



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

July 2, 2019

Mr. Bryan C. Hanson
Senior VP, Exelon Generation Company, LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: CLINTON POWER STATION, UNIT 1—BIENNIAL PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000461/2019010

Dear Mr. Hanson:

On May 24, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution inspection at your Clinton Power Station, Unit 1 and discussed the results of this inspection with Mr. T. Stoner and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's corrective action program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for corrective action programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

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 at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 1
Division of Reactor Projects

Docket No.: 05000461
License No.: NPF-62

Enclosure:
Inspection Report 05000461/2019010

cc: Distribution via LISTSERV®

Letter to Bryan Hanson from Kenneth Riemer dated July 2, 2019

SUBJECT: CLINTON POWER STATION, UNIT 1—BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000461/2019010

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000461

License Number: NPF-62

Report Number: 05000461/2019010

Enterprise Identifier: I-2019-010-0044

Licensee: Exelon Generation Company, LLC

Facility: Clinton Power Station, Unit 1

Location: Clinton, IL

Inspection Dates: May 06, 2019 to May 24, 2019

Inspectors: J. Bozga, Senior Reactor Inspector
J. Neurauter, Senior Reactor Inspector
C. Phillips, Project Engineer
D. Sargis, Resident Inspector

Approved By: Kenneth Riemer, Chief
Branch 1
Division of Reactor Projects

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a biennial problem identification and resolution inspection at Clinton Power Station, Unit 1 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.

List of Findings and Violations

No findings were identified.

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000461/2019010-01	Fuses Subject to Part 21 Potentially Installed in Safety-Related Circuits	71152B	Open

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs 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 IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

OTHER ACTIVITIES – BASELINE

71152B - Problem Identification and Resolution

Biennial Team Inspection (IP Section 02.04) (1 Sample)

The inspectors performed a biennial assessment of the licensee's corrective action program, use of operating experience, self-assessments and audits, and safety conscious work environment.

- **Corrective Action Program Effectiveness:** The inspectors assessed the corrective action program's effectiveness in identifying, prioritizing, evaluating, and correcting problems.
- **Operating Experience, Self-Assessments and Audits:** The inspectors assessed the effectiveness of the station's processes for use of operating experience, audits and self-assessments.
- **Safety Conscious Work Environment:** The inspectors assessed the effectiveness of the station's programs to establish and maintain a safety-conscious work environment.

INSPECTION RESULTS

Assessment	71152B
Corrective Action Program Effectiveness: Based on the samples reviewed, the team determined that the licensees' performance in each of these areas adequately supported nuclear safety.	
Effectiveness of Problem Identification: Overall, the station's effectiveness at identifying issues at a low threshold and properly entering them into the Corrective Action Program (CAP) as required by station procedures was inconsistent. There were several items that were not identified or were not entered into the CAP when identified. For example, non-cited violation (NCV) 2018050-02 described how between May 11 and May 17, 2018, equipment operators repeatedly failed to identify that the isolation valves from the Division 2 emergency diesel generator (EDG) air start receivers to the air start motors were locked closed and failed to identify that this made the Division 2 EDG inoperable.	

In addition, NCV 2018004-02 described how the station failed to recognize the conditions present for steam voiding in the B residual heat removal (RHR) shutdown cooling return line. After the inspectors brought this to the licensee's attention, the licensee wrote Action Request (AR) 4166749, NRC Question on Potential Voiding of Piping Near 1E12F053B, in response to the inspectors' questions. The station evaluated the condition in EC 625392, Evaluation of Potential Voiding of RHR [residual heat removal] 'B' Shutdown Cooling Injection Line, and determined that a void would be present if the body-to-bonnet leak worsened or if the system depressurized as it would during shutdown and cooldown.

Also, NCV 2019011-01 described how station procedures Clinton Power Station (CPS) 4402.01 and CPS 4407.01 did not ensure the high pressure core spray system and the suppression pool would remain available for decay heat removal for the duration of a station blackout event. This was identified by an NRC engineering team and was communicated to the licensee who then had to be prompted by the NRC team on more than one occasion before it was finally entered into the CAP.

Finally, AR 4172856, NRC Observation, dated September 13, 2018, documented an NRC observation that a ladder was tied off to safety-related service water piping that was under 4 inches in diameter with no evaluation. This was not allowed without an evaluation per CPS 1019.05, Appendix C. The inspectors identified this as a concern and it took additional questions and prompting before the licensee identified this as a problem that needed to be addressed through CAP. This issue was not documented in a previous NRC inspection report because it was considered a minor performance deficiency when a further evaluation determined it was acceptable to tie off the ladder to the pipe.

