



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713**

August 13, 2018

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy Seabrook, LLC
Mail Stop: EX/JB
700 Universe Blvd.
Juno Beach, FL 33408

SUBJECT: SEABROOK STATION, UNIT NO. 1 – INTEGRATED INSPECTION REPORT
05000443/2018002

Dear Mr. Nazar:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Seabrook Station, Unit No. 1 (Seabrook). On July 12, 2018, the NRC inspectors discussed the results of this inspection with Mr. Eric McCartney, Vice President – Northern Region and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any finding or violation of more than minor significance.

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

Sincerely,

/RA/

Fred L. Bower, III, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket No. 50-443
License No. NPF-86

Enclosure:
Inspection Report 05000443/2018002

cc w/encl: Distribution via ListServ

SUBJECT: SEABROOK STATION, UNIT NO. 1 – INTEGRATED INSPECTION REPORT
05000443/2018002 DATED AUGUST 13, 2018

DISTRIBUTION w/encl: (via e-mail)

DLew, RA (R1ORAMAIL Res)
JGiessner, DRA (R1ORAMAIL Res)
RLorson, DRP (R1DRPMAIL Res)
DPelton, DRP (R1DRPMAIL Res)
JYerokun, DRS (R1DRSMAIL Res)
BWellington, DRS (R1DRSMAIL Res)
FBower, DRP
CLally, DRP
MDraxton, DRP
SGhrayeb, DRP
PCataldo, DRP, SRI
PMeier, DRP, RI
ACass, DRP, Resident AA
JBowen, RI, OEDO
RidsNrrPMSeabrook Resource
RidsNrrDorlLpl1 Resource
ROPreports Resource

DOCUMENT NAME: G:\DRP\BRANCH3\Inspection
Reports\Seabrook\2018\18Q2\SBIR2018002_FINAL.docx
ADAMS ACCESSION NUMBER: ML18225A096

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP		
NAME	PCataldo email PM/CL	CLally	FBower		
DATE	08/13/2018	08/13/2018	08/13/2018		

OFFICIAL RECORD COPY

**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 50-443

License Number: NPF-86

Report Number: 05000443/2018002

Enterprise Identifier: I-2018-002-0061

Licensee: NextEra Energy Seabrook, LLC (NextEra)

Facility: Seabrook Station, Unit No. 1 (Seabrook)

Location: Seabrook, NH

Inspection Dates: April 1, 2018 to June 30, 2018

Inspectors: P. Cataldo, Senior Resident Inspector
P. Meier, Resident Inspector
D. Beacon, Acting Resident Inspector
J. Furia, Senior Health Physicist
M. Modes, Senior Reactor Inspector

Approved By: Fred L. Bower, III, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring NextEra's performance at Seabrook by conducting the baseline inspections described in this report in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. NRC and self-revealed findings, violations, and additional items are summarized in the table below.

List of Findings and Violations

No findings or more-than-minor violations were identified.

Additional Tracking Items

Type	Issue number	Title	Inspection Results Section	Status
URI	05000443/2017002-01	Seabrook Station Use and Application of Technical Specifications	711111.15	Closed

PLANT STATUS

Seabrook Station began the inspection period operating at 100 percent rated thermal power. There were no operational power changes of regulatory significance for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures in effect at the beginning of the inspection unless otherwise noted. Currently approved inspection procedures with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>.

Samples were declared complete when the inspection procedure requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee's performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Summer Readiness (1 Sample)

The inspectors evaluated summer readiness of offsite and alternate AC power systems.

External Flooding (1 Sample)

The inspectors evaluated readiness to cope with external flooding.

71111.04 - Equipment Alignment

Partial Walkdown (3 Samples)

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

- (1) 'A' emergency diesel generator alignment during 'B' emergency diesel generator surveillance on April 26
- (2) 'B' emergency feedwater alignment before 'A' emergency feedwater surveillance on June 13
- (3) 'B' switchgear ventilation alignment during the 'A' emergency diesel generator maintenance outage during the week of June 18

Complete Walkdown (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the containment building spray system.

