit team.

Description. The inspector reviewed Quality Assurance Audit 2014-06, dated November 7, 2014, and determined that Section II described the audit team's evaluation of the interface between the Cooper Nuclear Station emergency preparedness staff and offsite response organizations. The inspector noted that the evaluation consisted of a document review of letters of agreement with offsite organizations, a review of the recorded minutes of several meetings between licensee staff and offsite response organization representatives, and direct observation of one regularly scheduled meeting between licensee staff and offsite response organizations. The inspector discussed Audit 2014-06 with the lead auditor, who confirmed that the audit team did not provide offsite response organizations the opportunity to provide comments or concerns about the quality of the interface between licensee staff and offsite responders as part of the audit. The inspector observed that the lead auditor was knowledgeable about the primary offsite response organizations in Missouri and in Nebraska, as well as about local response organizations. The lead auditor stated that there was no licensee requirement to provide offsite authorities opportunities to provide information about the quality of their interface with the site during audits; but not to provide offsite officials the opportunity for comments was a deviation from the way audits were typically conducted. The lead auditor noted that audits conducted in 2013 and in 2015 did provide offsite agencies the opportunity to provide comments and information. The inspector concluded that Cooper Nuclear Station did not conduct an adequate evaluation of the interface between the station emergency preparedness organization and offsite officials because the evaluation did not provide offsite officials the opportunity to provide information to the audit team.

Analysis. The failure to perform an evaluation for adequacy of the interface with state and local governments in accordance with 10 CFR 50.54(t)(2) was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the offsite emergency preparedness attribute of the Emergency Preparedness Cornerstone, and affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the ability to implement adequate measures to protect the health and safety of the public could be affected if communication and coordination problems between the licensee and offsite agencies are not detected and corrected. The inspectors evaluated the finding using Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015. The finding was determined have very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded planning standard function. The finding had a cross-cutting aspect in the area of problem identification and resolution associated with evaluation because the licensee failed to thoroughly evaluate issues to ensure that resolutions addressed the causes and extent of conditions commensurate with their safety significance. Specifically, the audit team failed to fully evaluate the potential for problems to exist with the adequacy of the interface with state and local governments [P.2].

Enforcement. Title 10 CFR 50.54(t)(2) requires, in part, that the, "review of [emergency preparedness] program elements must include an evaluation for adequacy of the interfaces with state and local governments...The results of the review, along with recommendations for improvements, must be documented, [and] reported to the licensee's corporate and plant management." Contrary to the above, on November 7, 2014, the licensee's review of [emergency preparedness] program elements failed to include an evaluation for adequacy of the interfaces with state and local governments. Specifically, the review conducted under Audit 2014-06 did not provide offsite response organizations the opportunity to provide information about the adequacy of their interface with the licensee. This violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy, because it was very low safety significance (Green) and was entered into the licensee's corrective action program as Condition Report CR-CNS-2015-06403. Corrective actions included development of lessons learned for future audits and reengagement with state and local governments to assure adequate interface existed during the most recent emergency preparedness audits. (NCV 05000298/2015004-03, "Failure to Perform a Complete Evaluation of the Licensee Interface With Offsite Organizations")

4. OTHER ACTIVITIES

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

40A1 Performance Indicator Verification (71151)

.1 Mitigating System Performance Index: Emergency AC Power Systems (MS06), High Pressure Injection Systems (MS07), Heat Removal Systems (MS08), Residual Heat Removal Systems (MS09), and Cooling Water Systems (MS10)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of October 1, 2014, through September 30, 2015, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for emergency ac power systems, high pressure injection systems, heat removal systems, residual heat removal systems, and cooling water systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspector reviewed the licensee's evaluated exercises, emergency plan implementations, and selected drill and training evolutions that occurred between July 1, 2014 and September 30, 2015 to verify the accuracy of the licensee's data for classification, notification, and protective action recommendation (PAR) opportunities. The inspector reviewed a sample of the licensee's completed classifications, notifications, and PARs to verify their timeliness and accuracy. The inspector used Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the drill/exercise performance indicator, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspector reviewed the licensee's records for participation in drill and training evolutions between July 1, 2014 and September 30, 2015 to verify the accuracy of the licensee's data for drill participation opportunities. The inspector verified that all members of the licensee's emergency response organization (ERO) in the identified key positions had been counted in the reported performance indicator data. The inspector reviewed the licensee's basis for reporting the percentage of ERO members who participated in a drill. The inspector reviewed drill attendance records and verified a sample of those reported as participating. The inspector used Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the emergency response organization drill participation performance indicator, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.4 Alert and Notification System Reliability (EP03)

a. Inspection Scope

The inspector reviewed the licensee's records of alert and notification system tests conducted between July 1, 2014 and September 30, 2015 to verify the accuracy of the licensee's data for siren system testing opportunities. The inspector reviewed procedural guidance on assessing alert and notification system opportunities and the results of periodic alert and notification system operability tests. The inspector used Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the alert and notification system reliability performance indicator, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

40A2 Problem Identification and Resolution (71152)

.1 Routine Review

a. Inspection Scope

Throughout the inspection period, the inspectors performed daily reviews of items entered into the licensee's corrective action program and periodically attended the licensee's condition report screening meetings. The inspectors verified that licensee

personnel were identifying problems at an appropriate threshold and entering these problems into the corrective action program for resolution. The inspectors verified that the licensee developed and implemented corrective actions commensurate with the significance of the problems identified. The inspectors also reviewed the licensee's problem identification and resolution activities during the performance of the other inspection activities documented in this report.

b. Findings

No findings were identified.

.2 Semiannual Trend Review

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program, performance indicators, system health reports, and other documentation to identify trends that might indicate the existence of a more significant safety issue. The inspectors verified that the licensee was taking corrective actions to address identified adverse trends. The inspectors did not review any cross-cutting themes because no cross-cutting theme exists at the site.

To verify that the licensee was taking corrective actions to address identified adverse trends that might indicate the existence of a more significant safety issue, the inspectors reviewed corrective action program documentation associated with the following licensee-identified trends:

- Adverse trend in human performance associated with overconfidence and complacency (CR-CNS-2015-05020);
- Adverse trend in Corrective Action Review Board (CARB) rejections (CR-CNS-2015-05997); and
- Potential trend in human performance associated with work practices and procedural usage and adherence (CR-CNS-2015-05654).

These activities constituted completion of one semiannual trend review sample, as defined in Inspection Procedure 71152.

b. Observations and Assessments

The inspectors' review of the trends identified above produced the following observations and assessments:

- For the adverse trend in human performance associated with overconfidence and complacency, the licensee has conducted department stand-downs to discuss challenges with human performance. These discussions included topics such as; examples, causes, and corrective actions. The licensee initiated plans to conduct additional communications with supervisory staff in January 2016, followed by a formal effectiveness review in March.

For this trend, the inspectors determined that the licensee had completed an appropriate evaluation and had taken appropriate action to not only correct the identified condition, but also to address the extent of cause of the condition.