Effectiveness of Prioritization and Evaluation of Issues: In-depth reviews of a risk-informed sampling of ARs, work orders (WOs), and cause evaluations were completed, including a 5-year time period for the Division 1 EDG. The team determined that the issues were generally being appropriately prioritized and evaluated for resolution. There were, however, examples of where the NRC identified flaws in the licensee's methods of evaluation. On September 13, 2018, the licensee performed a water hammer evaluation to determine whether voiding in the RHR shutdown cooling injection line would impact operability. The evaluation was documented in Engineering Change (EC) 625522, Evaluation of Water Hammer Forces From Potential Voiding in RHR Shutdown Cooling Injection Line. Based on the evaluation the licensee concluded the resulting water hammer event would be 10 pound-force (lbf), which was within the capability of the piping and support structures. Therefore, the licensee concluded there was no impact to operability, and operations removed the item from the potential limiting condition for operation list. The inspectors reviewed the calculation and identified multiple deficiencies that significantly impacted the conclusion reached by the licensee. Subsequently the licensee performed a more detailed evaluation that concluded the resulting water hammer event would be approximately 4600 lbf. Though the calculated margin from the initial evaluation was significantly reduced, the conclusion of the second evaluation was still within the capability of the system. The inspectors reviewed the updated calculation and did not identify any additional deficiencies. This performance deficiency was also described in NCV 2018004-02.

The inspectors reviewed the licensee's evaluation of low pipe wall thickness readings on the "A" minimum flow line of the RHR system documented in AR 04133436, Low Thickness Readings Discovered On "A" RHR Minimum Flow Line, dated May 2, 2018. Specifically, the licensee performed EC 624133, Evaluate RHR "A" Minimum Flow Line Wall Thinning, Revision 1, to demonstrate operability of this piping and concluded that the piping met the design basis and American Society of Mechanical Engineers (ASME) code requirements. However, the

inspectors identified that in EC 624133 the licensee calculated an average pipe section modulus around the pipe circumference at the location of low pipe wall thickness readings used to further calculate pipe stress. In addition, the inspectors did not identify specification of an average section modulus to calculate pipe stress in the ASME code. The licensee entered the concern into the CAP as AR 04250898, PI&R Inadequate Methodology in EC 624113, dated May 22, 2019, that indicated using an average section modulus to calculate pipe stress was not a methodology recognized by the ASME code. In addition, AR 04250898 documented reasonable assurance that the "A" minimum flow line of RHR system was operable by using pipe stress acceptance criteria in Appendix F of Section III of the ASME code in comparison to pipe stress conservatively factored to account for wall thinning. Section C.11 of NRC Inspection Manual Chapter 0326, Operability Determinations & Functionality Assessments for Conditions Adverse to Quality or Safety, issued November 20, 2017, documents the licensee may use criteria in Appendix F for piping and piping support operability determinations. This was considered a minor performance deficiency.

The inspectors reviewed the licensee's evaluation associated with snubber 1RT01003S failed function test documented in AR 04011410, Mechanical Snubber 1RT01003S Failed Function Test, dated May 16, 2017. Specifically, snubber 1RT01003S failed its drag test and was found locked in the hot setting position. The licensee performed EC 619714 to evaluate the effect of this additional restraint to ensure the piping system was not overstressed. The inspectors noted that EC 619714 did not consider the effect of thermal binding during system cooldown on pipe stress and support loads as the as found snubber did not return to its cold setting. The licensee entered the concern into the CAP as AR 04251430, Failed Snubber Evaluation Inadequate, dated May 23, 2019, that documented immediate corrective action that evaluated the condition and concluded no stress limit was exceeded. Since failed snubber 1RT01003S was replaced, the inspectors also reviewed the licensee's associated VT-3 visual examination reports and verified no relevant / recordable indications were identified for the restraint. This was considered a minor performance deficiency.

Effectiveness of Corrective Actions: The team concluded that the corrective actions that were implemented were neither consistently robust nor consistently completed. For example, in 2017 and early 2018 the licensee took actions to address a declining trend in human performance errors. The inspectors reviewed those corrective actions and documented the results in NRC inspection report 2018003. In May 2018 at least six separate procedure errors resulted in the Division 2 EDG remaining unavailable when it was being depended upon for plant safety. This was documented in NCV 2018050-01 which became a White finding. Predominately because of this event the inspectors found the licensee's previous corrective actions regarding human performance to be ineffective. Since that event the licensee has taken more robust corrective actions in regard to human performance. There have been fewer human performance events since the implementation of these new corrective actions.

The inspectors reviewed AR 04073056, Identified USFAR [updated final safety analysis report] Chapter 10 Discrepancies Still in USAR [updated safety analysis report], dated November 9, 2017. This AR documented that actions to prepare a change package to Chapter 10 of the UFSAR had twice been generated and twice closed out without actually being performed. The change to Chapter 10 of the UFSAR was in the review process but was not implemented as of May 9, 2019. This was considered a minor performance deficiency.

The inspectors reviewed AR 04168460, DAC [derived air concentration] Value Discrepancy Discovered in Countroom Software, dated August 30, 2018. The licensee identified that the DAC values in countroom software, used to determine if a potentially airborne work area should

be posted or not, did not match the inhalation DAC table values in accordance with Title 10 of the *Code of Federal Regulations* (CFR), Part 20, for two radio-nuclides. The licensee performed hand calculations to verify that the room was not required to have been posted as an airborne area. A follow-up action was to go and verify that the other values in the software matched 10 CFR Part 20 values. The licensee found about 35 more radio-nuclides whose software value did not match 10 CFR Part 20 but did not go and do hand calculations for previous samples to determine if they had required posting. The licensee has since performed those hand calculations with no issues identified. Questions regarding this issue resulted in finding a similar issue in AR 02620909, 10CFR20 Inhalation DAC Value For KR-85M Found Incorrect, dated February 2, 2016. An action that came from AR 02620909 was to validate the entire library for additional errors. This was marked as complete in March 2016 but was never actually accomplished. This was documented in AR 04247547 and was considered a minor performance deficiency.

