



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

May 1, 2015

Mr. Oscar A. Limpias, Vice President-Nuclear  
and Chief Nuclear Officer  
Nebraska Public Power District  
Cooper Nuclear Station  
P.O. Box 98  
Brownville, NE 68321-0098

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

Dear Mr. Limpias:

On March 31, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Cooper Nuclear Station. On April 9, 2015, the NRC inspectors discussed the results of this inspection with Mr. K. Higginbotham and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented one finding of very low safety significance (Green) in this report. This finding involved a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest this violation or significance of this non-cited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region 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

O. Limpias

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Sincerely,

**/RA/**

Greg Warnick, Chief  
Project Branch C  
Division of Reactor Projects

Docket No. 50-298  
License No. DPR-46

Enclosure: Inspection Report 05000298/2015001  
w/ Attachment: Supplemental  
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Letter to Oscar A. Limpias from Greg Warnick dated May 1, 2015

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

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000298

License: DPR-46

Report: 05000298/2015001

Licensee: Nebraska Public Power District

Facility: Cooper Nuclear Station

Location: 72676 648A Ave  
Brownville, NE

Dates: January 1 through March 31, 2015

Inspectors: J. Nance, Acting Senior Resident Inspector  
E. Coffman, Acting Senior Resident Inspector  
C. Henderson, Resident Inspector  
R. Azua, Senior Project Engineer  
D. Bradley, Resident Inspector  
R. Latta, Senior Reactor Inspector  
P. Nizov, Project Engineer

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

## SUMMARY

IR 05000298/2015001; 01/01/2015 – 03/31/2015; Cooper Nuclear Station; Surveillance Testing.

The inspection activities described in this report were performed between January 1 and March 31, 2015, by the resident inspectors at the Cooper Nuclear Station and inspectors from the NRC's Region IV office. One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. 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 5.4.1.a, associated with the inadequate Operation's Procedure 2.2.7, "Condensate Storage and Transfer System," Revision 56. Specifically, the procedure did not require that the affected system, either the high pressure coolant injection system or the reactor core isolation cooling system, be declared inoperable when one or more of the high pressure coolant injection or reactor core isolation cooling test return line isolation valves, HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, or RCIC-MOV-33, were moved off of their closed (passive safety function position) seats. The license entered this deficiency into their corrective action program for resolution as Condition Report CR-CNS-2015-00274.

The failure to establish and maintain a correct filling procedure required by Technical Specification 5.4.1.a. was a performance deficiency and resulted in the licensee's failure to declare the high pressure coolant injection and reactor core isolation cooling systems inoperable when required to do so. The performance deficiency is more than minor, and therefore a finding, because it is associated with the procedural 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, the high pressure coolant injection and reactor core isolation cooling systems were not declared inoperable when their test return line isolation valves, HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, and RCIC-MOV-33, were taken off their normally closed (passive safety function position) seats. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) 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, or two separate safety systems out-of-service for longer than their 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 has a cross-cutting aspect in the area of human performance associated with Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful

outcomes. Individuals implement appropriate error reduction techniques. Specifically, licensee personnel fell into a pattern of acceptance regarding Procedure 2.2.7. This resulted in a failure to question the lack of an operability caution statement, even though there was other guidance in the inservice inspection program to that effect [H.12].  
(Section 1R22)

## PLANT STATUS

The Cooper Nuclear Station began the inspection period at full power, where it remained for the rest of the reporting period except for minor reductions in power to support routine surveillances and rod pattern adjustments.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

#### 1R01 Adverse Weather Protection (71111.01)

##### Readiness for Impending Adverse Weather Conditions

##### a. Inspection Scope

On March 24, 2015, the inspectors completed an inspection of the station's readiness for impending adverse weather conditions. The inspectors reviewed plant design features, the licensee's procedures to respond to thunderstorms and heavy rain, and the licensee's planned implementation of these procedures. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant.

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

##### b. Findings

No findings were identified.

#### 1R04 Equipment Alignment (71111.04)

##### .1 Partial Walkdown

##### a. Inspection Scope

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

- January 30, 2015, Residual heat removal A containment spray function
- February 5, 2015, Diesel generator 2 fuel oil system; Smart Sample FY2008-01 and FY2012-001
- February 23, 2015, High pressure coolant injection walkdown with reactor core isolation cooling out of service

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 were correctly aligned for the existing plant configuration.