- For the adverse trend in CARB rejections, the licensee performed an evaluation using a barrier analysis method. The evaluation identified that responsible managers had not effectively engaged organizational support and teamwork to drive timely and quality completion of cause analysis products; and the licensee had not established and implemented a sufficient means to prepare managers to perform corrective action program responsible manager job functions required for ownership of cause analysis products. The licensee concluded that there were no procedurally required qualification standards for responsible managers. Specifically, no required training or minimum experience level were specified, no demonstration of proficiency was mandated, and no periodic refresher training was required. Additionally, the evaluation identified challenges with resources, teamwork, and the use of independent reviews. Planned corrective actions included; additional interaction between department managers and Directors to ensure appropriate resources, teamwork, and use of independent reviews. Additionally, the licensee created an action to institute a formal guide to assist managers with the implementation of causal evaluations. Additional actions included monitoring of responsible managers by CARB during the routine performance of CARB duties. The inspectors noted that no formal effectiveness review was planned.

For this trend, the inspectors determined that the licensee had completed an appropriate evaluation and had taken appropriate action to not only correct the identified condition, but also to address the extent of cause of the condition.

- For the potential performance trend associated with work practices and procedural usage and adherence, the licensee performed an evaluation and determined that, corrective actions beyond those planned for the previously discussed adverse trend in human performance were not required.

For this trend, the inspectors determined that the licensee had completed an appropriate evaluation and had taken appropriate action to not only correct the identified condition, but also to address the extent of cause of the condition.

The inspectors did not identify any trends not also identified by the licensee.

c. Findings

No findings were identified.

.3 Annual Follow-up of Selected Issues

a. Inspection Scope

The inspectors selected one issue for an in-depth follow-up:

- On December 7, 2015, CR-CNS-2015-05820 and CR-CNS-2015-05765; generated in response to a slowly increasing second stage seal pressure associated with reactor recirculation pump B

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors also reviewed and assessed the associated operational decision making issue (ODMI) that the licensee developed to address the condition. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to monitor and correct the condition.

These activities constituted completion of one annual follow-up samples, as defined in Inspection Procedure 71152.

b. Findings

No findings were identified.

40A3 Follow-up of Events and Notices of Enforcement Discretion (71153)

These activities constituted completion of two event follow-up samples, as defined in Inspection Procedure 71153.

.1 (Closed) Licensee Event Report (LER) 05000298/2015001-01, "Valve Test Failures Result in a Condition Prohibited by Technical Specifications and a Loss of Safety Function"

a. Inspection Scope

During the third quarter of 2015, the inspectors reviewed Revision 0 of LER 05000298/2015001-00, "Valve Test Failures Resulted in a Condition Prohibited by Technical Specifications and a Loss of Safety Function." The inspectors closed this LER in Cooper Nuclear Station - NRC Integrated Inspection Report 05000298/2015003 (ML15316A156) with no findings identified.

During the current inspection period, the inspectors reviewed a revision to this LER, LER 05000298/2015001-01 and identified that potential cause discussed in LER 05000298/2015001-00 was changed to the direct cause. Specifically, the cause of the failures of five of eight two-stage Target Rock safety relief valve pilot (SRV) valve to lift within technical specification set point requirements was corrosion bonding.

The inspectors reviewed the licensee's causal evaluation and their evaluation of the failure mechanism in order to assess the condition and associated corrective actions. The inspectors also reviewed an analysis of the SRV safety function that was performed by the vendor.

Although the technical specification set point lift pressures of the SRV pilot assemblies were exceeded, the vendor analysis of the event demonstrated that the design basis safety function of the SRVs to ensure overpressure protection of the reactor vessel and its pressure-sensitive equipment was maintained.

b. Findings

The Licensee Event Report was reviewed. No findings or violations of NRC requirements were identified.

.2 (Closed) Licensee Event Report (LER) 05000298/2015003-00 and 01, "Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability"

a. Inspection Scope

The inspectors reviewed LER 05000298/2015003, Revisions 0 and 1, for a condition associated with the failure of several main steam isolation limit switches. On January 31, 2015 and May 16, 2015, the station performed quarterly surveillance testing for the main steam isolation valves (MSIV) channel functional test of the MSIV not-full-open logic. This logic was associated with the reactor protection system (RPS). In each case, the licensee experienced failures associated with the testing.

On January 31, 2015, the inboard MSIV MS-AOV-80C limit switch A failed its surveillance testing and was declared inoperable. The station placed the associated RPS channel in trip to satisfy Technical Specification 3.3.1.1, "Reactor Protection System Instrumentation." Additionally, inboard MSIV MS-AOV-80A limit switch A failed three of the four surveillance tests; however, it was declared operable.

On May 16, 2015, the inboard MSIV-AOV-80A limit switch A failed two surveillance tests and was declared inoperable. The station placed the associated RPS channel in trip to satisfy Technical Specification 3.3.1.1. Additionally, inboard MSIV MS-AOV-80B limit switch A failed one of two surveillance tests, but was declared operable. The licensee's determination of reasonable expectation of operability for this switch was based on satisfactory completion of the last surveillance test and their assessment that no unacceptable pre-conditioning concerns existed for the RPS system and MS-AOV-80B limit switch A. On May 19, 2015, the station determined the failure mechanism was not fully understood and declared MS-AOV-80B limit switch A inoperable and entered Technical Specification 3.3.1.1. This resulted in a continuous half scram.

During a review of potential failure mechanisms, the licensee determined that every inboard MSIV limit switch was replaced during the October 2014 refueling outage. As a result of the failures that were identified, and the resulting configuration of the plant, the licensee entered into a planned outage conducted from May 30, 2015 to June 1, 2015. During this planned outage, the licensee took corrective action to replace all of the MSIV limit switches in order to address the existing failures and associated extent of condition concerns.

The limit switches removed during the 2015 planned outage were inspected by the vendor. The vendor determined the switch performance problem was inadequate stress relieved return springs resulting in a decreased return spring force. The vendor reported this condition to the NRC as a 10 CFR Part 21 notification on July 31, 2015.

The inspectors reviewed the licensee's apparent cause evaluation and the vendor's evaluation of the limit switch failure mechanism in order to assess the condition and associated corrective actions. The inspectors determined that there was not a loss of

safety function since the outboard MSIV limit switches were not affected by this condition.

b. Findings

One NRC-identified NCV was previously identified and documented in NRC Problem Identification and Resolution Inspection Report 05000298/2015008 as NCV 05000298/2015008-03, "Main Steam Isolation Valve Scram Closure Condition Prohibited by Technical Specifications."

