



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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May 15, 2020

Mr. Mark Bezilla
Site Vice President
Energy Harbor Nuclear Corp.
Davis-Besse Nuclear Power Station
5501 N. State Rte. 2, Mail Stop A-DB-3080
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – INTEGRATED INSPECTION
REPORT 05000346/2020001

Dear Mr. Bezilla:

On March 31, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Davis-Besse Nuclear Power Station. On April 20, 2020, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Billy C. Dickson, Jr., Chief
Branch 2
Division of Reactor Projects

Docket No. 05000346
License No. NPF-3

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Mark Bezilla from Billy C. Dickson, Jr., dated May 15, 2020.

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – INTEGRATED INSPECTION
REPORT 05000346/2020001

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000346

License Number: NPF-3

Report Number: 05000346/2020001

Enterprise Identifier: I-2020-001-0044

Licensee: Energy Harbor Nuclear Corp.

Facility: Davis-Besse Nuclear Power Station

Location: Oak Harbor, OH

Inspection Dates: January 01, 2020 to March 31, 2020

Inspectors: S. Bell, Health Physicist
E. Fernandez, Reactor Inspector
J. Harvey, Resident Inspector
D. Mills, Senior Resident Inspector
C. Norton, Senior Resident Inspector
J. Park, Reactor Inspector
J. Rutkowski, Project Engineer

Approved By: Billy C. Dickson, Jr., Chief
Branch 2
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Davis-Besse Nuclear Power Station, 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 or violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

The plant began the inspection period at rated thermal power. On January 16, 2020, the plant started coasting down with periodic power reductions. The licensee shut down the plant for the refueling outage on February 29, 2020. The plant remained shut down for 25 days. On March 24, 2020, the licensee started up the plant, but operators tripped the plant at very low power on March 25, 2020, due to a failed transformer fuse. The licensee restarted the plant on March 26, 2020, and the plant reached rated thermal power on March 30, 2020. The plant remained at or near full power for the rest of the inspection period.

On February 27, 2020, the licensee's parent company successfully completed its Chapter 11 restructuring process and emerged from bankruptcy as Energy Harbor Nuclear Corp. The NRC Region III inspectors used flexibility in the baseline inspection program to assess the potential impact of the financial conditions on licensee performance. Through February 27, 2020, the inspectors applied additional focus to the following areas: (1) impact on regulatory required plant staffing, (2) corrective maintenance backlog, (3) changes to the planned maintenance schedule, (4) corrective action program implementation, and (5) reduction in outage scope, including risk-significant modifications. No concerns were identified.

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/readingrm/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." From January 1 – March 19, 2020, the inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." 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.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time the resident inspectors performed periodic site visits each week and during that time conducted plant status activities as described in IMC 2515, Appendix D; and observed risk significant activities when warranted. In addition, resident and regional baseline inspections were evaluated to determine if all or portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In the cases where it was determined the objectives and requirements could not be performed remotely, management elected to postpone and reschedule the inspection to a later date.

REACTOR SAFETY

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (5 Samples)

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

- (1) Decay heat/low pressure injection (DH/LPI) train 2 while DH/LPI train 1 was out of service for planned emergency core cooling system room cooler maintenance during the week ending January 11, 2020
- (2) Emergency diesel generator (EDG) train 2 while component cooling water train 1 was out of service for planned testing during the week ending February 1, 2020
- (3) High pressure injection train 1 while DH/LPI train 2 was out of service for planned maintenance and EDG 2 was out of service for planned testing during the week ending February 22, 2020
- (4) Decay heat/low pressure injection train 1 while DH/LPI train 2 was in operation during the planned reactor drain down during the week ending March 7, 2020
- (5) Decay heat/low pressure injection train 2 while defueled and credited as an alternate means of spent fuel pool cooling during the week ending March 14, 2020

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Electrical penetration room 2, fire area DF, during the week ending February 8, 2020
- (2) East and southwest penetration areas of the annulus, fire areas A and AB, during the week ending March 21, 2020
- (3) High voltage switchgear room A, fire area S, during the week ending April 4, 2020

71111.08P - Inservice Inspection Activities (PWR)

PWR Inservice Inspection Activities Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors verified the reactor coolant system boundary, steam generator tubes, reactor vessel internals, risk-significant piping system boundaries, and containment boundary were appropriately monitored for degradation and repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities from March 2nd, 2020 to March 13th, 2020:

03.01.a - Nondestructive Examination and Welding Activities.