The inspectors reviewed AR 4017613, Welding Cables Through Both RT [reactor water clean up] Pump Room "B" Doors, dated June 2, 2017, which documented that welding cables were running through both secondary containment doors while in mode 2 (NCV 2017003-05). The corrective actions were assignments -34 and -35 which were to "complete a read and sign for all schedulers and planners on the plant barrier impairments (PBI) procedure and it's interaction with the work process." The effectiveness was measured with action -42. The corrective actions (CA's) failed the first effectiveness review (EFR) as documented in AR 4062608, EFR for CAPE [corrective action program evaluation] 4017613, dated October 13, 2017. This AR documents that the EFR was done in the same month the corrective action was closed. Therefore, the licensee should have given it more run time, and the licensee re-performed the EFR two months after the CA was closed. Action request 4073308, Effectiveness Review Results For AR 4062608, dated November 10, 2017, documented that the second EFR determined that the CA was ineffective. This time the licensee created a new CA that evaluated the PBI process and implemented actions to resolve the need for emergent PBI requests. The EFR was completed SAT for this CA. The original actions (-34 and -35) were not robust and only addressed the work planners. The later CA's took a larger view of the PBI process and addressed the issue at the shop level and maintenance planner level.

Operating Experience (OpE) and Self-Assessments and Audits: The team concluded that the licensee was generally effective in the use of OpE in the CAP, self-assessments and audits. The team determined that when performing causal analysis and determining CAs that OpE was routinely utilized. In addition, the team sampled OpE from NRC, industry, vendors, and third party groups and determined that for the samples selected that appropriate assessments for applicability to the licensee were performed.

Safety Conscious Work Environment: The team found evidence that the licensee's safety conscious work environment (SCWE) was appropriate. The licensee's employees appeared willing to raise nuclear safety concerns through at least one of several means available. The team observed various station meetings, including those in which new CAP items were reviewed, and interviewed a representative cross-section of station personnel, both individually and small groups. Additionally, the team assessed the overall health of the Employee Concerns Program. Specifically, the team interviewed the Employee Concerns Coordinator, reviewed recent case logs and case files and considered statement received during interviews with station personnel.

Unresolved Item (Open)	Fuses Subject to Part 21 Potentially Installed in Safety-Related Circuits 05000461/2019010-01	71152B
<p><u>Description:</u></p> <p>On August 23, 2018, the NRC received a 10 CFR Part 21 notification (Part 21) under LER 05000440/2018-002-00 (ML18236A294). The Part 21 report described a manufacturing defect of Gould Shawmut TR30R fuses. The Part 21 described that the fuse internals had separated from one another indicating that they were under tension. The tension was likely placed on the fuse during manufacturing when the ferrule ends of the fuse were crimped onto the fuse barrel. The Part 21 identified that the fuse had failed even though it was never exposed to an electrical current large enough to have failed the fuse.</p> <p>The licensee initiated an action under AR 04061497-77, 10 CFR Part 21 Applicability Determination, dated September 25, 2018, to perform a Part 21 applicability determination for Clinton Power Station because Clinton was not specifically named in the Part 21. The licensee identified that they had purchased Gould Shawmut TR30R fuses, commercially dedicated them, and installed them in the plant. The licensee believed that the Part 21 would not affect the plant because the fuses purchased were commercially dedicated, checked for ferrule tightness, and checked for resistance. The licensee failed to generate a site specific AR with actions for supply and engineering to evaluate the impact to the station. As a result, the licensee failed to evaluate fuses installed during initial construction, failed to evaluate the impact on operability, and failed to determine if the commercial grade dedication process was adequate to identify this failure mechanism. The above failures were self-imposed standards, not regulatory requirements, and were of minor significance.</p> <p>The inspectors questioned the adequacy of the licensee's determination that the Part 21 does not affect the site and identified that the licensee did not generate a site specific AR as required by their operating experience procedure. The licensee placed the issue in the corrective action program and evaluated the impact of the fuses. The licensee determined that the fuses identified in the Part 21 were from Lot number E-64. The fuses the licensee has installed in the plant were not from this lot, but the licensee did not know if the fuses originally installed in the plant were from lot E-64. The licensee identified that there were five locations in which a failure of the fuse would result in a partial loss of safety function.</p> <p>This is an unresolved item. In order to resolve this issue, the inspectors need to know whether fuses from lot E-64 were installed in safety-related circuits.</p> <p>Planned Closure Actions: The inspectors need to know if any of the fuses from lot E-64 are installed in safety-related circuits. The licensee plans to visually inspect each circuit that could contain the affected fuses. The inspectors will evaluate the results of the inspection and determine if a violation existed.</p> <p>Licensee Actions: The licensee plans to determine if the affected lot of fuses were installed in the plant. The licensee plans to visually inspect each location that this type of fuse is installed. If any fuses from the affected lot are identified, the licensee plans to replace those with fuses that were not from the affected lot.</p> <p>Corrective Action References: AR 04250520, NRC Question: P21 Fuse, dated May 5, 2019 AR 04251536, Part 21 Assessment Results for TR30R Fuses, dated May 24, 2019</p>		