40A5 OTHER ACTIVITIES

Operation of an Independent Spent Fuel Storage Facility Installation (ISFSI) at Operating Plants (60855.1)

Operation of an ISFSI

a. Inspection Scope

A routine ISFSI inspection was conducted at the Cooper Nuclear Station (CNS) ISFSI on November 17-19, 2015, by a Region IV Division of Nuclear Material Safety inspector. The inspector performed a paperwork review of documents related to dry fuel storage operations at the site, including quality assurance audits and surveillances, ISFSI and fuel building crane related condition reports (CRs), ISFSI survey records and monitoring data, technical specification (TS) surveillance records, and fuel records for assemblies placed into dry fuel storage during the most recent loading campaign in 2014. Fuel records were reviewed to verify that the licensee had loaded fuel in accordance with the Transnuclear (TN) Certificate of Compliance (CoC) 1004 TS approved contents. The inspector reviewed records which documented dry shielded canister (DSC) serial numbers, canister heat load maps, and fuel assembly qualification information, including the as-loaded assembly decay heat (kW), cooling time (years), average U-235 enrichment (percent), cumulative burnup (MWd/MTU), and other information.

The NRC inspector verified the radiological conditions of the CNS ISFSI through a review of the most recent radiological survey and a walk-down of the ISFSI pad with radiation survey instrumentation. The NRC inspector was accompanied by a radiation protection (RP) manager and a RP technician during the walk-down of the ISFSI pad. The inspector observed that the ISFSI pad was clear of vegetative overgrowth and there were no unexpected materials, combustibles, or flammable items present on the storage pad. The ISFSI pad contained 18 loaded Horizontal Storage Modules (HSMs) and 12 empty HSMs. Of those, eight were HSM-202 models and the other 22 were of the HSM-H design. All of the HSMs were in good physical condition. ISFSI boundary radiological measurements were taken by the RP technician with a Geiger-Mueller detector to record gamma exposure rates. The NRC inspector carried a Ludlum Model 19 sodium-iodide survey meter (NRC #033906, calibration due March 13, 2016) and recorded confirmatory measurements at the ISFSI boundary. The measurements taken by the RP technician confirmed the measurements recorded on the most recent ISFSI site survey. The radiological conditions in and around the ISFSI were as expected, given the radiation area postings around the loaded HSMs. Additional concrete barriers (Jersey barriers) were placed several feet outside of the loaded HSM lower vent locations to further reduce dose.

ISFSI thermoluminescent dosimeter (TLD) monitoring data were reviewed for the current and previous two years. Those TLD monitoring results documented an increase in dose in close proximity to the ISFSI pad as more spent fuel was stored onsite. However, annual radiological environmental monitoring program (REMP) data documented the dose equivalent to any real individual located beyond the site controlled area was well below the 10 CFR 72.104(a)(2) requirement of less than 25 mrem per year.

The NRC inspector reviewed three randomly selected weeks of TN HSM temperature surveillance records and confirmed that the TN CoC 1004 Technical Specification 1.3 requirements were being met for fuel stored on the ISFSI pad.

A list of fuel building crane and ISFSI related CRs issued since the last NRC inspection (August 2013) was provided by the licensee to the NRC inspector. When a problem was identified, the licensee would document the issue in a CR for placement in the licensee's corrective action program. Of the list of CRs provided relating to the ISFSI and the cask handling crane, 38 were selected by the NRC inspector for further review. The CRs were well documented and properly categorized based on the safety significance of the condition. The corrective actions taken were appropriate to the situations. Based on the comprehensiveness of the corrective actions, the licensee demonstrated good attention to detail in regard to the maintenance and operation of its ISFSI program and the cask handling crane. No NRC safety concerns were identified related to the CRs selected during this inspection.

The licensee's 10 CFR 72.48 screenings and evaluations (known internally to Entergy sites as process applicability determinations or PADs) for changes to the ISFSI program since the last NRC inspection were reviewed to determine compliance with regulatory requirements. CNS had performed eight 72.48 screens and no full 72.48 evaluations since the last inspection. The licensee had performed one 10 CFR 50.59 screen and no evaluations for the fuel building cask handling crane since the last inspection. All of the 72.48 and 50.59 screens that were reviewed were determined to have been adequately evaluated by the licensee.

An on-site review of the quality assurance (QA) audits and surveillance reports related to dry cask storage activities at the CNS ISFSI was performed by the NRC inspector. The QA audit report relied heavily on the findings of a QA surveillance (QAD 2014-0016) performed during the second dry fuel storage campaign, which resulted in one condition report. The NRC inspector reviewed the corrective actions resulting from the condition report to ensure that the identified deficiencies were properly categorized based on the safety significance and properly resolved. The deficiency identified by the QA surveillance had been properly categorized and resolved by the licensee.

The inspector concluded that the licensee had met NRC requirements for the documents and activities reviewed associated with the dry cask storage activities at Cooper Nuclear Station.

b. Findings

No findings were identified.

40A6 Meetings, Including Exit

Exit Meeting Summary

On November 6, 2015, the inspector presented the results of the onsite inspection of the emergency preparedness program to Mr. O. Limpias, Vice President and Chief Nuclear Officer, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On November 19, 2015, the inspector presented the results of the Cooper Nuclear Station ISFSI inspection results to Mr. D. Buman, Director of Engineering, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On December 30, 2015, the inspectors briefed Mr. O. Limpias, Vice President and Chief Nuclear Officer, and other members of the licensee staff of the results of the licensed operator requalification program inspection. The licensee representatives acknowledged the issues presented. The inspectors confirmed that no materials examined during the inspection would be considered proprietary.

On January 7, 2016, the inspectors presented the inspection results to Mr. O. Limpias, Vice President and Chief Nuclear Officer, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

M. Bacon, Manager, Training
S. Bantz, RP ALARA
T. Barker, Manager, Engineering Program and Components
J. Bebb, Manager, Security
J. Bednar, Supervisor, Radiation Protection – Technical
K. Billesback, Manager, Material, Purchasing and Contracts
G. Brewer, Superintendent, Operations Requalification
D. Buman, Director, Engineering
T. Chard, Manager, Quality Assurance
L. Dewhirst, Manager, Corrective Action and Assessment
K. Dia, Manager, System Engineering
M. Ferguson, Supervisor, Stores
J. Flaherty, Senior Licensing Engineer
J. Florence, Supervisor, Simulator
D. Goodman, Manager, Operations
K. Higginbotham, General Manager Plant Operations
M. Hub, Manager, Maintenance
E. Jackson, Examination Author
D. Kimball, Director, Nuclear Oversight
B. Kinnaman, Superintendent, Maintenance Training
B. Kirkpatrick, NRC Licensing Contact, NPPD
K. Kreitels, Audit Leader, Quality Assurance
O. Limpas, Vice President, Chief Nuclear Officer
M. Maness, Superintendent, Operations Initial Training
J. Olberding, Licensing Specialist
C. Pelchat, Manager, Projects
R. Penfield, Director, Nuclear Safety Assurance
J. Reimers, Supervisor, Balance of Plant
J. Shaw, Manager, Licensing
J. Stough, Manager, Emergency Preparedness
C. Sunderman, Manager, Radiation Protection
E. Swift, Radiation Protection Technician, NPPD
D. VanDerCamp, Senior Licensing Engineer
D. Vice, Manager, Information Technology
B. Voss, Refuel Floor Manager, Entergy
C. Walgren, Site Manager, Procurement
A. Walters, Manager, Chemistry and Environmental