71111.05AQ - Fire Protection Annual/Quarterly

Quarterly Inspection (5 Samples)

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

- (1) 'A' electrical tunnel and cable chase (ET-F-IB-A) on May 7
- (2) 'A' electrical tunnel (ET-F-1A-A) on May 7
- (3) Refueling water tank area (TF-F-1-0) on May 24
- (4) Residual heat removal vault stairwell, all levels, (RHR-F-4B-Z) on June 20
- (5) Residual heat removal vault, all levels, (RHR-F-1B-Z, RHR-F-2B-Z, RHR-F-3B-Z, RHR-F-1D-Z) on June 20

Annual Inspection (1 Sample)

The inspectors evaluated fire brigade performance during a fire drill conducted in accordance with the Fire Protection Program on April 10.

71111.07T - Heat Sink Performance (4 Samples)

The inspectors evaluated NextEra's monitoring and maintenance for the following heat sinks and heat exchangers:

- (1) Cooling water intake portion of the service water ultimate heat sink
- (2) 'A' emergency diesel generator cooling water heat exchanger
- (3) 'A' and 'B' centrifugal charging pump coolers
- (4) 'A' and 'B' residual heat removal pump oil coolers

71111.11 - Licensed Operator Regualification Program and Licensed Operator Performance

Operator Regualification (1 Sample)

The inspectors observed and evaluated activities associated with licensed operator regualification training in the plant-reference simulator on May 14. These activities involved simulated failures and events, including a temperature instrument failure, a charging system leak, a loss of offsite power, and subsequent failures of a key pressurizer valve and an emergency feedwater pump during recovery.

Operator Performance (1 Sample)

The inspectors observed and evaluated the following performance activities in the main control room:

- (1) A dilution to maintain reactor power; coordination activities between operations and instrumentation and controls (I&C) maintenance for power range NI rescaling and calibration; and preparations and clearance activities for the boric acid blending station selector switch replacement on April 18.
- (2) I&C calibration of a temperature channel, and coordination with operations personnel on May 16.

- (3) Risk discussion associated with the single point vulnerability from the power supply issue on the digital control system, as well as the main plant computer system unidentified leak-rate monitor unavailability; and control room personnel response to power supply failure associated with reactor protection in cabinet CP-2 on June 4.
- (4) Coordination of pre-start checks and performance of prerequisites contained in the monthly emergency diesel generator surveillance procedure for the post-maintenance operability run of the 'B' emergency diesel generator following a weeklong maintenance outage.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness (2 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Spent fuel pool and associated cooling system
- (2) Maintenance activities associated with inoperable shutdown bank control rod H-4

Quality Control (1 Sample)

The inspectors evaluated maintenance and quality control activities associated with the following equipment performance issues:

- (1) Refurbishment of spare Unit 2 emergency diesel generator cylinder heads for use on Unit 1 emergency diesel generator

71111.13 - Maintenance Risk Assessments and Emergent Work Control (5 Samples)

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

- (1) Yellow risk during 'A' solid state protection system and switchyard activities on April 12
- (2) Yellow risk associated with switchyard work and other maintenance activities on April 17
- (3) 'A' circulating water pump replacement the week of April 30
- (4) 'B' and 'C' service water pump motor replacements on May 13-15
- (5) Guarded and protected equipment lineup and risk during 'B' emergency diesel generator critical maintenance the week of June 4

71111.15 - Operability Determinations and Functionality Assessments (6 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) 'A' power operated relief valve block valve stroke timing issue (AR2254785) on March 19
- (2) Unexpected start of electric fire pump (AR2261947) on April 30
- (3) Nuclear instrumentation NI-46 comparator (for channel deviation) relay chatter (AR2262294) on May 1
- (4) Water intrusion into the guard house (AR226275) on May 4
- (5) 'A' residual heat removal vault A/C chiller not working (AR2048023) on May 9

- (6) 'B' emergency diesel generator service water heat exchanger degradation (AR2267214) on June 5

71111.18 - Plant Modifications (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Fukushima flood mitigation modifications to fire doors and barriers in May 2018
- (2) Replacement of charging system flow transmitter (FT-121) on June 6

71111.19 - Post Maintenance Testing (6 Samples)

The inspectors evaluated post maintenance testing for the following maintenance/repair activities:

