Inspection Report

July 14, 2016

Any Station, Unit 1

Quarterly Integrated Report
April 1, 2016 through June 30, 2016

SUMMARY

From April1, 2016 to June 30, 2016, NRC inspectors continued monitoring licensee's performance at Any Station Unit 1 through baseline inspections in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html for more information.

List of Findings and Violations

	Significance/Severity	Description	Cross-cutting Aspect	Report Section
01	Green (Occupational Radiation Safety)	Failure to Post High Radiation Area Leads to Unplanned Exposure	H.4 Teamwork	IP 71124.01
	NCV 05000###/I2Q2016-01 Open and Closed			

Additional Tracking Items

Opened

URI 05000###/I2Q2016-02	Tornado Protection of the Emergency Diesel Fuel Oil Tank Vent Lines	IP 71111.12

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INSPECTION SCOPE AND RESULTS

All inspections and inspection samples were conducted in accordance with the approved inspection procedure (IP) in effect at the beginning of the inspection unless otherwise noted. A list of currently approved IPs with their attached revision history are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Documents reviewed are listed in the documents reviewed section of this report. Inspectors performed plant status activities described in Inspection Manual Chapter (IMC) 2515 Appendix D, "Plant Status" and conducted routine reviews of items entered into the licensee's Corrective Action Program (CAP) in accordance with IP 71152, "Problem Identification and Resolution" Section 02.01. Inspectors used the Commission's rules and regulations as the criteria for determining compliance along with established licensee standards as the criteria for assessing licensee performance.

REACTOR SAFETY

Adverse Weather Protection, IP 71111.01

Summer Readiness Sample. Inspectors evaluated summer readiness of both offsite alternating current (AC) and onsite alternate AC power systems in accordance with IP Sections 02.01 and 02.05.

Equipment Alignment, IP 71111.04

Two Partial System/Train Walkdown Samples. Inspectors evaluated system configurations during partial walkdowns of the following systems/trains in accordance with IP Sections 02.01 and 02.03:

(1) Emergency diesel generator fuel oil fill system
(2) Conventional service water pump 1A

Fire Protection Annual/Quarterly, IP 71111.05AQ,

Two Area Fire Protection Samples. Inspectors evaluated fire protection program implementation in the following selected areas in accordance with IP Sections 02.01 and 02.03:

(1) 1PFP-RB1-2, High Pressure Coolant Injection Room, Elevation -27 foot
(2) 1PFP-RB1-1c & 1d, North and South Residual Heat Removal Rooms, Elevation -27 foot

Fire Brigade Sample. Inspectors evaluated fire brigade performance in accordance with IP Sections 02.02 and 02.03.

Maintenance Effectiveness, IP 71111.12,

Two Maintenance Effectiveness Samples. Inspectors evaluated maintenance activities associated with the following equipment performance issues:

(1) Tornado protection of the emergency diesel generator (EDG) fuel oil tank vents

Unresolved Item (Open)	Tornado Protection of the Emergency Diesel Fuel Oil Tank Vent Lines
Description: On May 8, 2016, inspectors noted that the EDG fuel oil tank vent lines were not protected from tornado-borne missiles. The inspectors questioned the licensee on the whether these vents needed to be tornado protected, and if so, could they withstand the design basis tornado event. Planned Closure Action(s): The inspectors plan to review the licensee's evaluation in engineering change (EC) document 96822 and to determine if the potential for adverse impact to the safety-related EDG fuel oil tank vent lines due to a design basis tornado event is a performance deficiency. Licensee Action(s): The licensee took placed concrete blocks around the vent lines. Licensee CAP Reference(s): NCR 686531 NRC Tracking Number: URI 05000###/I2Q2016-02	

(2) Unit 2 residual heat removal torus suction valve F020A tripped on thermal overloads

Operability Determinations and Functionality Assessments, IP 71111.15

Two Operability Determinations and Functionality Assessments Samples. Inspectors evaluated the following operability determinations and functionality assessments:

(1) High stator temperatures on the 2A conventional service water pump on April 28, 2016
(2) EDG 2 starting air receiver A air leak on April 19, 2016

Evaluations of Changes, Tests and Experiments and Permanent Plant Modifications, IP 71111.17T

Triennial Evaluations of Changes, Tests and Experiments and Permanent Plant Modifications Inspection Samples. From May 16, 2016 to May 20, 2016, inspectors evaluated the following:

10 CFR 50.59 Evaluations:
(1) *List Evaluations Sampled…*

10 CFR 50.59 Screening/Applicability Determinations:
(1) *List Screening/Applicability Sampled...*

Permanent Plant Modifications.