These activities constituted three partial system walkdown samples as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

.2 Complete Walkdown

a. Inspection Scope

On February 9, 2015, the inspectors performed a complete system walkdown inspection of the secondary containment system. The inspectors reviewed the licensee's procedures and system design information to determine the correct secondary containment system lineup for the existing plant configuration. The inspectors also reviewed outstanding work orders, open condition reports, 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 walkdown sample, as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

**1R05 Fire Protection (71111.05)**

.1 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 five plant areas important to safety:

- February 4, 2015, Standby gas treatment room, Fire Area I, Zone 5B
- March 9, 2015, Diesel generator room 1A and 1B and diesel oil day tank room, Fire Area IX, Zone 14A, C and Fire Area X, Zone 14B, D
- March 11, 2015, Control room and switchgear room 1F and 1G, Fire Area VII, Zone 10B, Fire Area II, Zone 3A, and Fire Area III, Zone 3B
- March 17, 2015, Reactor building quads, Fire Area I, Zone 1A, B, C, D and Zone 2B, D
- March 18, 2015, Intake structure and service water pump room, Fire Area XI, Zone 20A, B

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 five quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

.2 Annual Inspection

a. Inspection Scope

On March 27, 2015, the inspectors completed their annual evaluation of the licensee's fire brigade performance. This evaluation included observation of two fire drills:

- March 22, 2015, unannounced drill, simulated fire in the Bulk Hydrogen Storage Facility
- March 27, 2015, unannounced drill, simulated fire in the Yard Technical Support Building (TSB) Heating Ventilation and Air Conditioning units, SW corner of the TSB 903

During these drills, the inspectors evaluated the capability of the fire brigade members, the leadership ability of the brigade leader, the brigade's use of turnout gear and fire-fighting equipment, and the effectiveness of the fire brigade's team operation. The inspectors also reviewed whether the licensee's fire brigade met NRC requirements for training, dedicated size and membership, and equipment.

These activities constituted one annual inspection sample, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

**1R06 Flood Protection Measures (71111.06)**

a. Inspection Scope

On January 29, 2015, the inspectors completed an inspection of the station's ability to mitigate flooding due to internal causes. After reviewing the licensee's flooding analysis, the inspectors chose one plant area containing risk-significant structures, systems, and components (SSCs) that were susceptible to flooding:

- Reactor building, northwest quad, residual heat removal A; Smart Sample FY2007-02

The inspectors reviewed plant design features and licensee procedures for coping with internal flooding. The inspectors walked down the selected areas to inspect the design features, including the material condition of seals, drains, and flood barriers. The inspectors evaluated whether operator actions credited for flood mitigation could be successfully accomplished.

These activities constituted completion of one flood protection measures sample as defined in Inspection Procedure 71111.06.

b. Findings

No findings were identified.

**1R07 Heat Sink Performance (71111.07)**

a. Inspection Scope

The inspectors reviewed licensee programs to verify heat exchanger performance and operability for the following heat exchangers:

- Division 1, Residual heat removal heat exchanger, number 1
- Divisions 1 and 2, Reactor equipment cooling heat exchangers
- Diesel Generator 1, Jacket water and lube oil heat exchanger

The inspectors verified whether testing, inspection, maintenance, and chemistry control programs were adequate to ensure proper heat transfer. The inspectors verified that the periodic testing and monitoring methods, as outlined in commitments to NRC Generic Letter 89-13, utilized proper industry heat exchanger guidance. Additionally, the inspectors verified that the licensee's chemistry program ensured that biological fouling was properly controlled between tests. The inspectors reviewed previous maintenance records of the heat exchangers to verify that the licensee's heat exchanger inspections adequately addressed structural integrity and cleanliness of their tubes. Specific documents reviewed during this inspection are listed in the attachment.

These activities constituted completion of three samples of the triennial heat sink inspection samples as defined in Inspection Procedure 71111.07-05.

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 March 12, 2015, the inspectors observed an evaluated simulator scenario performed by 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 during the requalification activities.

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 February 4, 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 and heightened risk due to the quarterly reactor downpower for surveillances, maintenance, and rod pattern adjustment. Also included was work associated with the motor generator (MG) set B scoop tube mechanical lockout. The inspectors observed the prejob briefs for these activities.

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.

**1R12 Maintenance Effectiveness (71111.12)**

a. Inspection Scope

The inspectors reviewed four instances of degraded performance or condition of safety-related SSCs:

- January 29, 2015, RHR-MOV-27B pinion gear came off and cracked during surveillance
- February 3, 2015, Diesel generator 2, 50.65(a)(1) evaluation
- February 6, 2015, Supplemental diesel generator 50.65(a)(1) evaluation
- February 17, 2015, Fire protection system low water pressure alarm, FP-PS-651E, credited in station's internal flooding analysis to mitigate flooding in control building corridor

The inspectors reviewed the extent of condition of possible common cause SSCs 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 four 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:

- February 17, 2015, High pressure coolant injection maintenance window
- February 24, 2015, Reactor core isolation cooling maintenance window

The inspectors verified that these 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.