- (1) Blending make-up station switch replacement (WO40592557) on April 18
- (2) Repair of steam dump pilot valve 1-PY-3018 ground (WO40569208) on April 26-27
- (3) 'A' circulating water pump replacement (WO40399802) the week of April 30
- (4) 'B' emergency core cooling system containment building spray valve CBS-V-5 limit switch replacement (WO40597134) on May 2
- (5) 'B' service water pump motor replacement (WO40496790) on May 13-15
- (6) 'B' emergency diesel generator maintenance on June 4

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (4 Samples)

- (1) 'A' 4160 kV AC emergency bus loss of voltage surveillance on April 11
- (2) 'A' control building air handling emergency filter surveillance on April 16-17
- (3) Shutdown margin verification due to inoperable shutdown rod H-4 on April 17
- (4) 'B' emergency diesel generator monthly surveillance run on April 26

In-service (1 Sample)

- (1) 'B' charging pump and valve surveillance on April 25

71114.06 - Drill Evaluation

The inspectors evaluated a licensed operator requalification examination conducted in the plant-reference simulator on May 14, as previously described under 71111.11Q. This evaluation included conditions and reporting requirements that resulted in simulated emergency classification and notifications in accordance with prescribed procedures and the NextEra Seabrook Emergency Plan.

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (1 Sample)

The inspectors conducted independent radiation measurements during walkdowns of the facility and reviewed the radiological survey program, air sampling and analysis, continuous air monitor use, recent plant radiation surveys for radiological work activities, and any changes to plant operations since the last inspection to verify survey adequacy of any new radiological hazards for onsite workers or members of the public.

Contamination and Radioactive Material Control (1 Sample)

The inspectors observed the monitoring of potentially contaminated material leaving the radiological controlled area and inspected the methods and radiation monitoring instrumentation used for control, survey, and release of that material.

71124.02 - Occupational As Low As Reasonably Achievable Planning and Controls Verification of Dose Estimates and Exposure Tracking Systems (1 Sample)

The inspectors reviewed the current annual collective dose estimate, basis methodology, and measures to track, trend, and reduce occupational doses for ongoing work activities. The inspectors reviewed post-job as low as reasonably achievable evaluations of excessive exposure.

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Engineering Controls (1 Sample)

The inspectors reviewed operability and use of both permanent and temporary ventilation systems, and the adequacy of airborne radioactivity radiation monitoring in the plant based on location, sensitivity, and alarm set-points.

Use of Respiratory Protection Devices (1 Sample)

The inspectors reviewed the adequacy of the use of respiratory protection devices in the plant to include as low as reasonably achievable evaluations, respiratory protection device certification, respiratory equipment storage, air quality testing records, and individual qualification records.

Self-Contained Breathing Apparatus for Emergency Use (1 Sample)

The inspectors reviewed the following: the status and surveillance records for self-contained breathing apparatus staged in-plant for use during emergencies, procedures, maintenance and test records, the refilling and transporting of air bottles, mask size availability, and the qualifications of personnel performing service and repair of this equipment.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification (2 Samples)

The inspectors verified the data collection and reporting for the performance indicators listed below, for the period April 1, 2017 through March 31, 2018.

- (1) Reactor coolant system specific activity
- (2) Reactor coolant system leak rate

71152 - Problem Identification and Resolution

Semiannual Trend Review (1 Sample)

The inspectors reviewed the licensee's corrective action program for trends that might be indicative of a more significant safety issue.

Annual Follow-up of Selected Issues (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) Fire protection system issues

INSPECTION RESULTS

Unresolved Item (Closed)	Seabrook Station Use and Application of Technical Specifications URI 05000443/2017002-01	71111.15 Operability Determinations
<p>Description: Following the issuance of the subject unresolved item, the resident inspectors coordinated with the Agency's office of Nuclear Reactor Regulation to determine the correct application of NextEra Seabrook's Technical Specifications (TS). In particular, using NRR office instruction COM-106, a task interface agreement (ML18093B444) was initiated to evaluate the Seabrook TS related to the impact of an inoperable cooling water tower on its supported systems. This task interface agreement was intended to be used as the primary information source to inform the assessment and subsequent closure of the unresolved item.</p> <p>The unresolved item identified the following specific examples of concern:</p> <p>1) On June 9 through June 10, 2015 (approximately 24 hours), and on October 13, 2016 (approximately 18 hours), both trains of cooling tower service water were inoperable for cooling water tower basin cleaning and inspection while in Mode 1. For this support system, NextEra entered the TS Action 3.7.4.c that provides an allowed outage time of 72 hours to restore at least one train to OPERABLE status or be in hot shutdown Mode 4 within 6 hours and cold shutdown Mode 5 within the following 30 hours (108 total hours). Upon inoperability of this support system (ultimate heat sink), NextEra did not declare the supported systems (primary component cooling water and the emergency diesel generators) inoperable and enter the associated TS Actions. If determined to be applicable, TS 3.7.3 and TS 3.8.1 would have required being in Mode 3 within 7 and 8 hours, and Mode 5 within 37 and 38 hours total, respectively.</p>		