- Ultrasonic Examination (UT) of 2.5" Elbow to Pipe Weld for High Pressure Injection Emergency Core Cooling, Component ID HP-33C-CCB-2-35-SWE
- Liquid Penetrant Examination (PT) of the 8.25" SG 1 Upper Primary Head Nozzle Head Vent Safe-End Weld Component ID RC-SG-1-2-W253

- Inservice Inspection (ISI) Report 21-PT-030 Non-Relevant Indication (<1/16") on Upper Primary Head Nozzle Head Vent Safe-End Weld Component ID RC-SG-1-2-W253
- Work Order (WO) 200744645-01 2 1/2" HP2A Valve Replacement

03.01.b - Pressurized-Water Reactor Vessel Upper Head Penetration Examination Activities.

- UT of 69 penetrations on the Reactor Vessel Closure Head (RVCH)

03.01.c – Pressurized-Water Reactor Boric Acid Corrosion Control Activities.

- CR-2019-02550 Decay Heat and Low-Pressure Injection DH Pumps Test Line Relief DH2761
- CR-2020-00129 Emergency Sump, Borated Water Storage Tank Isolation Valve DH7A
- CR-2019-06622 Containment Spray Discharge CS26

03.01.d – Pressurized-Water Reactor Steam Generator Tube Examination Activities.

- Eddy current testing of 15604 Tubes in steam generator (SG 1B) and 15580 Tubes in SG 2A
- Secondary side visual examinations of SG 1B and SG 2A to Inspect Tie Rod Bowing and Tube Bowing

71111.11Q - Licensed Operator Regualification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the control room during the shutdown for the planned refueling outage during the week ending February 29, 2020, and the plant trip recovery during the week ending March 28, 2020

Licensed Operator Regualification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) Licensed operator regualification simulator scenario on February 11, 2020

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (1 Sample)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) Structures monitoring and aging management associated with pipe supports

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Component cooling water pump 1 pump bearing replacement, constant level oiler installation, and new pump bearing oil seal installation

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (10 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Planned replacement of integrated control system modules and delta Tcold adjustment during the week ending January 11, 2020
- (2) Emergent issue during nuclear instrument calibration resulting in unplanned power change during the week ending January 18, 2020
- (3) Planned maintenance on component cooling water train 1 during the week ending January 25, 2020
- (4) Emergent work on the seal oil vacuum pump and planned orange risk to personal safety (confined space activity) during the week ending February 8, 2020
- (5) Planned maintenance on decay heat/low pressure injection 2 pump resulting in an orange risk to nuclear generation window during the week ending February 22, 2020
- (6) Emergent conflict between high pressure injection system maintenance work and the reactor coolant system drain down contingency plan during the week ending March 7, 2020
- (7) Yellow shutdown defense-in-depth risk window for reactor coolant system reduced inventory and steam generator nozzle dam installation during the week ending March 7, 2020
- (8) Heavy lift associated with the reactor head removal and movement to head stand during the week ending March 7, 2020
- (9) Planned fuel movement and defueled activities during the week ending March 14, 2020
- (10) Yellow shutdown defense-in-depth risk window for planned reactor coolant drain following core reload during the week ending March 21, 2020

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Condition Report (CR) 2019-10096: Bolt found missing in diesel fuel oil pressure relief valve DO3672
- (2) CR 2020-01984: 1R21 Framatome - Potentially incorrect CRDM [control rod drive mechanism] o-ring lubricant supplied as equivalent
- (3) CR 2020-01840: Transverse crack in peripheral weld AFPT [auxiliary feedwater pump turbine] #2 governor

- (4) CR 2020-02064: CF [core flood] 1544 LLRT [local leak rate test] exceeded its MALR [maximum allowable leakage rate]
- (5) CR 2020-01702: Rust and staining on reactor vessel closure head flange