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000298/2015004-01	NCV	Diesel Fuel Oil Cloud Point Acceptance Criteria not in accordance with ASTM D975, Revision 1989a (Section 1R01)
05000298/2015004-02	NCV	Failure to Update the Updated Safety Analysis Report (Section 1R04)
05000298/2015004-03	NCV	Failure to Perform a Complete Evaluation of the Licensee Interface With Offsite Organizations (Section 1EP5)

Closed

05000298/2015001-01	LER	Valve Test Failures Result in a Condition Prohibited by Technical Specifications and a Loss of Safety Function (Section 4OA3)
05000298/2015003-00	LER	Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability (Section 4OA3)
05000298/2015003-01	LER	Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability (Section 4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
88-233	NEDC, Emergency Diesel Generator Fuel Requirements	2
2825-1	Isometric Drawing, Diesel Generator Fuel Oil Piping	N01
69320	IDOCS	
80066-11	Drawing, Storage Tank Drawing	4
800000040123	Planned Maintenance, Supplemental Diesel Generator Diesel Fuel Oil Sample	

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2.1.14	Seasonal Weather Preparations	28
2.2.30	Fire Protection System	64
2.3_FP-5	Fire Protection – Annunciator 5	14
5.1Weather	Operations during Weather Watches and Warning	13

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
5.3EMPWR	Emergency Power During Modes 1, 2, or 3	54
6.DG.604	Diesel Fuel Oil Storage Tank, Bunker A and B, Quality Test	22
6.DG.605	Diesel Fuel Oil Incoming Truck Sampling	21
6.FP.612	Diesel Fire Pump Fuel Quality Test	10

Condition Reports (CRs)

CR-CNS-2015-06717 CR-CNS-2015-06718 CR-CNS-2015-06720

Section 1R04: Equipment Alignment

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2045	Flow Diagram Standby Liquid Control System	21
2825-1	Isometric Drawing, Diesel Generator Fuel Oil Piping	N01
80066-11	Storage Tank Drawing	4

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
3A	EOP, Primary Containment Control	15
08-009	Engineering Evaluation, Diesel Generator Day Tank and Storage Tank Calculation Revisions for Vortex Issues	0
12-019	NEDC, Service Water Post-LOCA Flow Test Revised Acceptance Criteria	0
90-68	NEDC, Diesel Generator Rooms 1 and 2 Internal Heat Loads	2, 2C1, 2C2
91-103	NEDC, Cooling of the Diesel Generator Rooms without HVAC Coils	2
92-093	NEDC, Core Spray Temperature Rise	10
94-21	NEDC, REC-HX-A and REC-HX-B Maximum Allowable Accident Case Fouling	6C1
97-012	NEDC, Emergency Diesel Generator Fuel On-site Storage Technical Specification Requirements	3
97-087	NEDC, Acceptance Criteria for HPCI Room Cooler and Reactor Building Quad Coolers	4

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
98-002	NEDC, REC Surge Tank Level DBA Volume	8
2031	Burns and Roe, Sheet 2, Flow Diagram Reactor Building – Closed Cooling Water System Cooper Nuclear Station	N65
2036	Burns and Roe, Sheet 1, Flow Diagram Reactor Building Service Water System	A3
2077	Burns and Roe, Flow Diagram – Diesel Generator Building Service Water, Starting Air, Fuel Oil, Sump System and Roof Drains Cooper Nuclear Station	N78
2013-001	LIC, HPCI Mission Time	0
93057	DC, Service Water and Reactor Equipment Cooling System Modifications	0
AMP-TBD00	EOP/SAG Technical Basis Document Plant Specific Technical Guideline-Severe Accident Technical Guidelines	8
AMP-TBD01	EOP/SAG Technical Basis Document Plant Specific Design Document	7

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2.0.11	Entering and Exiting Technical Specification TRM/ODAM LCO Conditions	41
2.0.11.1	Safety Function Determination Program	8
2.2.12	Diesel Fuel Oil Transfer System	61
2.2.74	Standby Liquid Control	53
2.2A.DGDO.Div 1	Diesel Fuel Oil Transfer System Component Checklist (Div 1)	4
2.2A.SW.Div 1	Service Water System Component Checklist (Div 1)	18
2.2A.SW.Div 2	Service Water System Component Checklist (Div 2)	24
2.3_DG1	Panel DG1 – Annunciator DG-1	21
5.8.8	Alternate Boron Injection and Preparation	16
5.2REC	Loss of REC	16
5.2Fuel	Fuel Failure	19
5.3EMPWR	Emergency Power During Modes 1,2, or 3	53
6.REC.601	REC Flow Balancing and Flow Verification	7
6.SW.102	Service Water System Post-LOCA Flow Verification	48

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.1DG.101	Diesel Generator 31 Day Operability Test (IST)(DIV 1)	82
6.1DG.301	Fuel Oil Day Tank Level Switches Functional Test and Solenoid Valve IST Closure Test (Div 1)	20
6.1DG.401	Diesel Generator Fuel Oil Transfer Pump IST Flow Test (Div 1)	32

Condition Reports (CRs)

CR-CNS-2015-05878 CR-CNS-2015-05948 CR-CNS-2015-05955 CR-CNS-2015-06717
CR-CNS-2015-06718 CR-CNS-2015-06720

Section 1R05: Fire Protection

Miscellaneous Documents

<u>Title</u>	<u>Revision</u>
Cooper Nuclear Station Fire Pre-plan	
Cooper Nuclear Station Hazards Analysis Matrix	
Burns and Roe, Sheet 1C, Flow Diagram Fire Protection Reactor Building Cooper Nuclear Station	N03

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.FP.301	Operations Power Block Sprinkler System Testing	20
7.3.21.10	Fire Door Preventive Maintenance Procedure	17

Condition Reports (CRs)

CR-CNS-2013-08026 CR-CNS-2015-00440 CR-CNS-2015-00810 CR-CNS-2015-04185

Work Orders

4981835 5002528 5013229

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Licensed Operator Requal 2014 thru 2015 Training Schedule	5
	Procedure 2.07 Attachment 4, SRO Reactivation, for three individuals	Various
	Training Attendance records, Crew B	2Q2015
	Shift Staffing Report, Crew B	April 1, 2015 – June 30, 2015
COR0090213	Licensed and STE Personnel Requal Cycle 02-13 for 2015	11
COR0090214	Licensed and STE Personnel Requal Cycle 02-14 for 2015	8
COR0090215	Licensed and STE Personnel Requal Cycle 02-15 for 2015	6
COR0090216	Licensed and STE Personnel Requal Cycle 02-16 for 2015	5
SKL05151275	Performance Mode Scenario #1	1