(1) Engineering Change (EC) 383736 “SBLC Test Seismic Fix”
(2) EC 353398 “Design and Install AB-TB HELB Barrier”

RADIATION SAFETY

Radiological Hazard Assessment and Exposure Controls, IP 71124.01,

Risk-Significant High Radiation Area and Very High Radiation Area Controls Sample. Inspectors evaluated risk-significant high radiation area and very high radiation area controls in accordance with IP Section 02.06.

Green (Occupational Radiation Safety)	Failure to Post High Radiation Area Leads to Unplanned Exposure

Description: On May 11, 2016, the Unit 2 High Pressure Coolant Injection (HPCI) turbine was being tested for control system tuning following repair of the governor and maintenance on the steam supply valve. Since dose rates increase when reactor steam is admitted into the HPCI turbine, a pre-job meeting was held between Operations, Maintenance, and Health Physics (HP) personnel to coordinate the evolution. The plan was to have an auxiliary operator and an HP technician perform simultaneous walkdowns of the area in order to ensure it was clear of personnel and that the proper radiological postings were in place. Contrary to the plan, the auxiliary operator cleared the area without informing HP and therefore without HP accompaniment. The operator then communicated to the control room that the area was clear of all personnel and the pump was started. This caused dose rates in the pump room to increase substantially.

An individual was touring the residual heat removal and HPCI areas after receiving a brief from the HP desk. The person was not informed that the HPCI pump was going to be started or that the area might be a high radiation area (HRA). Since the HPCI pump room was still only posted as a Radiation Area, the individual entered the area without being aware of the changing radiological conditions and received a dose rate alarm of 134 mrem per hour (versus an alarm set point of 50 mrem per hour). The individual immediately left the area as required by licensee procedures.

Corrective Actions Taken and Planned: In response, the licensee posted the area as a HRA, shut down the HPCI turbine, and initiated a human performance review board. Subsequent to the event, the licensee performed surveys while the HPCI pump was running and determined the highest dose rate in the room was 1100 mrem per hour at 30 centimeters from the source.

Licensee CAP Reference(s): PERs 845630

Performance Assessment:

Performance Deficiency: Failure to post HRA dose rates greater than 100 mrem per hour.

More than Minor Screening: The performance deficiency was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process (exposure control) and adversely affected the cornerstone objective to

ensure the adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Failure to inform workers of radiological conditions through the use of postings could lead to unintended exposures.

Significance: Using IMC 0609, Appendix C, inspectors determined the finding was of very low safety significance (Green) because the finding: 1) was not an as low as is reasonably achievable finding, 2) there was no overexposure, 3) there was no substantial potential for an overexposure, and 4) the ability to assess dose was not compromised.

Identification: Self-Revealed. Inspectors determined the worker discovered the failure to post the HRA through an electronic dosimeter alarm and the problem was not identified through an aggressive licensee identification process.

Cross-Cutting Aspect(s): Inspectors determined the finding had a cross-cutting aspect in the area of human performance associated with the teamwork attribute because individuals and work groups failed to communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained by posting the HPCI room as a high radiation area. [H.4]

Enforcement:

Violation: TS 5.7.1 requires, in part, that each HRA in which the intensity is 1000 mrem per hour or less be barricaded and conspicuously posted as a HRA.

Contrary to the above, the licensee failed to post the Unit 2 HPCI pump room as a HRA during a pump run in which dose rates increased to 1100 mrem per hour at 30 cm.