EXIT MEETINGS AND DEBRIEFS

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

- On May 24, 2019, the inspectors presented the biennial problem identification and resolution inspection results to Mr. T. Stoner and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Calculations	IP-M-0513	Division I, II and III SX Pipe Wall Thinning Analysis Including RHR Piping	0W
	Corrective Action Documents	04034973	Oil Leak From 1SX01PA	07/24/2017
		AR 02385999	1DG005A Relief Valve Lifting Repeatedly	09/25/2014
		AR 02490408	Reactor SCRAM from Trip of 1AP07EJ	12/09/2017
		AR 02592592	1DG005A: Relief Valve Lifting Repeatedly	11/25/2015
		AR 02595942	NCV 2015003-03, Failure to Obtain Lic Amend on Sec Cnmt Mod	12/04/2015
		AR 02596437	Upper Bearing Oil Cooler Leak	12/06/2015
		AR 02598117	1WS01PB, WS 'B' Lower Bearing Oil Level Sightglass Full	12/09/2015
		AR 02620909	10CFR20 Inhalation DAV Value for KR-85M Found Incorrect	02/02/2016
		AR 02644384	OPEX Evaluation: IER L3-16-6, Control Rod Drive Vent Plug Leakage Concern	03/23/2016
		AR 02649780	RAT 4538 Failure: Numerous Unexpected Alarms 5010-1A, 1C, 8A	04/02/2016
		AR 02654953	1FW01PB (TDRFP "B") Vibration has Continued to Degrade	04/13/2016
		AR 02667822	Unexpected Alarms 5050-1F/2F and 1VH01CA Trip	05/10/2016
		AR 02675486	1WS01PB, WS Pump B Leaking from Upper Bearing	05/30/2016
		AR 02704548-04	NRC Information Notice 2016-11: Potential for Material Handling Events to Cause Internal Flooding	11/14/2016
		AR 02742442	CDBI: Inappropriate Calculation Method for CR Habitability	11/17/2016
		AR 03950913	WS Requires Maintenance Rule (A)(1) Evaluation	01/09/2017
		AR 03962443-97	10 CFR Part 21 Applicability Determination	10/12/2017
		AR 03978324	Lost 138KV Feed Causing ERAT Transient	02/24/2017
		AR 04006988	OPEX Evaluation: NRC IN 2017-01, Reactor Coolant System Leakage from a Control Rod Drive Threaded Connection	05/05/2017
AR 04007861	Entered 4008.01 and 4002.01 Due to FCV Runback	05/07/2017		
AR 04009845	PSU: C1R17 MSIV LLRT [local leak rate test] Tech Spec 3.6.1.3 Limit Exceeded	05/12/2017		
AR 04011410	Mechanical Snubber 1RT01003S Failed Function Test	05/16/2017		
AR 04015342	NRC Identified Two Issues Regarding Snubber Testing	05/26/2017		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		AR 04016563	Automatic Reactor Scram	05/30/2017
		AR 04017613	Welding Cables Through Both RT Pump Room 'B' Doors	06/02/2017
		AR 04022757-02	NRC Information Notice 2017-03 Anchor Darling Double Disc Gate Valve Wedge Pin and Stem-Disc Separation Failures	08/19/2017
		AR 04044082	OPEX Review: NRC IN 2017-04, High Energy Arcing Faults in Electrical Equipment Containing Aluminum Components	08/21/2017
		AR 04049063	OPEX Evaluation: IN 2-17-05, Potential Binding of Schneider Electric/Square-D Master Pact 480-VAC Circuit Breaker Anti-Pump Feature	09/05/2017
		AR 04052455	10 CFR Part 21 Update Regarding Grayboot Socket Contacts	09/15/2017
		AR 04052639	Gothic V8.1 and V8.2 Computer Code Errors Potential Part 21	08/22/2017
		AR 04054180	Follow Up on Overall Strategy for 1CC103 Leak	09/20/2017
		AR 04055133	Valve 1IA128B Failed Seat Leakage Test	09/23/2017
		AR 04056394	2017PIR 4410.00C001 Needs 50.59 Screening	09/27/2017
		AR 04061340	Part 21 For HMA Relay Potentially Applicable	10/10/2017
		AR 04061497-77	10 CFR Part 21 Applicability Determination	09/25/2018
		AR 04062608	EFR for CAPE 4017613	10/13/2017
		AR 04066250	OPEX Level 3 Review - NRC IN 2017-06, Battery and Battery Charger Short-Circuit Current Contributions to a Fault on the Direct Current Distribution System	10/24/2017
		AR 04069750	BRE [bullet resistant enclosure] Energized Power Plug	11/01/2017
		AR 04069935	MCR [main control room] Unexpected Alarm 5067-3F MS [main steam] Line Radiation High	11/02/2017
		AR 04071277	ERAT SVC [static variable compensator] Tripped Due to Substation Breaker Cycling	11/05/2017
		AR 04072627	Shephard Calibrator Interlocks not Functioning as Designed	11/08/2017
		AR 04073308	Effectiveness Review Results for AR 4062608	11/10/2017
		AR 04075431	NCV 2017007-01 Fail to Eval Defeating RCIC Interlocks/Trips	11/16/2017
		AR 04075432	NCV 2017003-05 Entered Mode 2 While Secondary Containment Inop	11/16/2017
		AR 04075433	NCV 2017003-01 Condition Based Maint Approach On MSIV [main steam isolation valve] Leakage	11/16/2017
		AR 04075433	NCV 2017003-01 Condition Based Maint Approach on MSIV Leakage	11/07/2017