The inspectors also observed portions of two emergent work activities that had the potential to cause an initiating event or to impact barrier integrity:

- January 23, 2015, Reactor recirculation - MG set A scoop un-demand position change and lockout
- February 6, 2015, Reactor recirculation – MG set B scoop feed potentiometer replacement

The inspectors verified that the licensee appropriately developed and followed a work plan for these activities. The inspectors verified that the licensee took precautions to minimize the impact of the work activities on unaffected SSCs.

These activities constituted completion of four 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 SSCs:

- January 21, 2015, Operability determination of the incorrect size found in-the-field for the service water pump split gland stud and nuts
- January 22, 2015, Operability determination of reactor recirculation - MG set A un-demand response causing increased flow
- January 29, 2015, Operability determination of scram discharge volume Valve CRD-AOV-CV38A for increasing inservice test stroke timing
- March 2, 2015, Operability determination of the control room emergency filter system

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSCs 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 SSCs.

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

### b. Findings

No findings were identified.

## **1R18 Plant Modifications (71111.18)**

### a. Inspection Scope

The inspectors reviewed one permanent plant modification that affected risk-significant SSCs:

- January 15, 2015, Emergency condensate storage tank; local tank level modification to seismic Class I

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 SSC as modified.

These activities constituted completion of one sample of permanent plant 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 six post-maintenance testing activities that affected risk-significant SSCs:

- January 20, 2015, Residual heat removal B maintenance window
- February 2, 2015, Standby gas treatment A
- February 6, 2015, Reactor recirculation – MG set B scoop tube potentiometer replacement
- February 17, 2015, High pressure coolant injection
- March 28, 2015, Emergency station service transformer
- March 30, 2015, Undervoltage testing, Division 1

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 six 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 five risk-significant surveillance tests and reviewed test results to verify that these tests adequately demonstrated that the SSCs were capable of performing their safety functions:

Inservice tests:

- February 18, 2015, Diesel generator 2 fuel oil transfer pump inservice test surveillance testing

Containment isolation valve surveillance tests:

- February 18, 2015, Secondary containment reactor building heat and ventilation valve operability

Other surveillance tests:

- January 28, 2015, Scram discharge volume Valve CRD-AOV-CV38A stroke time inservice test surveillance
- February 18, 2015, HPCI-MO-21 and RCIC-MO-30 test line valves stroke time inservice test surveillance
- February 23, 2015, Primary containment isolation system main steam line high flow channel functional test, Division 2

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

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

b. Findings

Introduction. The inspectors identified a non-cited violation of Technical Specification 5.4.1.a, associated with the inadequate Operation's Procedure 2.2.7, "Condensate Storage and Transfer System," Revision 56. Specifically, the procedure did not require that the affected system, either the high pressure coolant injection (HPCI) system or the reactor core isolation cooling (RCIC) system, be declared inoperable when one or more of the HPCI or RCIC test return line isolation valves, HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, or RCIC-MOV-33, were moved off of their closed (passive safety function position) seats.

Description. The inspectors reviewed Surveillance Procedures 6.HPCI.201, "HPCI Valve Operability Test (IST)," Revision 20, and 6.RCIC.201, "RCIC Power Operated Valve Operability Test (IST)," Revision 20, and Operations Procedure 2.2.7, "Condensate Storage and Transfer System," Revision 56. The inspectors identified that the HPCI and RCIC systems test return isolation valves HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, and RCIC-MOV-33 did not have associated inservice testing acceptance ranges or operability limits for the closing stroke times, nor did the operations procedure require the HPCI or RCIC systems to be declared inoperable while the test return isolation valves were throttled open. The valves in question were required to reposition closed upon receipt of a HPCI or RCIC systems initiation signal. The license initiated Condition Report CR-CNS-2015-00274 to capture this issue in the station's corrective action program.

During their review of Condition Report CR-CNS-2015-00274, the licensee determined the Inservice Testing Program (based on supportive plant documents) considered these valves to be normally closed valves with a passive safety function in the closed position,



which is consistent with the Motor Operated Valve Program. Based on this valve position, the only required test, in the Inservice Testing Program, was the valve position indication test. Subsequently, these valves were declared inoperable when taken out of their normally closed position. In contrast to this requirement, the NRC noted that Operation Procedure 2.2.7, "Condensate Storage and Transfer System," Revision 56, did not provide guidance to declare these valves inoperable prior to opening the valves. Since this was inconsistent with the specified requirements for the Inservice Testing and Motor Operated Valve Programs, the licensee generated the following corrective actions:

- Corrective Action -1: Update Operating Procedure 2.2.7 to ensure that the high pressure coolant injection system is declared inoperable prior to opening HPCI-MOV-21 and/or HPCI-MOV-24.
- Corrective Action -2: (1) Review the procedure database and validate that Operating Procedure 2.2.7 was the only procedure that opens RCIC-MOV-30 and RCIC-MOV-33, taking RCIC out of its standby lineup. (2) Validate the Operations Department input that the RCIC system does not have a safety-related initiation time. The Updated Safety Analysis Report discussion of injecting within 30 seconds was considered a design attribute only. (3) Revise Operating Procedure 2.2.7 and any other procedure, as necessary, based on the responses to part 1 and 2 of this corrective action.