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-EN-TQ-210	Conduct of Simulator Training	8C1
0-EN-TQ-217	Examination Security	4C0
CoP2.0.1.3	Time Critical Operator Action Control and Maintenance	4
CoP2.0.7	Licensed Operator Active/Reactivation/Medical Status Maintenance Program	10
NTP1.13	Nuclear Training Program Procedures and Training Qualification Descriptions	25
NTP7.2	Simulator Configuration Management	9
NTP7.3	Simulator Physical Fidelity	8
NTP7.4	Simulator Performance Test Documentation	5
NTP7.5	Simulator Performance Review Committee	10
NTP8.1	Administration Of Licensed Operator Medical Examination Program	17
OTP805	Licensed Operator Requalification Biennial Written Exam Development and Administration	16

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OTP810	Operations Department Examination Security	17
OTP813	Annual Operating Requalification Examination Development and Administration	11
OTP814	Simulator Scenario-Based Testing	1
SDG1.1	Simulator Work Package	11
SDG2.1	Simulator Software Configuration Control and Verification Testing	9
SDG2.2	Simulator Reactor Core Model Reload	11
SDG3.1	Simulator Hardware Changes	6
SDG3.2	Simulator Hardware Documentation Change Control	5
SDG4.1	Simulator Performance and Validation Testing	10
TPP201	CNS Licensed Personnel Requalification Program	66
0.4	Procedure Change Process	64
6.MS.201	Main Steam Isolation Valve Operability Test (IST)	19
6.RPS.302	Main Turbine Stop Valve Closure and Steam Valve Functional Test	53
10.9	Control Rod Scram Time Evaluation	67

Condition Reports (CRs)

CR-CNS-2013-04896	CR-CNS-2013-04938	CR-CNS-2013-05041	CR-CNS-2013-05155
CR-CNS-2013-05543	CR-CNS-2013-05772	CR-CNS-2013-05860	CR-CNS-2013-05934
CR-CNS-2013-05935	CR-CNS-2013-05994	CR-CNS-2013-06130	CR-CNS-2013-06250
CR-CNS-2013-06740	CR-CNS-2013-06886	CR-CNS-2013-07043	CR-CNS-2013-07052
CR-CNS-2013-07161	CR-CNS-2013-07202	CR-CNS-2013-07491	CR-CNS-2013-07494
CR-CNS-2013-07507	CR-CNS-2013-07559	CR-CNS-2013-08116	CR-CNS-2013-08200
CR-CNS-2013-08201	CR-CNS-2013-08397	CR-CNS-2013-08451	CR-CNS-2013-08452
CR-CNS-2013-08474	CR-CNS-2013-08545	CR-CNS-2013-08593	CR-CNS-2013-08601
CR-CNS-2014-00034	CR-CNS-2014-00062	CR-CNS-2014-00092	CR-CNS-2014-00117
CR-CNS-2014-00118	CR-CNS-2014-00160	CR-CNS-2014-00285	CR-CNS-2014-00291
CR-CNS-2014-00387	CR-CNS-2014-00401	CR-CNS-2014-00440	CR-CNS-2014-00626
CR-CNS-2014-00809	CR-CNS-2014-00885	CR-CNS-2014-00921	CR-CNS-2014-00962

CR-CNS-2014-00991	CR-CNS-2014-01029	CR-CNS-2014-01158	CR-CNS-2014-01171
CR-CNS-2014-01219	CR-CNS-2014-01329	CR-CNS-2014-01375	CR-CNS-2014-01389
CR-CNS-2014-01451	CR-CNS-2014-01476	CR-CNS-2014-01603	CR-CNS-2014-01647
CR-CNS-2014-01695	CR-CNS-2014-01824	CR-CNS-2014-01866	CR-CNS-2014-02062
CR-CNS-2014-02513	CR-CNS-2014-02578	CR-CNS-2014-02661	CR-CNS-2014-02761
CR-CNS-2014-02786	CR-CNS-2014-02998	CR-CNS-2014-03036	CR-CNS-2014-03662
CR-CNS-2014-03701	CR-CNS-2014-03760	CR-CNS-2014-03785	CR-CNS-2014-03806
CR-CNS-2014-04096	CR-CNS-2014-04279	CR-CNS-2014-04460	CR-CNS-2014-04510
CR-CNS-2014-04562	CR-CNS-2014-04845	CR-CNS-2014-04931	CR-CNS-2014-04931
CR-CNS-2014-04965	CR-CNS-2014-04966	CR-CNS-2014-05012	CR-CNS-2014-05039
CR-CNS-2014-05061	CR-CNS-2014-05290	CR-CNS-2014-05479	CR-CNS-2014-05524
CR-CNS-2014-05558	CR-CNS-2014-05572	CR-CNS-2014-05658	CR-CNS-2014-05809
CR-CNS-2014-05947	CR-CNS-2014-05975	CR-CNS-2014-05977	CR-CNS-2014-05986
CR-CNS-2014-06339	CR-CNS-2014-06652	CR-CNS-2014-06705	CR-CNS-2014-06748
CR-CNS-2014-06793	CR-CNS-2014-07069	CR-CNS-2014-07538	CR-CNS-2014-07871
CR-CNS-2014-07949	CR-CNS-2014-08178	CR-CNS-2014-08266	CR-CNS-2014-08411
CR-CNS-2014-08484	CR-CNS-2014-08652	CR-CNS-2014-08655	CR-CNS-2014-08692
CR-CNS-2014-08728	CR-CNS-2014-08785	CR-CNS-2014-08923	CR-CNS-2015-00365
CR-CNS-2015-00396	CR-CNS-2015-00402	CR-CNS-2015-00444	CR-CNS-2015-00478
CR-CNS-2015-00487	CR-CNS-2015-00548	CR-CNS-2015-00571	CR-CNS-2015-00591
CR-CNS-2015-00606	CR-CNS-2015-00652	CR-CNS-2015-00819	CR-CNS-2015-00823
CR-CNS-2015-00870	CR-CNS-2015-01048	CR-CNS-2015-01180	CR-CNS-2015-01259
CR-CNS-2015-01263	CR-CNS-2015-01281	CR-CNS-2015-01301	CR-CNS-2015-01796
CR-CNS-2015-01826	CR-CNS-2015-01856	CR-CNS-2015-02071	CR-CNS-2015-02072
CR-CNS-2015-02329	CR-CNS-2015-02414	CR-CNS-2015-02422	CR-CNS-2015-02674
CR-CNS-2015-02835	CR-CNS-2015-02913	CR-CNS-2015-02914	CR-CNS-2015-02968
CR-CNS-2015-03053	CR-CNS-2015-03084	CR-CNS-2015-03213	CR-CNS-2015-03267
CR-CNS-2015-03486	CR-CNS-2015-03662	CR-CNS-2015-03907	CR-CNS-2015-03958
CR-CNS-2015-06427			