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		AR 04075435	NCV 2017-003-03, Fail to Perform Engineering Evaluation for Snubber Failure	11/16/2017
		AR 04075436	NCV 2017003-04 RR Pump Runback Due to FCVs not Locked Out	11/16/2017
		AR 04075581	IP 92723 - Inadequate Extent of Condition on NCV 2016002-07	11/16/2017
		AR 04075779	RHR A & B Min Flow Piping Removed From C1R18 Scope	11/17/2017
		AR 04080756	SEC ID-Camera 37 Loss of Coverage	12/04/2017
		AR 04081583	Potential NRC SL IV Violation for Time to Boil 72.48 Screen	12/06/2017
		AR 04084004	SEC ID: EVD#2 Failed Testing	12/14/2017
		AR 04089480	Failure to Implement CAPR [corrective action to prevent recurrence] At First Available Opportunity	01/02/2018
		AR 04096509	RCIC PCIV 1E51-F064 Isolated During 9030.01 Surveillance	01/24/2018
		AR 04099250	NRC FIN 2017012-02 Fail to Prop Classify NSR Aux Transformer	01/30/2018
		AR 04102073	10 CFR Part 21 - NRC Log 2017-55 - SOR	02/08/2018
		AR 04105979	NRC NCV 2017004-02 Failure to Assess and Manage Risk	02/20/2018
		AR 04105980	NRC NCV 2017004-003, Failure to Perform an Extent of Condition	02/20/2018
		AR 04105981	NRC SL IV NCV 2017004-04, URI 72.48 Time-to-Boil Calculation Closed	02/20/2018
		AR 04107258	NRC Information Notice: IN 2018-01, ISFSI Noble Gas Releases	02/23/2018
		AR 04108860-02	NRC 2018-002 Target Rock 3-Stage SRV Model 0867F Degredation	07/13/2018
		AR 04111775-05	Information Notice (IN) 2018-04: Operating Regarding Failure of Operators to Trip the Plant when Experiencing Unstable Conditions	06/27/2018
		AR 04125651	Part 21 - Potential Failure of Reverse Power Relays	04/11/2018
		AR 04128705	1VT02A Cooling Coil has Cracked Tube	04/19/2018
		AR 04130828	NRC Question on Last Performance of 9861.09D006	04/25/2018
		AR 04131749	NRC NCV 2018001-01 Failure to Follow Procedure Isolates RCIC	04/27/2018
		AR 04133436	Low Thickness Readings Discovered on "A" RHR Minimum	05/02/2018

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Flow Line	
		AR 04134393	1VH01CA SX Pump Room "A" Area Cooler Tripped	05/04/2018
		AR 04134785	Low Thickness Readings Discovered on "B" RHR Minimum Flow Piping	05/05/2018
		AR 04137003	Rejected Weld Indication During Radiography "B" RHR Piping	05/12/2018
		AR 04137330	9861.02D017, Leakage Needs Evaluated, RCIC Steam Supply	05/14/2018
		AR 04139396	9861.09 and Data Sheets - SX Boundary Leak Test Procedure Changes	05/20/2018
		AR 04140601	Steam Leak in 6" Pipe Elbow on 1GS15B	05/23/2018
		AR 04143037	Piping Upstream of 1CC103 Still Leaking after Maintenance	05/31/2018
		AR 04151429	L3 OPEX Evaluation Results - Battery Charger Fault Contribution	06/28/2018
		AR 04156632	NRC IN 2018-07: Pump/Turbine Bearing Oil Sightglass Problems	07/18/2018
		AR 04160873	RPID: TSP 2017-67 Needs to Remain in Place Permanently	08/01/2018
		AR 04161074	RPID: Increased Dose Rates On WZ Piping	08/02/2108
		AR 04162483	NRC NCV 2018002-02, Fail to Establish Adequate Leak Test Procedure	08/07/2018
		AR 04163523	NRC IN 2018-09: Electric Arc Flash Caused by Foreign Material Damages Fire Door	08/11/2018
		AR 04164644	UT Pipe Wall Thinning at 4" Elbow of Pipe of 1SX21AB	08/15/2018
		AR 04164975	UT Indicates Pipe Wall Tinning at 24" Pipe of 1WS14A	08/16/2018
		AR 04166724	Leak Identified on 1DG155 Flanged Joint	08/23/2018
		AR 04166725	Leak Identified on 1DG04TA Threaded Joint	08/23/2018
		AR 04166730	Packing Leak on 1DG011A	08/23/2018
		AR 04166731	Two Threaded Joint Leaks Found on 1DG169	08/23/2018
		AR 04168460	DAC Value Discrepancy Discovered in Countroom Software	08/30/2018
		AR 04172921	UT Pipe Wall Thinning at 4" Elbow of Pipe 1SX21AA	09/13/2018
		AR 04173375	UT Pipe Wall Thinning on 2-1/2" Pipe 1WSB9W	09/14/2018
		AR 04177094	NRC Information Notice: IN 2018-11, Kobe Steel Quality Assurance Falsification	09/26/2018
		AR 04177203	Interruption In 138 KV Line Service to CPS ERAT [emergency reserve auxiliary transformer]	09/26/2018