The inspectors reviewed Condition Report CR-CNS-2015-00274, the Updated Safety Analysis Report, Technical Specifications and Bases document, and Surveillance Procedure 6.RCIC.314, "RCIC Simulated Actuation Test (IST)," Revision 17.

The inspectors identified the following basis for the above licensee position and the corrective actions documented in Condition Report 2015-00274:

- These valves [HPCI-MOV-21/HPCI-MOV-24] performed a passive safety function in the closed direction to isolate the high pressure coolant injection recirculation test line to prevent diversion of system injection flow to the reactor vessel following a loss-of-coolant accident.

Although these valves were capable of automatic closure, upon HPCI system initiation, due to low reactor water level (Level 2) or high drywell pressure signal, this automatic closure was not considered a safety function. Since these valves were not required to change position to perform their safety function, they were considered passive in the closed direction.

Based on the above information, the inspectors determined that the HPCI and RCIC test return line isolation valves have a safety function in the closed position. The inspectors then concluded that the licensee Operation's Procedure 2.2.7 did not provide adequate instruction to operations personnel, to declare the RCIC or HPCI systems inoperable when one or more of their respective system test return line isolation valves were moved off of their valve seats.

Analysis. The failure to establish and maintain a correct filling procedure required by Technical Specification 5.4.1.a. was a performance deficiency and resulted in the

licensee's failure to declare the HPCI and RCIC systems inoperable when required to do so. This performance deficiency is more than minor, and therefore a finding, because it is associated with the procedural 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, the HPCI and RCIC systems were not declared inoperable when their test return line isolation valves, HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, and RCIC-MOV-33, were taken off their normally closed (passive safety function position) seats. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) 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, or two separate safety systems out-of-service for longer than their 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 has a cross-cutting aspect in the area of human performance associated with Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction techniques. Specifically, the licensee personnel fell into a pattern of acceptance regarding Procedure 2.2.7. This resulted in a failure to question the lack of an operability caution statement, even though there was other guidance in the inservice inspection program to that effect [H.12].

Enforcement. Technical Specification 5.4.1.a requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A to Regulatory Guide 1.33, "Quality Assurance Program Requirements," of February 1978. Section 4 of Regulatory Guide 1.33 recommends specific instructions (procedures) for energizing, filling, venting, draining, startup, shutdown, and changing modes of operation should be prepared, as appropriate for the following systems: (f) High Pressure Coolant Injection and (g) Reactor Core Isolation Cooling System. Contrary to the above, prior to April 7, 2015, Operations Procedure 2.2.7, "Condensate Storage and Transfer System," did not require the licensee to declare the affected system inoperable when throttling open HPCI or the RCIC system isolation valves, HPCI-MOV-21, HPCI-MOV-24, RCIC-MOV-30, or RCIC-MOV-33. The licensee documented this issue in its corrective action program as Condition Report CR-CNS-2015-00274 and made changes to the procedure to ensure that the HPCI and RCIC systems are declared inoperable when their respective test return line isolation valves are throttled off their closed seats. Because the violation was of very low safety significance and was entered into the licensee's corrective action program, this violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy: NCV 05000298/2015001-01, "Inadequate Operations Procedure."

#### 4. OTHER ACTIVITIES

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

#### 4OA1 Performance Indicator Verification (71151)

##### .1 Unplanned Scrams per 7000 Critical Hours (IE01)

###### a. Inspection Scope

The inspectors reviewed licensee event reports (LERs) for the period of January 1 through December 31, 2014, to determine the number of scrams that occurred. The inspectors compared the number of scrams reported in these LERs to the number reported for the performance indicator. Additionally, the inspectors sampled monthly operating logs to verify the number of critical hours during the period. 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 data reported.

These activities constituted verification of the unplanned scrams per 7000 critical hours performance indicator, as defined in Inspection Procedure 71151.

###### b. Findings

No findings were identified.

##### .2 Unplanned Power Changes per 7000 Critical Hours (IE03)

###### a. Inspection Scope

The inspectors reviewed operating logs and corrective action program records for the period of January 1 through December 31, 2014, to determine the number of unplanned power changes that occurred. The inspectors compared the number of unplanned power changes documented to the number reported for the performance indicator. Additionally, the inspectors sampled monthly operating logs to verify the number of critical hours during the period. 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 data reported.