Work Orders

5022983

5054187

Section 1R12: Maintenance Effectiveness

Miscellaneous Documents

<u>Number</u>	<u>Title</u>
2013-0077-042	LO

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-Barrier	Barrier Control Process	21
0-Barrier-Misc	Miscellaneous Buildings	5
0-CNS-WM-102	Work Implementation and Closeout	4
0-CNS-WM-104	On-Line Schedule Risk Assessment	2
0-CNS-WM-109	On-Line Schedule Development and Implementation	1
0.5OPS	Operations Review of Condition Reports/Operability Determination	53
2.0.11	Entering and Exiting Technical Specification/TRM/ODAM LCO condition(s)	41
2.0.11.1	Safety Function Determination Program	8
3-EN-DC-207	Maintenance Rule Periodic Assessment	3C0
6.1SW.302	SW Pressure Instrument Calibration and Isolation Logic Function Test (Div 1)	8
6.1SW.303	SW Pressure Instrument Calibration and Pump Auto Start Functional Test (Div 1)	11

Condition Reports (CRs)

CR-CNS-2008-08695	CR-CNS-2010-07958	CR-CNS-2012-01685	CR-CNS-2012-02922
CR-CNS-2013-03205	CR-CNS-2013-07520	CR-CNS-2013-08029	CR-CNS-2014-04185
CR-CNS-2015-00777	CR-CNS-2015-00810	CR-CNS-2015-07118	CR-CNS-2015-07523

Work Orders

4741859	4741960	4848605	4881012	5003093
5063155	5078980			

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
09-102	NEDC, Internal Flooding – HELB, MELB, and Feedwater Line Break	1
11205237	ECR, Steam Tunnel Bulk Temp 155 Degrees F	December 23, 2015

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-CNS-WM-104	On-Line Schedule Risk Assessment	2
2.1.5	Reactor Scram	71
2.2.89	HVAC Steam Tunnel Cooling	26
2.3-R-2	Steam Tunnel High Temp	18
2.4MC-RF	Condensate and Feedwater Abnormal	14
2.4TEC	TEC Abnormal	25

Condition Reports (CRs)

CR-CNS-2015-07272 CR-CNS-2015-07275 CR-CNS-2015-07538

Work Orders

5003606

Section 1R15: Operability Determinations and Functionality Assessments

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
15-068	NEDC, Diesel Generator Room and Day Tank Room Temperatures on a Design Winter Day	0
90-68	Diesel Generator Rooms 1 and 2 Internal heat Loads	2, 2C1, 2C2
91-103	NEDC, Cooling of the Diesel Generator Rooms without HVAC Coils	2

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0.5OPS	Operations Review of Condition Reports/Operability Determination	53
2.0.11	Entering and Exiting Technical Specification/TRM/ODAM LCO Conditions	41
2.0.11.1	Safety Function Determination Program	8
6.PRS.302	Main Turbine Stop Valve Closure and Stem Valve Functional Test	52

Condition Reports (CRs)

CR-CNS-2015-04257 CR-CNS-2015-04310 CR-CNS-2015-04346 CR-CNS-2015-05955
CR-CNS-2015-06475 CR-CNS-2015-06703 CR-CNS-2015-06717 CR-CNS-2015-06718
CR-CNS-2015-06720 CR-CNS-2015-07044 CR-CNS-2015-07106 CR-CNS-2015-07112
CR-CNS-2015-07150

Section 1R18: Plant Modifications

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
00-93	NEDC, Review of MPR Report 1876, Part 6, EPRI PPM for RCIC-MOV-MO21	1
06-014	Engineering Evaluation, Design Basis Stroke Time Requirements for Various Power Operated Valves	1
90-039	NEDC, DC Powered Motor Operator Valve Stroke Time and Capability Calculation	7

Condition Reports (CRs)

CR-CNS-2015-05006

Section 1R19: Post-Maintenance Testing

Miscellaneous Documents

<u>Number</u>	<u>Title</u>
VM-1465	Vendor Manual for Rubber Expansion Boot

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-Barrier	Barrier Control Process	20
0-CNS-WM-105	Planning	15
0-EN-WM-107	Post Maintenance Testing	4C1
6.1SW.101	Service Water Surveillance Operation (Div 1)(IST)	45
7.0.5	CNS Post-Maintenance Testing	48, 49
7.3.17.3	Replacing 4160V Breakers	18
7.3.17.4	4160V Vacuum Bottle Breaker Maintenance	1
10.9	Control Rod Scram time Evaluation	67

Condition Reports (CRs)

CR-CNS-2015-06009	CR-CNS-2015-06017	CR-CNS-2015-06432	CR-CNS-2015-06433
CR-CNS-2015-06434	CR-CNS-2015-06435	CR-CNS-2015-06436	CR-CNS-2015-06618

Work Orders

4880368	4954679	4957363	5012980	5013134
5022421	5022870	5042478	5063155	5078980

Section 1R22: Surveillance Testing

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2.2.27	Equipment, Floor, and Chemical Drain System	53
6.LOG.601	Daily Surveillance Log – Modes 1,2, and 3	119

Condition Reports (CRs)

CR-CNS-2015-06704

Section 1EP2: Alert and Notification System Testing

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Letter from R.L. McCabe, Chief, Technological Hazards Branch, FEMA Region VII, to J. Kelsay, Emergency Preparedness Coordinator, Nebraska Public Power District	August 17, 2004

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Letter from C. Gregg, Chief, Technological Hazards Branch, FEMA Region VII, to J. Kelsay, Emergency Preparedness Coordinator, Nebraska Public Power District	June 1, 2015
EPDG 2	Attachment C-1, Semi-Monthly Alert and Notification System Siren Testing	16
EPDG 2	Attachment C-2, Quarterly EAS Newspaper and Radio Advisories	9
EPDG 2	Attachment C-5, Annual Full-Cycle Sound of the Alert and Notification System Sirens	13
EPDG 2	Attachment C-6, Annual Fixed Siren Maintenance, Revision 8	2014
EPDG 2	Attachment C-7, Issuance of NOAA/EAS Radio Receivers	2
EPDG 2	Attachment C-8, Quarterly Review/Update of NOAA/EAS Radio Receiver Recipient Data Base, Revision 4	2014

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EPIP 5.7.27	Alert and Notification System	17
EPIP 5.7.27.1	NOAA/EAS Radio Malfunction	9
EPIP 5.7.27.2	False Activation of the Alert and Notification System	7, 8

Section 1EP3: Emergency Response Organization Staffing and Augmentation System

Miscellaneous Documents

<u>Title</u>	<u>Date</u>
Evaluation Report for the Drill conducted September 20, 2013	October 11, 2013
Evaluation Report for the Drill conducted November 18, 2014	December 18, 2014
Evaluation Report for the Drill conducted December 11, 2014	January 8, 2015
Evaluation Report for the Drill conducted April 24, 2015	May 22, 2015

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EPIP 5.7.2	Emergency Director EPIP	32, 33

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-EP-01	Emergency Response Organization Responsibilities	26, 27
0-EP-02	Configuration Control of the Automated Notification System	4