2) On April 19, 2017, with the 'B' emergency diesel generator already inoperable, the 'A' cooling water tower loop was removed from service to replace portions of its cooling water tower pump discharge piping while the plant was in Mode 6 (refueling) with less than 23 feet of water above the reactor flange. Limiting Condition for Operability 3.7.4 (SW / UHS) only applies in Modes 1, 2, 3, and 4. Before the transition to Mode 6, the 'B' emergency diesel generator had been rendered inoperable for planned maintenance and testing while the plant was defueled and with no applicable operational mode. In Modes 5 and 6, Limiting Condition for Operability 3.8.1.2 requires one OPERABLE emergency diesel generator and TS 3.0.4 requirements were met for entering Mode 6, in part, because of the operable 'A' emergency diesel generator. While in Mode 6, both trains of ocean SW were operable to supply cooling water. At the time, the inspectors interpreted that Seabrook's licensing basis required each emergency diesel generator to be supported by its train of seismically qualified cooling water. If it is assumed that a seismically qualified source of cooling water was required on April 19, when the 'A' cooling water tower loop was removed from service, its supported system, the 'A' emergency diesel generator may have been rendered inoperable for a period of approximately 10 hours at the same time as the 'B' emergency diesel generator was inoperable for maintenance. Additionally, the inspectors identified a second potential operability concern associated with the residual heat removal system. Specifically, in Mode 6, Limiting Condition for Operability 3.9.8.2 requires two OPERABLE independent residual heat removal loops while the water level is less than 23 feet above the top of the reactor vessel flange. With less than the required residual heat removal loops OPERABLE, Action 3.9.8.2 requires immediate initiation of corrective action to return the required loops to OPERABLE status, or to establish greater than or equal to 23 feet of water above the reactor vessel flange, as soon as possible. This condition may have existed because the 'A' cooling water tower loop was inoperable, which could be interpreted to have resulted in the 'A' residual heat removal loop being inoperable for approximately 65 hours while the plant was in Mode 6 with less than 23 feet of water above the reactor flange.

To resolve this interpretation of TS rules of usage and the literal definition of operability and its impact on support and supported systems, Region 1 requested assistance from the headquarters program office through the submittal of task interface agreement 2017-001, dated July 20, 2017. This process was used to answer specific questions germane to the underlying issues raised in the unresolved item, and to effectively leverage applicable expertise in the areas of reactor systems and TS, while maintaining consistency with applicable rules, regulations, and the licensing history of the plant.

This task interface agreement was used to verify the correct implementation of the Seabrook Station, Unit No. 1 TS for supported systems, when one or more of its support systems (e.g. cooling water) is not operable per the definition in the TS. This issue was identified during a routine baseline inspection and was characterized as an unresolved item in NRC Integrated Inspection Report 05000443/2017002.

The task interface agreement response (ML18093B444) addressed two specific questions:

- (1) Does TS license amendment No. 32 from October 1994 (ML011800279), provide latitude for NextEra Seabrook to remove the entire cooling tower portion of the ultimate heat sink for 72 hours, and,
- (2) If TS license amendment No. 32 allows the flexibility to remove both loops of cooling tower service water for 72 hours, is the current TS language consistent with this flexibility?

The remaining two issues noted in the unresolved item are closely linked to the resolution of these two questions and as such are indirectly answered by the Task Interface Agreement.