These activities constituted verification of the unplanned power outages per 7000 critical hours 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 Annual Follow-up of Selected Issues

#### a. Inspection Scope

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

- On February 4, 2015, CR-CNS-2014-08009, apparent cause evaluation for RHR-MOV-27B pinion gear surveillance failure

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to correct the condition.

- On March 30, 2015, CR-CNS-2015-00076, apparent cause evaluation for emergency response procedure sample line

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions should be adequate to correct the condition.

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

#### b. Findings

No findings were identified.

## **4OA6 Meetings, Including Exit**

### Exit Meeting Summary

On February 27, 2015, the inspectors presented the final inspection results of the triennial heat sink inspection to Mr. Oscar Limpias, Vice President-Nuclear and Chief Nuclear Officer, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On April 9, 2015, the inspectors presented the inspection results of the Integrated Inspection to Mr. K. Higginbotham, 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

J. Ackerman, Heat Exchanger Program Engineer  
T. Barker, Engineering Program and Components Manager  
L. Dewhirst, Corrective Action and Assessment Manager  
K. Dia, System Engineering Manager  
R. Estrada, Design Engineering Manager  
D. Goodman, Operations Manager  
M. Hug, Assistant Maintenance Manager  
B. Kirkpatrick, Licensing Specialist  
O. Limpas, Vice President and Chief Nuclear Officer  
R. Penfield, Director Nuclear Safety Assurance  
J. Shaw, Licensing Manager  
M. Tackett, Outage Manager  
K. Tom, Assistant to the Director of Engineering  
A. Walters, Chemistry Manager

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened and Closed

05000298/2015001-01 NCV Inadequate Operations Procedure (Section 1R22)

**LIST OF DOCUMENTS REVIEWED**

**Section 1R04: Equipment Alignment**

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
08-009	Engineering Evaluation, "DG Day Tank and Fuel Oil Storage Tanks"	0
95-01	NEDC, "Z Sump Fill Rate Due to Condensation in the SGTs Discharge Lines and ERP"	0
97-012	NEDC, "Emergency Diesel Generator Fuel On-Site Storage Technical Specification"	3
98-04	NEDC, "Drainage Rate Into Z Sump to Determine Adequacy of One Pump Operation"	0
98-14	NEDC, "Time to Freezing of Z Sump Discharge Line after Heat Trace Failure"	0
2037	Burns and Roe, "Cooper Nuclear Station Flow Diagram H&V Standby Gas Treatment and Off Gas Filters"	November 4, 2014

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
2040 Sheet 1	Burns and Roe, "Cooper Nuclear Station Flow Diagram Residual Heat Removal System"	N82
4840471	Part Evaluation	
10875873	Technical Evaluation	
729E720BB	Process Diagram, "High Pressure Coolant Injection System"	

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2.2.33A	Operations Procedure, "High Pressure Coolant Injection System Component Checklist"	29
2.2.33B	Operations Procedure, "High Pressure Coolant Injection System Instrument Valve Checklist"	8
2.3_DG2	Operations Procedure, "Panel DG-2 – Annunciator DG-2"	19
5.3EMPWR	Emergency Procedure, "Emergency Power during Modes 1, 2, and 3"	48

Condition Reports (CRs)

CR-CNS-2011-02679 CR-CNS-2015-00506 CR-CNS-2015-00649

Work Orders

4900027 4900028 4900029 4900030 5002489

**Section 1R05: Fire Protection**

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
09-102	NEDC, "Flooding"	1
15-0015	Fire Permit – Intake Structure	
15-0016	Fire Permit – Intake Structure	

Procedures

<u>Number</u>	<u>Title</u>
	Fire Pre-plan
EOP-5A	Secondary Containment Control

## Action Requests

2012-01597      2015-00274

## **Section 1R06: Flood Protection Measures**

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
01-057	Engineering Evaluation, "Class I Restrained-Seismic Design Basis of Class IIS Piping"	0
09-0102	NEDC, "Internal Flooding – HELB, MELB, and Feedwater Line Break"	1

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
15.Sump.101	Surveillance (Non-TS) Procedure, "Sump Pump Operability Test"	22
15.Sump.301	Surveillance (Non-TS) Procedure, "Sump Fill Rate Determination"	7

### Condition Reports (CRs)

CR-CNS-2014-00271

## **Section 1R07: Heat Sink Performance**

### Calculations

<u>Number</u>	<u>Title</u>	<u>Revision</u>
09-011	NEDC, "Instrument Accuracy For Procedure 13.15.1, REC Heat Exchanger Performance Analysis"	0
10-069	NEDC, "Service Water Flow Instrument Loops Indication Uncertainty"	0
11-140	NEDC, "Cooper Nuclear Station Service Water System Analysis"	1
13-283	2013 Test Data Analysis and Thermal Performance Evaluation RHR Heat Exchanger A	0
91-239	NEDC, "DGLO/DGJW/DG Intercoolers Heat Exchanger Evaluation"	5
92-034	NEDC, "Water Hammer Analysis of Service Water System"	3C1