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) ECP 16-0332-001, Emergency feedwater (EFW) NFPA 805 manual isolation circuit
- (2) ECP 19-0011-004, Replacement of RCP [reactor coolant pump] seal return flow instrumentation

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (7 Samples)

The inspectors evaluated the following post maintenance test activities to verify system operability and functionality:

- (1) Auxiliary feedwater pump 1 after planned maintenance during the week ending January 4, 2020
- (2) Component cooling water pump 1 following planned maintenance during the week ending February 1, 2020
- (3) Decay heat/low pressure injection train 2 following planned maintenance during the week ending February 22, 2020
- (4) Startup transformer X02 following tap changes during the week ending March 7, 2020
- (5) High pressure injection 2A following planned maintenance during the week ending March 7, 2020
- (6) Emergency diesel generator 1 governor testing and tuning following planned governor replacement during the week ending March 14, 2020
- (7) Zero power physics testing during the week ending March 28, 2020

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Partial)

- (1) (Partial)
The inspectors evaluated licensee activities during refueling outage 21 from February 28, 2020 to March 30, 2020

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (5 Samples)

- (1) Auxiliary feedwater pump 2 quarterly surveillance during the week ending February 15, 2020

- (2) Spent fuel pool ventilation system refueling interval test during the week ending March 7, 2020
- (3) Safety features actuation system train 2 integrated test during the week ending March 7, 2020
- (4) Off-Site AC sources train B bus transfer test during the week ending March 14, 2020
- (5) Emergency diesel generator 2 monthly surveillance run during the week ending March 14, 2020

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards

Instructions to Workers (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated radiological protection-related instructions to plant workers

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors evaluated licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Observed licensee surveys of potentially contaminated material leaving the radiologically controlled area (RCA)
- (2) Observed licensee contamination surveys during steam generator work activities

Radiological Hazards Control and Work Coverage (IP Section 03.04) (3 Samples)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observation of radiological work activities:

- (1) Steam Generation Nozzle Dam Installation under RWP 120-5301
- (2) Auxiliary Building Radiological Controls for Radiography under RWP 120-6052
- (3) HP2A (high pressure injection line 2-1 isolation) Valve Replacement under RWP 120-6053

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (2 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

- (1) Auxiliary Building for Radiography
- (2) Containment 603' Elevation Refueling Floor

Radiation Worker Performance and Radiation Protection Technician Proficiency
(IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements

71124.02 - Occupational ALARA Planning and Controls

Implementation of ALARA and Radiological Work Controls (IP Section 03.03) (2 Samples)

The inspectors evaluated the licensee's communication of as low as is reasonably achievable ALARA and radiological work controls for the following work activities:

- (1) Steam Generation Nozzle Dam Installation under RWP120-5301
- (2) HP2A (high pressure injection line 2-1 isolation). Valve Replacement under RWP 120-6053

Radiation Worker Performance (IP Section 03.04) (1 Sample)

The inspectors evaluated radiation worker and radiation protection technician performance during:

- (1) The inspectors evaluated the implementation of as low as is reasonably achievable techniques for work activities during the 1R21 refueling outage

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

- (1) Unit 1 (January 2019 - December 2019)

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02)
(1 Sample)

- (1) Unit 1 (January 2019 - December 2019)

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

- (1) Unit 1 (January 2019 - December 2019)

71152 - Problem Identification and Resolution

Semiannual Trend Review (IP Section 02.02) (1 Sample)

Trend of Work Planning and Work Management issues

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in work management that might be indicative of a more significant safety issue

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

Personnel Performance (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the plant trip during start-up due to a failed Potential Transformer (PT) fuse and licensee's performance on March 25, 2020