Occurrence: May 11, 2016

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

NRC Tracking Number: NCV 05000###/I2Q2016-01

OTHER ACTIVITIES – BASELINE

Performance Indicator Verification, IP 71151

Three Performance Indicator Verification Samples. Inspectors verified licensee performance indicators submittals listed below for the period from January 1, 2016 through March 31, 2016.

(1) Unplanned Scrams per 7000 Critical Hours
(2) Reactor Coolant System (RCS) activity
(3) RCS leakage

Problem Identification and Resolution, IP 71152:

Two Annual Follow-up of Selected Issues Samples. Inspectors reviewed the licensee's corrective actions associated with the following issues in accordance with IP Section 02.03:

(1) National Fire Protection standard NFPA 805 change to procedure NPG-SPP-###, "Control of Transient Combustibles"

Observations: None

(2) Excessive as-found local leak rates on the main steam isolation valves

Observations: None

Follow-up of Events and Notices of Enforcement Discretion, IP 71153

Two Licensee Event Report - Event Notification Retraction Samples. Inspector evaluated the following licensee report(s)/notification retraction(s) and performance in accordance with IP Sections 02.02 and 02.03:

(1) Licensee Event Report (LER) 05000###/2016-005-00, Manual Reactor Trip due to Loss of Instrument Air (https://lersearch.inl.gov/LERSearchCriteria.aspx)

Licensee Identified Non-Cited Violation (1)
This violation of very low safety significant was identified by the licensee and has been entered into the licensee corrective action program.
Disposition: 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, states in part that activities affecting quality shall be prescribed by documented procedures and shall be accomplished in accordance with these procedures. Contrary to the above, safety relief valve (SRV) pilot valve conical seating surface finish requirements were not incorporated into Licensee Procedure OCM-VSR501, Main Steam Relief Valves Target Rock Model 7517 Air Operators and Pilot Assembly, Disassembly, Inspection, and Reassembly. This resulted in one of the eleven SRVs being out of tolerance. The licensee took corrective action to replace all of the pilot valves with valves that had the correct surface finish. The licensee revised Procedure OCM-VSR501 to include polishing seat surface requirements. Occurrence: From May 2012 until May 2016 Significance/Severity: This violation is of very low safety significance (Green) because the finding is a deficiency affected the design or qualification of a mitigating structure, system, or component which did not result inoperability. Licensee CAP Reference: NCR 688621

(2) Licensee Event Report (LER) 05000###/2016-003-00, Lube Oil Leak Results in a

Potential Condition Prohibited by Technical Specifications and a Potential Loss of Safety Function (https://lersearch.inl.gov/LERSearchCriteria.aspx)

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

Operation of an Independent Spent Fuel Storage Installation, IP 60855.1

Inspectors evaluated the licensee's Spent Fuel Storage Installation (ISFSI) cask loadings on two occasions.

EXIT MEETINGS

Unless otherwise noted, no proprietary information was retained by the inspectors or documented in this report.

- On May 20, 2016, the inspectors presented the results from the triennial evaluations of changes, tests and experiments, and permanent plant modifications inspection to Ms. Carter, and other members of the licensee staff.

- On July 1, 2016, the inspectors presented the quarterly resident inspector inspection results to Mr. Slate, and other members of the licensee staff.

POINTS OF CONTACT

NRC Inspectors
C. Kent, Senior Resident Inspector
J. Kirk, Resident Inspector
E. Stark, Senior Operations Engineer

Licensee Personnel
A. Einstein, Design Engineering
J. Oppenheimer, Operations Manager
E. Fermi, Radiological Controls Manager

DOCUMENTS REVIEWED

Asterisk symbols (*) below indicates the condition report was a result of direct NRC inspection.

Adverse Weather Protection, IP 71111.01		
Designation	Description	Revision
0AOP-13.0	Operation during Hurricane, Flood Conditions, Tornado, or Earthquake	5
0AP-062	Seasonal Preparations	6
Problem Identification and Resolution, IP 71152		
Designation	Description	Revision

123456	Corrective Action Report – Transient Combustibles Procedure TCOP-14.0	
123457*	Corrective Action Report – Transient Combustibles	