### Calculations

<u>Number</u>	<u>Title</u>	<u>Revision</u>
92-034	NEDC, "Water Hammer Analysis of Service Water System"	3C2
93-184	NEDC, "RHR Heat Exchangers Thermal Performance and Tube Plugging Margin"	3
93-185	NEDC, "RHR Heat Exchanger Thermal Performance During Power Operations With Increased Tube Plugging Margin"	4
94-021	NEDC, "REC-HX-A and REC-HX-B Maximum Allowable Accident Case Fouling"	7C1

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Diesel Generator System Health Report	January 2015
	Heat Exchanger Program System Health Report	January 12, 2015
	REC System Health Report	January 2015
	RHR System Health Report	January 2015
0-EN-LI-104	Heat Exchanger Self-Assessment	9C2
0-EN-LI-104	Self-Assessment and Benchmark Process, Attach. 9.2	9C2
93-0508	RHR Heat Exchanger Manufactures Data Sheet	October 6, 1993
2156-4	REC Heat Exchanger Manufactures Data Sheet	June 17, 1968

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
6.REC.501	ASME Section XI Periodic Pressure Test of Class 2 and 3 Reactor Building Closed Cooling Water (REC) System	13
6.1 RHR.501	ASME Section XI System Leakage Test Class 2 SW System Loop A	13
6.1 SW.501	ASME Section XI System Leakage Test Class 3 SW System Loop A	17
6.1SWBP-101	RHR Service Water Booster Pump Flow Test and Valve Operability Test (Div. 1)	December 10, 2014
6.2SWBP-101	RHR Service Water Booster Pump Flow Test and Valve Operability Test (Div. 2)	December 10, 2014
7.2.42	Heat Exchanger Cleaning	28

## Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
7.2.42.1	Rec Heat Exchanger Maintenance	9
7.2.42.2	RHR Heat Exchanger Maintenance	9
7.2.42.3	Heat Exchanger Tube Plugging	15
8.2.1	Chemistry Analysis Schedule	68
8.3	Chemistry Control Parameters and Limits	68
13.15.1	Reactor Equipment Cooling Heat Exchanger Performance Analysis B (Completed January 25, 2015)	33
13.15.1	Reactor Equipment Cooling Heat Exchanger Performance Analysis B (Completed November 5, 2014)	33
13.17.2	Thermal Performance Test Procedure RHR Heat Exchanger A (Completed June 4, 2013)	10
13.17.2	Thermal Performance Test Procedure RHR Heat Exchanger A (Completed November 30, 2010)	8
EN-3.30	Macroscopic Biological Fouling Organism Sampling	9
EN-3.34	Heat Exchanger Implementation	14
EN-DC-184	NRC Generic Letter 89-13 Service Water Program	June 20, 2012
EN-DC-316	Heat Exchanger Performance and Condition Monitoring	June 20, 2012
EN-DC-325	Component Performance Monitoring	January 25, 2012
EN-DC-329	Engineering Programs Control and Oversight	August 5, 2014
EP- 3.48	Service Water Program Implementation	June 20, 2012
MP-7.2.42	Heat Exchanger Cleaning	October 15, 2013
MP-7.2.42.1	REC Heat Exchanger Maintenance	February 15, 2013
MP-7.2.42.2	RHR Heat Exchanger Maintenance	October 15, 2013
MP-7.2.42.3	Heat Exchanger Tube Plugging	15
MP-7.2.42.3	Heat Exchanger Tube Plugging	July 18, 2013

### Vendor Documents

<u>Title</u>	<u>Date</u>
Masters-Lee NDE Eddy Current Examination Final Report RHR Heat Exchanger B	February 2012
Masters-Lee NDE Eddy Current Examination Final Report RHR Heat Exchanger A	November 2011
Graftel, Test Data for June 2013 RHR Heat Exchanger A Testing	June 11, 2013