INSPECTION RESULTS

Observation: Trend of Work Planning and Work Management issues	71152
<p>The inspectors reviewed the licensee's corrective action program for potential adverse trends in work planning and work management that might be indicative of a more significant safety issue. During the review period for this inspection sample, the inspectors noted that a significant number of low-level performance issues and errors had challenged the licensee. The inspectors determined that though some of these issues were directly attributable to human performance and/or procedural compliance, there were several that could be attributed to work planning and work management deficiencies. Specific examples associated with this trend included, but were not limited to:</p> <ul style="list-style-type: none"> • During the third quarter of 2019, the licensee commenced work to replace the control room emergency air temperature control system train 2 compressor. The plant risk due to the work was modeled as green but when maintenance personnel went out into the field, they identified the lift path for the train 2 compressor required lifting it over the train 1 equipment. The personnel correctly identified that this situation significantly increased the nuclear safety and generation risk (to yellow) and stopped work. The inspectors noted that the work planning process could have identified this issue prior to work starting. (CR 2019-06415) • While performing a field walkdown for motor driven feedwater pump target rock cable replacement, the licensee recognized that the conduit intended for use had other safety-related cables running through it that had not been identified during preparation of the engineering change package and work order. The licensee halted the work and developed an alternate approach. The inspectors determined that if this condition had not been recognized and work had proceeded as originally planned, the risk could have been higher than expected. Additionally, the inspectors noted this issue could have been identified during the engineering change process or the work planning process. (CR 2019-06418) • During a post maintenance run of the emergency feedwater pump, the work order mistakenly directed operators to run the emergency feedwater pump with valves aligned for steam generator injection and not recirculation as intended. The error resulted in an unintended emergency feedwater pump injection into Steam Generator 1 (SG1) for one minute and seventeen seconds. The inspectors noted this event could have been avoided at multiple points during the work planning process and execution of the work order. The inspectors documented this issue in inspection report 2019004 (section 71152). (CR 2019-07705) • During a scheduled functional test of the train 2 containment normal range radiation monitor (RE4597BA), the operator performing the test was provided the procedure written for the 	

train 1 containment normal range radiation monitor (RE4597AA). The operator followed the procedure he was given and initiated work on the wrong train component rendering both trains inoperable. The inspectors documented this issue in inspection report 2019002 (section 71152). (CR 2019-03346)

Individually, none of these examples may suggest an ongoing problem but when viewed in the aggregate, the inspectors determined they may indicate a programmatic weakness. Specifically, for these and other work planning deficiencies the station may be missing the opportunity to identify and resolve deficiencies prior to the work being started, potentially resulting in an adverse impact to the plant. The inspectors provided these observations to the licensee and the licensee agreed that additional focus may be necessary to evaluate the trend. The NRC inspectors plan to continue monitoring the licensee's actions to address work planning and work management issues.