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		AR 04179395	NRC NCV 2018412-01 Fail to Search All Areas of a Vehicle	10/02/2018
		AR 04180603	NRC IN 2018-03 - Failure to Meet TSs for Changing Plant Conditions	10/05/2018
		AR 04188313	Evaluate RHR A SDC Temperature Transient	10/27/2018
		AR 04188538	Reactor Scram on High IRM Flux	10/28/2018
		AR 04194966	Part 21 - Notification of Dry Type Transformer S/N 24-26458	11/14/2018
		AR 04199126	NRC NCV 2018041-02, Fail to Establish Acceptance Criteria for Component Performance Monitoring	11/30/2018
		AR 04202559	Division 2 Diesel Generator 1DG01KC Oil Cooler Leak (Oil)	12/12/2018
		AR 04203045	Improve Rounds Point for Division 3 EDG	12/14/2018
		AR 04206548	Small Oil Leak on Division 3 DG AC Circ LO Pump 1DG616PA	12/29/2018
		AR 04208699	Division 2 DG Governor Oil Leak	01/07/2019
		AR 04208701	Division 2 DG 26 Cyl AC Circ Oil Pump Leak	01/07/2019
		AR 04208708	Oil Leak from Casing of 1DG16A	01/07/2019
		AR 04208712	1DG628PA Oil Leak from Fitting	01/07/2019
		AR 04208720	Oil Leaking from Fitting on 1DG605PA	01/07/2019
		AR 04209422	Division 1 DG 12 Cyl LO Filter Leak	01/09/2019
		AR 04209427	Division 1 DG 16 Cyl Crankcase Seal Leak	01/09/2019
		AR 04211426	Oil Leaking from Division 1 DG Oil Cooler Flanges	01/16/2019
		AR 04212873	SEC ID: Contingency Weapon Left Unattended in the OCA [owner controlled area]	01/22/2019
		AR 04216769	1DG622PA Has Small Oil Leak	02/03/2019
		AR 04218343	SEC ID: Security Fencing Needs Repair	02/08/2019
		AR 04220198	NRC NCV 2018004-04 Fail Follow Proc. Resulting CRD Pump Trip	02/14/2019
		AR 04220199	NRC NCV 2018004-03, Fail to Include Acceptance Criteria for Division 3 EDG	02/14/2019
		AR 04220200	NRC NCV 2018004-02-Fail to ID a Degraded Cond. in RHR B	02/14/2019
		AR 04220201	NRC NCV 2018004-01 Fail to Prevent Instal of Non-Conf. Parts	02/14/2019
		AR 04220251	NOS ID: Combustible Material Less than 3 Feet from a SWGR	02/14/2019
		AR 04220260	NOS ID: Wrong PIDS Methodologies Used for Testing	02/14/2019
		AR 04221273	Several Throughwall Pinhole Leaks Downstream of 1SX013D	02/18/2019