### Condition Reports (CRs)

CR-CNS-2012-00667	CR-CNS-2012-00937	CR-CNS-2012-03302	CR-CNS-2012-03997
CR-CNS-2012-04651	CR-CNS-2012-04859	CR-CNS-2012-05131	CR-CNS-2012-05451
CR-CNS-2012-05740	CR-CNS-2012-05916	CR-CNS-2012-08780	CR-CNS-2012-09298
CR-CNS-2013-00240	CR-CNS-2013-00755	CR-CNS-2013-00838	CR-CNS-2013-00843
CR-CNS-2013-01467	CR-CNS-2013-02339	CR-CNS-2013-04244	CR-CNS-2013-05252
CR-CNS-2013-07292	CR-CNS-2013-07610	CR-CNS-2013-08600	CR-CNS-2014-00213
CR-CNS-2014-00666	CR-CNS-2014-00699	CR-CNS-2014-00884	CR-CNS-2014-00971
CR-CNS-2014-01432	CR-CNS-2014-01510	CR-CNS-2014-02662	CR-CNS-2014-04453
CR-CNS-2014-04549	CR-CNS-2014-04594	CR-CNS-2014-04680	CR-CNS-2014-04688
CR-CNS-2014-04843	CR-CNS-2014-05319	CR-CNS-2014-06319	CR-CNS-2014-08078
CR-CNS-2014-08492	CR-CNS-2014-08851	CR-CNS-2014-08854	CR-CNS-2014-08868
CR-CNS-2015-00577	CR-CNS-2015-00593	CR-CNS-2015-00606	CR-CNS-2015-01073

### Work Orders

4718577	4803509	4973760	4948717	4973761
5003396				

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

#### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SKC0540150	Lesson, "OPS Cooling Water Trouble, Tornado, Loop"	1

## Section 1R12: Maintenance Effectiveness

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
VM-0986	Limatorque Composite Manual	December 16, 2014
09-0102	NEDC, "Internal Flooding – HELB, MELB, and Feedwater Line Break"	1
13-030	Engineering Evaluation, "Internal Flooding – HELB, MELB, and Feedwater Line Break"	0

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-108	Entergy Procedure, "Event Notification and Reporting"	10C0
0-EN-LI-102-02	Entergy Procedure, "CR Closure Quality"	8C0
2.3_FP-4	Operations Procedure, "Fire Protection – Annunciator 4"	11
3.11	Engineering Procedure, "Vendor Manual Control and Use"	25
5.1Break	Emergency Procedure, "Pipe Break Outside Secondary Containment"	17
6.2RHR.201	Surveillance Procedure, "RHR Power Operated Valve Operability Test (IST)(DIV 2)"	26

### Condition Reports (CRs)

CR-CNS-2014-01758 CR-CNS-2014-08009 CR-CNS-2014-08112 CR-CNS-2014-08250  
CR-CNS-2014-08357 CR-CNS-2014-08903 CR-CNS-2015-00560

## Section 1R13: Maintenance Risk Assessments and Emergent Work Control

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	
2015-0071	Barrier Control Permit	
EOP-1A	Emergency Operating Procedure 5.8.1, Attachment 1	18

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-116	Entergy Procedure, "Infrequently Performed Tests or Evolutions"	12C0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-CNS-WM-104	Station Procedure, "On-Line Schedule Risk Assessment"	2
0-Protected-Eqp	Station Procedure, "Protected Equipment Program"	34
2.2.67	Operations Procedure, "Reactor Core Isolation Cooling System"	70
2.2.67.1	Operations Procedure, "Reactor Core Isolation Cooling System Operations"	31
2.3_9-4-1	Operations Procedure, "Panel 9-4-Annunicator 9-4-1"	52
5.8.1	Emergency Procedure, "RPV Pressure Control Systems"	26
7.2.85	Maintenance Procedure, "Reactor Recirculation Motor Generator "B" Scoop Tube Clamping Procedure"	4

Condition Reports (CRs)

CR-CNS-2015-00385 CR-CNS-2015-00626 CR-CNS-2015-00690

Work Orders

5028889 5048686 5058925 5062658

**Section 1R15: Operability Determinations and Functionality Assessments**

Miscellaneous Documents

<u>Number</u>	<u>Title</u>
11003951	Notification

Condition Reports (CRs)

CR-CNS-2014-01758 CR-CNS-2014-08258 CR-CNS-2014-08590 CR-CNS-2014-08593  
CR-CNS-2014-08636 CR-CNS-2014-08647 CR-CNS-2014-08787 CR-CNS-2014-08833  
CR-CNS-2014-08895 CR-CNS-2015-00327 CR-CNS-2015-00385 CR-CNS-2014-00386

Work Orders

5008890

## Section 1R18: Plant Modifications

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2043	Burns & Roe Drawing, "Cooper Nuclear Station Flow Diagram Reactor Core Isolation Coolant and Reactor Feed Systems"	N55
6034624	Change Evaluation Document, "Emergency Condensate Storage Tank (ECST) Level Indication During Extended Loss of AC Power"	0

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
2.2.7	Operations Procedure, "Condensate Storage and Transfer System"	56
5.3SBO	Emergency Procedure, "Station Blackout"	33
6.LOG.601	Surveillance Procedure, "Daily Surveillance Log – Modes 1, 2, and 3"	117