EXIT MEETINGS AND DEBRIEFS

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

- On April 20, 2020, the inspectors presented the integrated inspection results to Mr. M. Bezilla, Site Vice President, and other members of the licensee staff.
- On March 6, 2020, the inspectors presented the radiation protection baseline inspection results to Mr. G. Norlund, Radiation Protection Manager, and other members of the licensee staff.
- On March 25, 2020, the inspectors presented the Davis-Besse ISI Inspection results to Mr. P. McCloskey, Performance Improvement Director, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Corrective Action Documents	CR-2019-02774	DHP#2 Suction Pressure Gauge Out of Cal	03/25/2019
		CR-2019-07307	Oil Drop Found on LPI Pump 2 Inboard Bearing	09/03/2019
	Drawings	M-033A	High Pressure Injection	49
		M-033B	Decay Heat Train 1	60
		M-033C	Decay Heat Train 2	30
		M-035	Spent Fuel Pool Cooling System	59
	Procedures	DB-OP-06011	High Pressure Injection System	34
		DB-OP-06012	Decay Heat and Low-Pressure Injection Operating Procedure	75
		DB-OP-06316	Diesel Generator Operating Procedure	63
	Work Orders	200728759	DB-SP3447-001 - Decay Heat Train 2 Pump and Valve Test	09/24/2019
71111.05	Fire Plans	PFP-AB-325	High Voltage Switchgear Room A	05
		PFP-CB-A236H	Annulus Space Except East and Southwest Penetration Areas at Elevations 585 and 603	07
		PFP-CB-A236L	East Penetration Area of Annulus Space Elevations 585 and 603	04
	Miscellaneous		Fire Hazards Analysis Report	28
	Procedures	DB-FP-04014	Fire Hose Station Inspections	11
71111.08P	Corrective Action Documents Resulting from Inspection	CR-2020-01702	Rust Deposits and Staining Noted on RVCH Fange	03/20/2020
		CR-2020-01798	New Indication Type Identified During SG Tube Examination	03/04/2020
		CR-2020-02164	Non-Relevant Indications Observed on Nine Nozzles During RVCH UT Exams	03/12/2020
	Procedures	0280-TECR-104262	EPRI Appendix H/N Eddy Current Technique Validation	00
		54-ISI-240-048	Visible Solvent Removable Liquid Penetrant Examination Procedure	05/24/2019
		54-ISI-603-011	Automated Ultrasonic Examination of RPV Closure Head Penetrations Containing Thermal Sleeves	02/24/2020
		54-ISI-829-014	PDI Generic Procedure for the Ultrasonic Examination of Dissimilar Metal Welds PDI-UT-10	01/22/2020
		54-ISI-836-018	PDI Generic Procedure for Ultrasonic Examination of Austenitic Piping Welds PDI-UT-2	01/22/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	200744645-01	Davis-Besse 2 1/2 HPA Valve Replacement	02/17/2019
71111.11Q	Miscellaneous		Simulator Guide CYC 2020-01	
	Procedures	DB-OP-02528	Instrument Air System Malfunctions	26
		NOP-OP-1002	Conduct of Operations	14
71111.12	Corrective Action Documents	CR-2019-10259	CCW Pump Outboard Bearing Design	12/09/2019
		CR-2020-00174	Component Cooling Water Pump #1 Mechanical Seal Leak	01/10/2020
		CR-2020-00362	Design Engineering Review/Evaluation of Data for any Impact on Design Basis of CCW Pump 1	01/17/2020
		CR-2020-00365	Abnormal Color in Oil Sample from CCW Pump 1 Outboard Bearing	01/18/2020
		CR-2020-00642	Design Engineering Evaluation of CCW Pump 1 Performance per DB-PF-03572, Step 4.41	01/27/2020
		CR-2020-00651	CC1 (CCW Pump 1 Suction Valve) Stem Lock Handle is Missing	01/27/2020
		CR-2020-01257	CCW Pump #1 Lessons Learned	02/18/2020
		CR-2020-02239	Change oil in P43-1 as Soon as Practical Due to High Iron and Silicon	03/15/2020
		CR-2020-10256	CCW Pump Inboard and Outboard Bearing Reservoir Coatings are Deteriorating	12/09/2019
	Corrective Action Documents Resulting from Inspection	CR-2020-02858	Rust Identified on Spring Can Pipe Support 33-GCB-1-H3	04/01/2020
	Miscellaneous		Structures Monitoring Inspection ECCS Pump Rm 1	03/31/2017
			Structures Monitoring Inspection ECCS Pump Rm 1	08/16/2019
			Structures Monitoring Inspection ECCS Pump Rm 2	03/13/2017
		LRPD-05 Attachment 3.7	Aging Management Program Evaluation Results - Structures Monitoring Program	5
		MRPM	Maintenance Rule Program Manual	37
	NDE Reports	20-VT-101	Section XI Variable Spring Hanger Support Aux/Rm 500	03/10/2018
		20-VT-108	Section XI Variable Spring Support AFP #1 Rm	03/13/2018
	Procedures	DB-PF-03572	Component Cooling Water Pump 1 Baseline Test	06
		DBBP-OPS-0011	Protected Equipment Posting	14