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		AR 04225272	Request for Decon of the Spent Resin Pump Room	03/01/2019
		AR 04227872	UT Pipe Wall Thinning of 3" Pipe of 1SX29BB	03/08/2019
		AR 04229909	UT Indicates Pipe Wall Thinning at 8" Pipe of 1SX04AC	03/15/2019
		AR 04231145	SX Piping Mitigation Strategy Review	03/20/2019
		CAPE 04012075	Workers Enter Incorrect Elevation of the Drywell Bioshield	06/22/2017
		CAPE 04181437	October Trip of Reserve Auxiliary Transformer (RAT) Static VAR Compensator (SVC)	12/05/2018
		CAPE 4017613	Secondary Containment ITS Violation	06/28/2017
		CAPE 4096509	RCIC PCIV 1E51-F064 Isolated During 9030.01 Surveillance	02/28/2018
		CAPR 03982792-60	Modify VC Load Shedding Wiring 0AP06E (EC 625821)	12/13/2018
		CAPR 03982792-68	Modify VC Load Shedding Wiring 0AP05E (EC 625820)	02/26/2019
		ECAP 02667822	Unexpected Alarms 5050-1F/2F and 1VH01CA Trip	06/01/2016
		ECAPE 04148838	High Pressure Core Spray (HPCS) 1E22-F004 Valve Found Open	09/21/2018
		RCR 04016563	Automatic Reactor Scram	07/20/2017
		RCR 04082490	Transformer Failure Results in Trip of 4160V 1A1 Breaker 1AP07EJ and Loss of Power to 480V Unit Substation A (0AP05E) and 480V Unit Substation 1A (1AP11E)	10/04/2018
		RCR 4188538	IRM Scram	12/14/2018
	Corrective Action Documents Resulting from Inspection	AR 04247254	NRC ID: Gaps Associated with Actions Under 4073308	05/08/2019
		AR 04247547	NRC ID: Ineffective Action Closure	05/08/2019
		AR 04247831	NRC PI&R RHR Area Walkdown Issues	05/09/2019
		AR 04248044	PI&R Identified Min Wall Reading on 1SX21AB Below Allowable	05/10/2019
		AR 04248056	PI&R WO Acceptance Criteria Not Per Calc	05/10/2019
		AR 04248079	PI&R 1SX21AB-4" Replacement Not Scheduled	05/10/2019
		AR 04249310	NRC ID: Root Cause Report 401653 Process Weakness	05/15/2019
		AR 04249310	NRC ID: Root Cause Report 4016563 Process Weakness	05/15/2019
		AR 04249610	NRC ID: IR 4180203 Should be Sig Level 3D	05/16/2019
		AR 04250520	NRC Question: P21 Fuse	05/20/2019
		AR 04250898	PI&R Inadequate Methodology in EC 624113	05/22/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		AR 04251096	Tracability of Fuses Issued to Ops and IMD	05/22/2019
		AR 04251113	PI&R Identified Violation Actions Inadequate	05/22/2019
		AR 04251114	NRC ID: Min Wall Calcs Extent of Condition	05/22/2019
		AR 04251430	Failed Snubber Evaluation Inadequate	05/23/2019
		AR 04251536	Part 21 Assessment Results for TR30R Fuses	05/24/2019
	Engineering Changes	EC 350224	Evaluation of Proposed Heatup/Startup of RHR in Shutdown Cooling	Revision 1
		EC 438722	1SX01PC Pump Acceptance Criteria, Motors Amps and Coastdown Time	02/05/2019
		EC 619936	Endorsement and Application of GE Analysis for OPRM Setpoint Change	03/07/2018
		EC 621828	Replace Springs with Temporary Struts on RT Lines in the Drywell (1RT01004C and 1RT01014C)	0
		EC 625392	Evaluation Of Potential Voiding In RHR B Shutdown Cooling Injection Line	Revision 0
	Engineering Evaluations	EC 619714	Snubber (1RT01003S) Failure Evaluation of Snubber Inspection Program	0
		EC 624113	Evaluate RHR "A" Minimum Flow Line Wall Thinning	1
	Miscellaneous	AR 04005206-02	RP OE: Loss of Radiation Monitoring Equipment Due to Loss of 23kV Station Service	06/21/2017
		AR 04009125-02	#407927 OE - Equipment Misoperation - Event Final Complete Last Updated: 2017-05-05 Sequoyah	06/26/2017
		AR 04111775-05	Information Notice 2018-04: Operating Regarding Failure of Operators to Trip the Plant When Experiencing Unstable Conditions	06/27/2018
		AR 04138790	Root Cause Report for Division 2 Emergency Diesel Generator Air Receivers Found Isolated During Rounds	06/26/2018
		AR 4008122-02	Exelon Nuclear Event Report (NER) AC-17-001, Reactor Protection System B Half SCRAM (Blown Fuse Investigation)	06/21/2017
		AR 4053493-35	ICES # 431701 Indian Point Unit 3 Automatic Trip Due to A Loss of Main Generator Excitation	06/13/2019
		AR 4117076	#432283 Loss of Instrument Air Due to Dryer Valve Failure	07/16/2018
		C1R17-419	VT-3 NDE Report, Component 1RT01003S	05/11/2017
C1R17-529		VT-3 NDE Report, Component 1RT01003S	05/15/2017	