Condition Reports (CRs)

CR-CNS-2013-06719	CR-CNS-2013-06720	CR-CNS-2013-06793	CR-CNS-2013-06794
CR-CNS-2013-06795	CR-CNS-2013-06796	CR-CNS-2013-06797	CR-CNS-2013-06798
CR-CNS-2013-06832			

Section 1EP5: Maintenance of Emergency Preparedness

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	10CFR50 Appendix E On-Shift Staffing Analysis, Revision 1	July 1, 2015
	After-Action Report for the October 12, 2014, Medical Incident	
	Cooper Nuclear Station Emergency Plan	66, 67
	CNS QA Functional Area Performance Assessment Report, Emergency Preparedness, July through October 2013	
	Cooper Nuclear Station Oversight Report, November 2013 through February 2014	
	Evaluation Report for the Exercise conducted January 28, 2014	February 18, 2014
	Evaluation Report for the Exercise conducted March 25, 2014	April 11, 2014
	Evaluation Report for the Exercise conducted May 20, 2014	June 11, 2014
	Evaluation Report for the Exercise conducted August 5, 2014	August 20, 2014
	Evaluation Report for the Exercise conducted September 15, 2014	October 6, 2014
	Evaluation Report for the RP Drill conducted December 30, 2014	December 30, 2014
	Evaluation Report for the Exercise conducted February 17, 2015	March 18, 2015

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Evaluation Report for the Exercise conducted July 21, 2015	August 14, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	December 11, 2014
	Nuclear Oversight Monthly Functional Area Summary Report	January 14, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	February 9, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	March 10, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	April 9, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	May 12, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	June 15, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	July 29, 2015
	Nuclear Oversight Monthly Functional Area Summary Report	September 29, 2015
	Self-Assessment: Assessment of Current CNS EP Related Performance against INPO EP Warning Flags and Related INPO 12-103 Objectives, EP.1, EP.2, and EP.3, Revision 1	April 15, 2015
2014-01	CNSFA Short Summary, March through June 2014	
2014-07	50.54(q) Analysis for EPIP 5.7.21, Maintaining Emergency Preparedness, Revision 51	January 7, 2014
2014-32	50.54(q) Analysis for replacing the area radiation monitor in the Central Alarm Station	May 23, 2014
2014-54	50.54(q) Analysis for EPIP 5.7.3, Incident Command Post, and EPIP 5.7.8.2, Activation of the Alternate TSC/OSC	July 30, 2014
2014-77	50.54(q) Analysis for EPIP 5.7.6, Revision 62	October 15, 2014
2014-78	50.54(q) Analysis for 6.PRM.302, Revision 8	October 15, 2014
2014-88	50.54(q) Analysis for TQD 659, Revision 6	November 25, 2014

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
2014-94	50.54(q) Analysis for EPIP 5.7.20, Protective Action Recommendations, Revision 25	December 8, 2014
2014-102	50.54(q) Analysis for EPIP 5.7.20, Protective Action Recommendations, Revision 25	December 22, 2014
2015-08	50.54(q) Analysis for Removal of PASS (EIPs 5.7.16 Revision 24, 5.7.17 Revision 44, 5.7.18 Revision 23, 5.7.19)	February 13, 2015
2015-12	50.54(q) Analysis for EPDG 2, Revision 23	February 12, 2015
2015-27	50.54(q) Analysis for Lesson Plan EPO-001-01-02, Degraded Core Bases, Revision 5	March 19, 2015
2015-51	50.54(q) Analysis for Emergency Plan Revision 66 and EPIP 5.7.1, Revision 52	June 22, 2015
2015-74	50.54(q) Analysis for EPDG 2, Attachment C-5, Revision 13	May 19, 2015
2015-114	50.54(q) Analysis for On-Shift Staff Analysis, Revision 1	July 20, 2015
2015-121	50.54(q) Analysis for Procedure 5.7.20, Protective Action Recommendations, Revision 27	August 14, 2015
2015-122	50.54(q) Analysis for Procedure 5.7.20, Protective Action Recommendations, Revision 27	August 14, 2015
EPD0010105	Dose Assessment and PARS Greater than 10 Miles	0
EPDG 2	Attachment C-3, Semi-Annual Dissemination of Emergency Public Information/Transient Population Information	9
EPDG 2	Attachment C-4, Semi-Annual Alert and Notification System Sign and Evacuation Verification	10
LO 2013-549	Pre NRC Inspection Assessment	February 28, 2014
LO 2014-172	Agency Preparedness Benchmarking	January 28, 2015
LO 2014-182	Pre NRC Inspection Assessment, Revision 1	April 24, 2015
LO 2015-0043-04	Snapshot Self-Assessment: Results of the April 14, 2015, Leadership and Assessment Meeting	July 7, 2015
ODG WCC	Operations Work Control Center Duties and Checklists	49
QAD2014001	QA Audit 13-09, Emergency Plan Supplemental Audit	January 28, 2014
QAD20140032	QA Audit 14-06, Emergency Plan	November 7, 2014

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
QAGOBS 2014-0126	Observed EP Group Meeting with State, Local, and other Governmental Representatives	September 3, 2014
WT 2013-0004-045	Conduct Regulatory Required Frequency Evaluation for the Emergency Plan	August 29, 2013
WT-2013-0443-092	Create a dose assessment and PAR lesson for TPP 101	June 25, 2014
WT 2014-0013-022	Conduct Regulatory Required Frequency Evaluation for the Emergency Plan	May 22, 2014

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0.29.4	Other Regulatory Reviews	23, 24
0-EP-01	Emergency Response Organization Responsibilities	26, 27
0-EN-EP-202	Equipment Important to Emergency Preparedness	1
0-QA-03	QA Concerns Development and Follow-up Processes	12
0-QA-05	QA Audit Requirements, Frequencies, and Scheduling	13, 14
EPIP 5.7.8	Activation of the OSC	25
EPIP 5.7.17	Dose Assessment	43, 44
EPIP 5.7.18	Offsite and Site Boundary Monitoring	23, 24
EPIP 5.7.21	Maintaining Emergency Preparedness: Emergency Exercises, Drills, Tests, and Evaluations	52, 53
EPIP 5.7.23	Activation of the JIC	15, 16
EPIP 5.7.28	Administration of Positional Instruction Manuals	8
TPP 101	Training Program Procedure, Emergency Response Organization	23, 24
TPP 102	Training Program Procedure, Emergency Preparedness Staff Training and Qualification	5

Condition Reports (CRs)

CR-CNS-2014-00196	CR-CNS-2014-00221	CR-CNS-2014-00547	CR-CNS-2014-00680
CR-CNS-2014-00838	CR-CNS-2014-01624	CR-CNS-2014-01657	CR-CNS-2014-01676
CR-CNS-2014-01757	CR-CNS-2014-01996	CR-CNS-2014-01997	CR-CNS-2014-02015
CR-CNS-2014-02122	CR-CNS-2014-02130	CR-CNS-2014-02471	CR-CNS-2014-02473