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		EN-DP-01511	Structures Monitoring	11
		NA-QC-05560	Visual Examination Procedure for VT-1, VT-3, and General Visual Examinations	12
		200708089	Repair Inboard Bearing Oil Leak	03/19/2020
		200736805	CCW Pump 1 Clean/Lubricate/Inspect	03/18/2020
	Work Orders	200739481	CCW Pump1 Oil Level Validation	03/23/2020
		200763444	CCW Pump 1 Constant Level Oilers	01/29/2020
71111.13	Corrective Action Documents	CR 2017-10941	Pipe Spring Identified on the Separator Tank for the Seal Oil Vacuum Pump (P76_H)	10/31/2017
		CR 2020-00607	Main Gen Seal Oil Vacuum Pump Degraded	01/25/2020
		CR-2020-00230	Power Excursion While Placing ICS Back in Auto	01/13/2020
		CR-2020-01255	As Found Condition Identified with the New Seal Cartridge for the Decay Heat Pump	02/17/2020
		CR-2020-01257	CCW Pump #1 Lessons Learned	02/18/2020
		CR-2020-01363	Decay Heat Pump 2 Inboard Seal Package Leakage ~2 dpm	02/21/2020
		CR-2020-01622	ICS11A Failed to Operate from Control Room During Plant Shutdown	03/01/2020
		CR-2020-01848	1R21 Framatome - Nuclear Instrument (NI) Well Covers Leaking	03/05/2020
	Drawings	M-035	Spent Fuel Pool Cooling System	59
		OS-025	Main Generator Seal Oil System	14
	Miscellaneous		Response to Generic Letter Number 88-17, Loss of Decay Heat Removal	01/03/1989
			Acuren Radiography Shot Plan for HP2A at DBNPS	3
		1R21 Shutdown Defense In Depth Report	Contingency Plan for RCS Drain Below Flange Level and Operation Below 80 Inches Above the RCS Hot Leg Centerline	0
		Lesson Plan G-OPS-FHT	G-OPS-FHT Operations and Operation Contract Support Personnel Fuel Handling Equipment	7
		NOBP-OP-0007-01 IPTE Worksheet	1R21 Reactor Head Lifts From and to the Reactor Vessel	02/10/2020
		NOP-CC-5703-05	Repair/Replacement Certification Record	04
		NOP-OP-1007-01	Risk Management Plan	7

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Procedures	DB-MM-09088	Reactor Vessel Head Removal	10
		DB-MM-09089	Reactor Vessel Closure Head Stud Removal	09
		DB-MM-09388	Reactor Vessel Head CRDM Service Structure Disconnects	01
		DB-MN-00006	Control of Lifting and Handling of Heavy Loads	17
		DB-OP-02016	Generator Alarm Panel 16 Annunciators	31
		DB-OP-02527	Loss of Decay Heat Removal	20
		DB-OP-06002	RCS Draining and Nitrogen Blanketing	28
		DB-OP-06902	Power Operations	68
		DBBP-OPS-0011	Protected Equipment Posting	14
		NOBP-OP-0007	Conduct of Infrequently Performed Tests or Evolutions	7
		NOP-OP-2018-02	Report of Repair/Replacement Activities for Nuclear Facilities	03
	Work Orders	200755711	Decay Heat and Low Pressure Injection Install Cartridge Seals	03/12/2020
71111.15	Corrective Action Documents	2019-00351	Info Only Test on Relief Valve DO3671. Valve did not Lift	01/14/2019
		2019-10096	Bolt Found Missing in Diesel Relief Valve DO3672	12/03/2019
		2020-01840	Transverse Crack in Peripheral Weld AFPT #2 Governor	03/05/2020
		2020-02064	CF1544 LLRT Exceeded Its MALR	03/10/2020
		CR 2020-01984	1R21 Framatome - Potentially Incorrect CRDM [Control Rod Drive Mechanism] O-Ring Lubricant Supplied as Equivalent	03/09/2020
		CR-2020-01257	CCW Pump #1 Lessons Learned	02/18/2020
		CR-2020-01702	Rust and Staining on Reactor Vessel Closure Head Flange	03/02/2020
		CR-2020-01798	New Indication Type Identified during SG Tube Examination	03/04/2020
		CR-2020-01840	Transverse Crack in Peripheral Weld AFPT #2 Governor	03/05/2020
		CR-2020-01925	Nuclear Fuel - DB1R21: Fuel Inspection - Fuel to Baffle Interaction Fuel Rod Wear Observed on Fuel Assembly	03/07/2020
		CR-2020-01936	DB-ZS-ICS-11B-B1 Position Switch for PV-ICS11B Not Charging	03/08/2020
	Drawings	DB-MM-09190	Control Rod Drive Mechanism Quick Vent and Hydraulic	14