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		Event Number: 52736	Part 21 - Interim Notification of a Potential Defect on a Printed Circuit Board	06/23/2017
		LER 05000440/2018-002-00	Part 21 - Failed Fuse Leads to Loss of Safety Function	08/23/2018
		LER 05000461/2017-009-00	Trip of Emergency Reserve Auxiliary Transformer Static VAR Compensator Causes Positive Secondary Containment Pressure Following Voltage Transient on 138kV Offsite Source	01/04/2018
		LER 05000461/2018-001-00	Degraded Personnel Airlock Interlock Results in Loss of Primary Containment	05/29/2018
		LER 05000461/2018-003-01	Load Driver Card Failure Resulting in High Pressure Core Spray Inoperability	06/20/2018
		LER 05000461/2018-005-02	Unplanned Reactor Scram During Maintenance Outage Due to High Intermediate Range Monitor Flux	04/24/2019
		M-1RT01003S	Support/Hanger Drawing	F
		N/A	10 CFR Part 21 Curtiss-Wright Grayboot Socket Contacts	06/21/2017
		NSED Review 95012	Commercial Grade Dedication Summary	Revision 1
		Operability Evaluations	EC 620644	Oil Leak From Div 1 SX Motor
	Procedures	CPS 9431.26	OPRM Channel Calibrations	Revision 39c
		CPS 9861.09	Shutdown Service Water Boundary Valve Leak Testing	08/29/2018
		ER-AA-335-016	VT-3 Visual Examination of Component Supports, Attachments, and Interiors of Reactor Vessels	10
		ER-CL-300	Clinton Power Station Snubber Program	2
		LS-AA-107	UFSAR/FPR [fire protection report] Update Procedure	Revision 12
		MA-CL-0001	Fuse Program Guidance	Revision 3
		NES-MS-03.1	Piping Minimum Wall Thickness Calculation	5
		NES-MS-03.2	Evaluation of Discrepant Piping and Support Systems	7
		NO-AA-10	Quality Assurance Topical Report (QATR)	Revision 94
OP-AA-108-115	Operability Determinations	21		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PI-AA-115-1003	Processing of Level 3 OPEX Evaluations	Revision 5
		PI-AA-120	Issue Identification and Screening Process	Revision 8
		PI-AA-125	Corrective Action Program (CAP) Procedure	Revision 6
		PI-AA-125-1001	Root Cause Analysis Manual	Revision 3
		PI-AA-125-1003	Corrective Action Program Evaluation Manual	4
		PI-AA-125-1006	Investigation Techniques Manual	Revision 4
	Self-Assessments	AR 04047344	Perform Self-Assessment Operational Decision Making (ODMs) Closed Prior Year (Last 12 Months)	12/07/2017
		AR 3950645-02	Maintenance Role In Work Management	01/26/2017
		AR 4014949	Nuclear Oversight Audit Report - Engineering Design Control	08/01/2017
		AR 4030936	FIN Team Process Compliance Self-Assessment	10/12/2017
		AR 4099631	Control of Quality Parts	02/28/2019
		AR 4103467	MP Use of Work Package Quality Verification Checklist	09/12/2018
		AR 4106025	2018 Clinton Clearance and Tagging Self-Assessment	01/18/2018
		AR 4108988	Clinton Reactivity Management	08/31/2018
		AR 4114268	Nuclear Oversight Audit Report - Engineering Programs and Station Blackout	04/11/2018
		AR 4209487	Nuclear Oversight Audit Report - Materials Management and Procurement Engineering	02/06/2019
		NOSA-CPS-17-06 (AR 4014520)	Radiation Protection Audit Report	07/18/2017
		NOSA-CPS-17-08 (AR 04039870)	Clinton Operations Audit	08/07/2017
		NOSA-CPS-19-02 (AR 4209506)	Security Programs Audit Report	02/20/2019
		Work Orders	WO 01136842-02	Replace 1SX29BB-3 Piping
	WO 01136842-07		Coat Inside of Pipe 1SX29BB	04/13/2009
	WO 01230598-02		1E12D001A, Fabricate New Orifice Plate	09/17/2013
	WO 01230598-13		1RH198BA, Coat Prefabricated Piping Spools	04/16/2015
	WO 01230598-30		1E12D001A, Fabricate New Orifice Plate	04/20/2015
	WO 01865591-01		NDE Ultrasonic Examination, 1SX29BA-3" Piping Downstream of 1SX23M Division 1 Orifice	03/24/2017
	WO 01872658-19		Install New Upper Motor Oil Cooler	04/06/2016

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		WO 01898016	Model Work Order, Measure Motor Amps and Coastdown Time	0
		WO 01923407-02	Replace Overload Relays	05/03/2016
		WO 01923407-03	Operations Post Modification Test Run 1VH01CA IAW 3405.01	05/11/2016
		WO 04646520	Update OPRM Setpoints Per EC 619936	10/19/2017
		WO 04680029-89	T-MOD, Install Rigid Strut on 1RT01004C	05/01/2018
		WO 04680029-90	Remove Temporary Rigid Strut / Restore Support 1RT01004C	05/12/2018
		WO 04680029-97	T-MOD, Install Rigid Strut on 1RT01014C	05/01/2018
		WO 04680029-98	Remove Temporary Rigid Strut / Restore Support 1RT01014C	05/12/2018
		WO 04766924	Containment 828 Personnel Airlock Interlock Failure	03/30/2018
		WO 04772358	1PL12JA GGP Relay Holding Coil Potential Deficiency	05/24/2018
		WO 04798571-11	Replace High Pressure Core Spray Load Driver 1H13-P663-A16-A123	06/21/2018
		WO 04798571-16	Replace High Pressure Core Spray Driver 1H13-P663-A16-A121	06/22/2018
		WO 04838315-01	Modify VC Load Shedding Wiring, 0AP05E (EC625820)	02/22/2019
		WO 04838315-02	Post Modification Testing, DC Control Circuit Ground Verification, 0AP05E (EC 625820)	02/23/2019
		WO 04838315-03	Post Modification Testing, Test of 480V Bus A Sequencing, 0AP05E (EC 625820)	02/23/2019
		WO 04838315-06	Operations Post Modification Testing, 0AP05E (EC 625820)	02/23/2019
		WO 04846440	1WSB9A: Trend in UT Results Indicate Pipe Replacement Needed	05/19/2019
		WO 04847239-01	Modify VC Load Shedding Wiring, 0AP06E (EC 625821)	12/07/2018
		WO 04847239-02	Post Modification Testing, DC Control Circuit Ground Verification, 0AP06E (EC 625821)	12/08/2018
		WO 04847239-03	Post Modification Testing, Test of 480V Bus A Sequencing, 0AP06E (EC 625821)	12/08/2018
		WO 04847239-06	Operations Post Modification Testing, 0AP06E (EC 625821)	12/10/2018
		WO 04864828-01	0AP117E, Inspect/Clean ERAT SVC Fans and Filter	03/26/2019
		WO 04866066-01	Measure Motors Amps and Coastdown Time	03/16/2019