As indicated previously, the Task Interface Agreement was used to answer the underlying licensing basis compliance issues associated with two, specific examples of concern documented in unresolved item 2017-002-01. Upon review of the formally-issued Task Interface Agreement response, the two questions were resolved as follows:

1) Seabrook License Amendment No. 32 on the service water system/UHS operability requirements does give NextEra the latitude to remove the entire cooling tower from service for 72 hours without evaluation of the operability of the supported systems. The evaluation prepared for Amendment No. 32 and accepted by the NRC staff demonstrated that the service water cooling tower is not important to overall plant safety during the 72 hour allowed outage time permitted to restore the cooling tower to OPERABLE status, and, thus, it is not needed to support key safety-related systems during that period. The conclusion that the service water cooling tower is not needed for operability of supported equipment is reasonable because the service water pump house and associated service water loops would be operable for cooling of supported equipment and the probability of occurrence of a design basis event for which the pump house is not qualified (i.e., a design-basis seismic event) would be extremely low during the 72 hour allowed outage time window. This logic applies to other support systems where the overall plant safety has been evaluated through a license amendment review and found acceptable by the NRC staff for the duration of the allowed outage time (e.g., the structure, system or components supported by the emergency diesel generators when out of service for the completion time evaluated for Amendment No. 97).

2) The current TS language is consistent with this flexibility because the definition of operability included in the TS requires functionality of only those support systems necessary for the structure, system or components to perform its safety function as specified in the design and licensing basis of the facility. The evaluations and analyses supporting the design and licensing bases establish the conditions when a support system is necessary for operability of the supported structure, system or component. The license amendment request supporting Amendment No. 32 proposed specific allowed outage times for inoperable cooling water system structure, system or components for preventive and corrective maintenance to improve system reliability. The supporting analyses provided by the licensee for this amendment request evaluated the effect of the out-of-service cooling water system structure, system or components, including the cooling tower and the cooling water loops circulating through the tower, on the safety of the facility and showed that the support of the service water cooling tower was not necessary during the limited maintenance window. Review of the design and licensing basis of plant safety evaluations is typically required to understand the conditions where support systems are necessary for the supported system to complete its specified safety function. The NRC staff approved the proposed TS changes as stated in the staff's safety evaluation. Therefore, the current TS language is consistent with the flexibility provided by Amendment No. 32.

The evaluation conducted under the task interface agreement does, however, raise two additional issues, involving immediate implications of this determination and applicable generic issues:

1) Immediate Implications: Pursuant to the requirements of 10 CFR 50.71(e), the licensee should evaluate whether the safety analysis report has been appropriately updated to reflect the effects of Amendment No. 32 to the Seabrook Operating License (ML18151A472).

2) Generic Implications: The issue addressed in this Task Interface Agreement response is specific to the Seabrook licensing basis and is not directly applicable to other facilities or licensees due to the unique facility design.

Corrective Actions: NextEra Seabrook (1) entered the underlying issue into the corrective action program; (2) implemented standing operating order 17-002. (This order provided interim guidance to control room licensed operators for the application of TS actions to address support and supported systems and applicable actions, as warranted.); (3) submitted a license amendment request (ML18151A472), on May 29, 2018 to the Agency, to add a TS Section 3.0.6 limiting condition for operation that addresses such situations, to provide clarity and direction and formally integrate the standing operating order into Seabrook programs, processes and procedures, including a safety function determination program; and, (4) discussed this upcoming license amendment request during a public teleconference (ML18099A308 and ML18135A246) with the NRC on April 24, 2018.

Corrective Action Reference(s): AR 2183029, AR 2190552, and AR 2239758

Closure Basis: Because the Task Interface Agreement answered the underlying TS compliance issues raised in the original, specific examples of concern in the unresolved item, there were no violations of regulatory requirements identified; therefore, this unresolved item is closed.