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Closure Maintenance	
		OS-041C	Emergency Diesel Generator Diesel Oil System	19
	Engineering Evaluations	601154925	Evaluate ICS38A Seat Seal Weld Crack	03/11/2018
	Miscellaneous	ISTB4	Pump and Valve Basis Document, Volume IV - Maximum Allowable Leakage Rate (MALR) Basis	23
	Procedures	DB-MM-09344	Emergency and Station Blackout Diesel Engine 4-Year Maintenance	07
		DB-OP-06012	Decay Heat and Low Pressure Injection System Operating Procedure	75
		DB-OP-06234	Emergency Feedwater System	06
		NOP-LP-2018-02	Report of Repair/Replacement Activities for Nuclear Facilities	03
		NOP-OP-1009	Operability Determinations and Functionality Assessments	08
	Shipping Records	Purchase Order 45382204/0	Quality Control Receiving Inspection Report for DC Fuel Oil Pump	05/08/2012
		Purchase Order 45463301/1	Quality Control Receiving Inspection Report for Valve - Relief from Supplier Engine Systems Incorporated	06/12/2015
71111.18	Engineering Changes	16-0332	Emergency Feedwater (EFW) NFPA Manual Initiation Circuit	1
		19-0011-004	Replacement of RCP Seal Return Flow Instrumentation - FEMU60D/FTMU60D (and Installation of Relief Valve to Address Potential Overpressurization of Penetration 56 Piping)	3
71111.19	Corrective Action Documents	CR 2020-02613	ZPPT: Cycle 22 Control Rod Worth Greater than Predicted	03/25/2020
		CR 2020-02682	Cycle 22 Hot Zero Power (HZP) Reactivity Anomaly Larger than Expected	03/27/2020
		CR-2020-01245	Voided Pipe Upstream of DH200	02/17/2020
		CR-2020-01257	CCW Pump #1 Lessons Learned	02/18/2020
		CR-2020-01363	Decay Heat Pump 2 Inboard Seal Package Leakage ~2 dpm	02/21/2020
		CR-2020-01891	HP2A Stroke Times are Less Than Expected Stroke Times	03/06/2020
		CR-2020-01895	HPI Pump 2-D Horizontal Vibe Reading in the Alert Range	03/07/2020
		DB-SP-03151	AFP 1 Quarterly Test	29
	Miscellaneous	NOP-CC-5703-05	Repair/Replacement Certification Record	04
	Procedures	DB-ME-09700	Woodward 2301A Electronic Load Sharing and Speed	5