CR-CNS-2014-02674	CR-CNS-2014-02675	CR-CNS-2014-02843	CR-CNS-2014-03114
CR-CNS-2014-04047	CR-CNS-2014-04075	CR-CNS-2014-04552	CR-CNS-2014-04876
CR-CNS-2014-04911	CR-CNS-2014-05002	CR-CNS-2014-05079	CR-CNS-2014-05084
CR-CNS-2014-05094	CR-CNS-2014-05179	CR-CNS-2014-05183	CR-CNS-2014-05215
CR-CNS-2014-05292	CR-CNS-2014-08408	CR-CNS-2015-00066	CR-CNS-2015-00277
CR-CNS-2015-01104	CR-CNS-2015-01286	CR-CNS-2015-01480	CR-CNS-2015-02161
CR-CNS-2015-02573	CR-CNS-2015-04400	CR-CNS-2015-05380	CR-CNS-2015-05640
CR-CNS-2015-05665	CR-CNS-2015-06403		

Section 40A1: Performance Indicator Verification

Miscellaneous Documents

	<u>Title</u>	<u>Revision</u>
	Cooper Nuclear Station Mitigating Systems Performance Index (MSPI) Basis Document	9
EPDG 2	Attachment G-1, Emergency Preparedness Performance Indicator Guide	24

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-EN-LI-114	Performance Indicator Process, April 10, 2015	5 Change 2
EPIP 5.7.1	Emergency Classification	51, 52
EPIP 5.7.6	Emergency Notification	65, 66
EPIP 5.7.20	Protective Action Recommendations	25, 26
EPIP 5.7 COMMUN	Communications	25, 26

Condition Reports (CRs)

CR-CNS-2014-03686	CR-CNS-2014-06562	CR-CNS-2014-08200	CR-CNS-2014-08330
CR-CNS-2015-00935	CR-CNS-2015-01003	CR-CNS-2015-01274	CR-CNS-2015-03430
CR-CNS-2015-03917	CR-CNS-2015-04032	CR-CNS-2015-04622	CR-CNS-2015-05467
CR-CNS-2015-05575	CR-CNS-2015-07793		

Work Orders

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Section 4OA2: Problem Identification and Resolution

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-EN-HU-102	Human Performance Traps and Tools	13C2
0-EN-HU-105	Human Performance – Managed Defenses	12C1
0-EN-HU-106	Procedure and Work Instruction Use and Adherence	3C0
0-EN-LI-119	Apparent Cause Evaluation Process	16C3
0-EN-LI-121	Trending Performance Review Process	13C4
0-EN-OP-111	Operational Decision-Making Issue (ODMI) Process	9C1

Condition Reports (CRs)

CR-CNS-2008-08695	CR-CNS-2010-08009	CR-CNS-2011-05909	CR-CNS-2011-08506
CR-CNS-2012-08160	CR-CNS-2013-03205	CR-CNS-2013-07274	CR-CNS-2013-07296
CR-CNS-2013-07520	CR-CNS-2013-08003	CR-CNS-2013-08029	CR-CNS-2014-00520
CR-CNS-2014-00769	CR-CNS-2014-00799	CR-CNS-2014-00837	CR-CNS-2014-02014
CR-CNS-2014-04185	CR-CNS-2014-06444	CR-CNS-2015-00524	CR-CNS-2015-00777
CR-CNS-2015-00810	CR-CNS-2015-01016	CR-CNS-2015-01954	CR-CNS-2015-01998
CR-CNS-2015-02440	CR-CNS-2015-02492	CR-CNS-2015-02557	CR-CNS-2015-03916
CR-CNS-2015-04671	CR-CNS-2015-04724	CR-CNS-2015-04748	CR-CNS-2015-04843
CR-CNS-2015-05020	CR-CNS-2015-05765	CR-CNS-2015-05820	CR-CNS-2015-05878
CR-CNS-2015-05909	CR-CNS-2015-07118	CR-CNS-2015-07523	

Section 4OA3: Follow-up of Events and Notices of Enforcement Discretion

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.MS.201	Main Steam Isolation Valve Operability Test (IST)	19

Condition Reports (CRs)

CR-CNS-2015-00604	CR-CNS-2015-03456	CR-CNS-2015-04418
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Section 4OA5: Other Activities

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	10 CFR 72.212 Report	April 4, 2014
	Radiological Environmental Monitoring Report	May 15, 2014
	Radiological Environmental Monitoring Report	May 14, 2015
CNS RP-206	Area DLR Work Sheet (multiple)	Multiple Dates
CNS-1507-0048	CNS-NPPD ISFSI Survey Map	July 27, 2015
QA Audit 14-04	Radiological Controls	September 9, 2014
QAD 2014-0016	CNS QA Surveillance Report	July 6, 2014
23777	NUPIC Joint Audit of AREVA INC	September 3, 2014
23777	NUPIC Audit Closeout	July 7, 2015

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
NPP 10.36A	Fuel Selection – 61BTH Configuration 3 (multiple)	0
NPP 10.36B	Fuel Selection – 61BTH Configuration 4	1
0-CNS-LI-102	Corrective Action Process	2
0-EN-LI-100	Process Applicability Determination	12C1
0-EN-LI-101	10 CFR 50.59 Evaluations	9C0
0-EN-LI-112	10 CFR 72.48 Evaluations	9C0
6.LOG.601	Daily Surveillance Log – Modes 1, 2, and 3 (multiple)	111

Condition Reports (CRs)

CR-CNS-2013-05769	CR-CNS-2013-05807	CR-CNS-2013-06023	CR-CNS-2013-06325
CR-CNS-2013-06682	CR-CNS-2013-06699	CR-CNS-2013-07345	CR-CNS-2014-00716
CR-CNS-2014-01406	CR-CNS-2014-01499	CR-CNS-2014-01665	CR-CNS-2014-01732
CR-CNS-2014-01893	CR-CNS-2014-01988	CR-CNS-2014-02002	CR-CNS-2014-02128
CR-CNS-2014-02325	CR-CNS-2014-02518	CR-CNS-2014-02775	CR-CNS-2014-02824
CR-CNS-2014-02994	CR-CNS-2014-03180	CR-CNS-2014-03349	CR-CNS-2014-03599
CR-CNS-2014-03997	CR-CNS-2014-05695	CR-CNS-2014-06942	CR-CNS-2014-08659

CR-CNS-2015-02626 CR-CNS-2015-02735 CR-CNS-2015-02912 CR-CNS-2015-05177
CR-CNS-2015-06319 CR-CNS-2015-06378 CR-CNS-2015-08032

Process Applicability Determinations (72.48 Screens/Evaluations)

PAD 1310	PAD 1312	PAD 1313	PAD 1315
PAD 1323	PAD 1394	PAD 1395	PAD 1491
PAD 1536			

Work Orders

5009067