NRC Tracking Number: URI 05000443/2017002-01 Closed

Observations	71152 Annual Follow-up of Selected Issues
<p>The inspectors selected fire protection systems for follow-up based on recurring issues with fire detectors and the age related degradation of the fire pumps. The issues identified with fire detectors are generally related to the receipt of nuisance alarms in the main control room. The concerns with the fire pumps are age-related degradation and long term loss of pump capacity. Based on the most recent tests, the fire pumps are meeting the required capacities but with some loss of original design margin. The inspectors reviewed condition reports, long term action plans, operator logs, and procedures, interviewed responsible engineers for the fire protection system and operators, and attended daily plant status meetings and troubleshooting team meetings.</p> <p>In order to address the fire detectors, Seabrook used an established fleet procedure to implement a formal failure investigation process and execute a special focus troubleshooting team. The ongoing goal of the team is to identify and prioritize the specific issues relating to the fire detectors and provide the appropriate corrective action to fix the underlying problems.</p> <p>To address the fire pump degradation, the planning and implementation is being coordinated via the fleet long term action management program using established fleet procedures. Based on the most recent pump performance, the station is scheduled to replace the pump before its performance degrades to an unacceptable level.</p> <p>For these two fire protection issues, Seabrook currently is meeting their license conditions with respect to fire protection and there are no immediate safety concerns. Additionally, Seabrook is implementing or has scheduled appropriate corrective actions in accordance with their corrective action program commensurate with the significance of the identified issues.</p>	

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On June 7, 2018, the inspectors presented the Heat Sink Performance inspection results to M. Collins, Engineering Director, and other members of the licensee staff.
- On June 15, 2018, the inspectors presented the radiation safety inspection results to Ms. T. Smith, Radiation Protection Manager, and other members of the licensee staff. The inspectors confirmed that proprietary information was controlled to protect from public disclosure.
- On July 12, 2018, the inspectors presented the quarterly resident inspector inspection results to Mr. E. McCartney, Vice President – Northern Region, and other members of the licensee staff.

THIRD PARTY REVIEWS

Inspectors reviewed the Institute of Nuclear Power Operations report, from their assessment in October 2017, which was exited on December 18, 2017, and issued during the first quarter of 2018.

DOCUMENTS REVIEWED**71111.07**Procedures

OX1416.14, "Cooling Tower Portable Pump & Portable Diesel Driven Pump 3-Year Hydrostatic Hose Testing", Revision 5
 OX1416.06, "Service Water Discharge Valves Quarterly Test and 18 Month Position Verification", Revision 12
 OX1416.10, "Service Water Quarterly Valve Test", Revision 8
 OS1416.16, "Service Water Quarterly Valve Test", Revision 00
 ES1850.017, "SW Heat Exchanger Program", Revision 3
 OS1016.05, "Service Water Cooling Tower Operation", Revision 33
 OX1456.01, "Charging Pump A & B Quarterly Flow and Valve Stroke Test and 18 Month Remote Position Identification and Verification", Revision 24

Work Orders

40416271 01, Service Water Cooling Tower Pump 'B' Comprehensive Pump Test
 40427773 01, Train 'B' Service Water Testing
 40427774 01, Train 'A' Service Water Testing
 40456018 01, Service Water Cooling Tower Pump 'A' Comprehensive Pump Test
 40468349 01, CT Portable Pump & Portable DDP 3 YR Hose Inspection Surv.
 40476516 01, Valve Position Verification Test
 40487557 01, Service Water 18 Month Position Indication Test – Train B
 40489904 01, Valve Position Verification Test
 40495529 01, Service Water System 18 Month Position Indication
 40525321 01, Thermal Performance Monitoring of DG-E-42-A
 40312333 01, SW-C&-1 Cooling Tower Basin Cleaning & Inspection
 40427770 01, Service Water 'B' Train Strainer Cleaning and Inspection
 40427775 01, SW Pumphouse Forebay Cleaning and Service Water Pumps Insp,
 40443118 02, SW Pipe Replace, PAB EL.53 & EL.25 PCCW Discharge
 40448065 03, OR18 SW
 40537768 01, Charging Pump 'A' Flow and Valve Stroke Test
 40591853 01, Charging Pump 'A' Flow and Valve Stroke Test
 40528630 01, Charging Pump 'B' Flow and Valve Stroke Test
 40547898 01, Charging Pump 'B' Flow and Valve Stroke Test
 40525644 01, RHR Pump 8A Quarterly Flow and Valve Stroke Test
 40545572 01, RHR Pump 8A Quarterly Flow and Valve Stroke Test
 40517564 01, RHR Pump 8B Quarterly Flow and Valve Stroke Test
 40534933 01, RHR Pump 8A Quarterly Flow and Valve Stroke Test

711152Condition Reports

2264125 2266538 2268967

Miscellaneous

LTAM SEA-12-0029