### Condition Reports (CRs)

CR-CNS-2015-00238

## Section 1R19: Post-Maintenance Testing

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.HPCI.103	Surveillance Procedure, "HPCI IST and 92 Day Test Mode Surveillance Operation"	51
6.HPCI.201	Surveillance Procedure, "HPCI Valve Operability Test (IST)"	20
6.HPCI.314	Surveillance Procedure, "HPCI Pump Discharge Flow Indication Calibration"	12
6.HPCI.2014	Surveillance Procedure, "HPCI-SOV-SSV64 and HPCI-SOV-SSV87 IST Closure IST Test"	11
6.MISC.401	Surveillance Procedure, "Position Indicator Inservice Testing (IST)"	17
6.RHR.303	Surveillance Procedure, "RHR System Loop B Flow Channel Calibration"	10
6.1EE.302	Surveillance Procedure, "4160V Bus 1F Undervoltage Relay and Relay Timer Functional Test (Div 1)"	34

## Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.1SGT.301	Surveillance Procedure, "SGT Operability Test/Off Gas Flow Monitor Channel Functional Test IST (DIV 1)"	13
6.2MISC.503	Surveillance Procedure, "31 Day Venting of ECCS Injection/Spray Subsystem Piping (DIV 2)"	4
6.2RHR.101	Surveillance Procedure, "RHR Test Mode Surveillance Operation (IST)(DIV 2)"	32
6.2RHR.201	Surveillance Procedure, "RHR Power Operated Valve Operability Test (IST)(DIV 2)"	26
7.2.85	Maintenance Procedure, "Reactor Recirculation Motor Generator "B" Scoop Tube Clamping Procedure"	4
7.3.32	Maintenance Procedure, "Station Temporary Grounding"	11
7.3.44	Maintenance Procedure, "Transformer Turns Ration Testing"	3
14.6.21	Instrument and Control Procedure, "Soldering Guidelines and Soldering Inspection Criteria"	3
EN-IS-124	Industrial Safety Planning & Job Safety Hazards Analysis	4

## Condition Reports (CRs)

CR-CNS-2015-00626 CR-CNS-2015-00690

## Work Orders

4880360	4916140	4916141	4943930	4946743
4946850	4946855	4962158	4999418	4999423
4999430	4999463	4999478	5002465	5002481
5002634	5002765	5002918	5003157	5003158
5003159	5003464	5003676	5012032	5012128
5016227	5028889	5043295	5048686	5062658

## **Section 1R22: Surveillance Testing**

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
91-045	NEDC, "Diesel Fuel Transfer Flow Rate with 8 3/8" Pump Impeller"	2

### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Engineering Evaluation, "Determination of Fuel Oil Specific Gravity for Use in Diesel Fuel Oil Transfer Pump IST Testing"	0

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
6.CRD.201	Surveillance Procedure, "North and South SDV Vent and Drain Valve Cycling, Open Verification, and Timing Test"	22
6.DG.604	Surveillance Procedure, "Diesel Fuel Oil Storage Tank, Bunker A & B, Quality Test"	22
6.DG.605	Surveillance Procedure, "Diesel Fuel Oil Incoming Truck Sampling"	21
6.HPCI.201	Surveillance Procedure, "HPCI Valve Operability Test (IST)"	20
6.HPCI.311	Surveillance Procedure, "HPCI Turbine Trip and Initiation Logic Functional Test"	8
6.HPCI.318	Surveillance Procedure, "HPCI Simulated Actuation Test (IST)"	20
6.RCIC.201	Surveillance Procedure, "RCIC Power Operated Valve Operability Test (IST)"	20
6.RCIC.308	Surveillance Procedure, "RCIC Turbine Trip and Initiation Logic Functional Test"	8
6.RCIC.314	Surveillance Procedure, "RCIC Simulated Actuation Test (IST)"	17
6.SC.201	Surveillance Procedure, "Secondary Containment (Reactor Building H&V) Valve"	34
6.2PCIS.703	Surveillance Procedure, "PCIS Main Steam Line High Flow Channel Functional Test (DIV 2)"	3
6.2DG.401	Surveillance Procedure, "Diesel Generator Fuel Oil Transfer Pump IST Flow Test (DIV 2)"	26
6.2RHR.702	Surveillance Procedure, "RHR Loop B Drywell Pressure Containment Spray Channel Functional Test (DIV 2)"	8

### Condition Reports (CRs)

CR-CNS-2014-00274 CR-CNS-2015-00493



Work Orders

4946771

**Section 40A1: Performance Indicator Verification**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0-EN-LI-114	Entergy Procedure, "Performance Indicator Process"	5C1

**Section 40A2: Problem Identification and Resolution**

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
VM-0986	Limitorque Composite Manual	December 16, 2014

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
3.11	Engineering Procedure, "Vendor Manual Control and Use"	25
6.2RHR.201	Surveillance Procedure, "RHR Power Operated Valve Operability Test (IST)(DIV 2)"	26

Condition Reports (CRs)

CR-CNS-2014-08009