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Control Setup and Adjustment	
		DB-MM-09098	AFPT Governor Maintenance	17
		DB-MM-09150	AFPT Maintenance	17
		DB-OP-06314	13.8 KV Switching	17
		DB-OP-06316	Diesel Generator Operating Procedure	3
		DB-PF-03207	HPI Pump Comprehensive and Check Valve Forward Flow Test Train 1	12
		DB-PF-03208	HPI Pump Comprehensive and Check Valve Forward Flow Test Train 2	13
		DB-PF-03572	Component Cooling Water Pump 1 Baseline Test	06
		DB-PF-09302	Testing Motor Operated Valves	10
		NOP-LP-2018-02	Report of Repair/Replacement Activities for Nuclear Facilities	03
	Work Orders	200738187	AFP 1 Quarterly Test	01/02/2020
		200746960	Auxiliary Feedwater Pump Turbine 1-1 Preventive Maintenance	01/02/2020
		200755827	NE3212-001 Zero Power Physics Test RFL	03/25/2020
		200755962	HPI Pump Comprehensive Test	03/07/2020
71111.20	Corrective Action Documents	2020-02269	TYTRC7A [Reactor Coolant Loop 2 Temperature Difference Indicator] Found Out of Tolerance	03/16/2020
		CR-2020-00683	Procedure Non-compliance: NOP-LP-4011 - Work Hour Controls	01/29/2020
		CR-2020-00984	Cycle 22 Fuel Receipt - Marking Identified on Fuel Cladding of Assembly UDDG65 During Receipt Inspection	02/08/2020
		CR-2020-01190	Pipe Supports Removed During MFPT #2 Pre-Outage Work	02/14/2020
		CR-2020-01617	DB-PF-03180 Leakage Observed from RC 51	02/29/2020
		CR-2020-01758	1R21 Framatome Spring Scale Not Used for CRDM Leadscrew Uncoupling Parking	03/04/2020
		CR-2020-01863	Cooling Tower Column Degradation	03/06/2020
		CR-2020-01880	HP2A Critical Path Re-Assembly Delays	03/06/2020
		CR-2020-01886	Rust Buildup Found on Internals of New Aux Feed Trip Throttle Valve	03/06/2020
		CR-2020-01897	Ground on Bus E1	03/07/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-2020-01904	Corrosion Found on Shield Building Wall	03/07/2020
		CR-2020-02009	1R21 - Incidental Duties Performed Off-site Result in Fatigue Rule Violations	03/09/2020
		CR-2020-02112	DB 1R21 Trend in Work Hour Rule Compliance	03/11/2020
		CR-2020-02112	DB 1R21 Trend in Work Hour Control Compliance	03/11/2020
		CR-2020-02164	Non-Relevant Indications Observed on Nine Nozzles During RVCH UT Exams	03/12/2020
		CR-2020-02203	Emergency Diesel Generator 1 Emergency Shutdown	03/13/2020
		CR-2020-02217	SP7A 3-way Valve Vent Hole is Leaking	03/14/2020
		CR-2020-02222	Diode for K2 Relay Shorted	03/14/2020
		CR-2020-02238	Issue Noted During Performance of DB-MI-03743	03/15/2020
		CR-2020-02248	ICS11A Did Not Operate Smoothly	03/15/2020
		CR-2020-02448	1R21 CTMT Closeout Inspection Results	03/20/2020
		CR-2020-02524	1R21 - Unapproved Material Found in CTMT During Mode 3	03/23/2020
		CR-2020-02557	Foreign Material Identified During Mode 3 Inspection of Integrated Head Assembly	03/24/2020
		CR-2020-02562	1R21 BACC: A Packing and Pipe Cap Leak Was Found on CF60	03/24/2020
		CR-2020-02576	1R21 Final CTMT Closeout Inspection Results	03/24/2020
	Corrective Action Documents Resulting from Inspection	CR-2020-01376	Fuel Handling JFG Documentation Issue	02/21/2020
		CR-2020-01650	Material Control Within a Posted Protected Equipment Area	03/01/2020
		CR-2020-02063	1R21 Framatome - Spent Fuel Building FME Area Sign	03/10/2020
	Miscellaneous	NOBP-OP-1004-02	Evolution Specific Reactivity Plan	1/7/2020
	Procedures	Cycle 22 COLR	Cycle 22 Core Operating Limits Report	1
		DB-MM-09234	Equipment Hatch Removal and Reinstallation	34
		DB-NE-06303	Fuel Handling in the Auxiliary Building	20
		DB-NE-06307	Fuel Storage Handling Bridge Operating Procedure	12
		DB-NE-06308	Main Fuel Handling Bridge Operating Procedure	14
		DB-OP-02547	Spent Fuel Pool Cooling Malfunctions	08
		DB-OP-06021	Spent Fuel Pool Operating Procedure	38
		GEN-MNT- 0004	Foreign Material Exclusion	00

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		NG-DB-0017	Shutdown Defense in Depth Assessment	19
		NOBP-OP-1004-02	Cycle 21 End of Cycle Shutdown While Restoring Tave to 582F	02/24/2020
	Radiation Surveys	CR-2020-02258	CF-4A1A Found Leaking (CF-LT3A1)	03/15/2020
71111.22	Corrective Action Documents	CR 2020-01837	DB-SS-03708 Spent Fuel Pool Ventilation System Refueling Interval Test Acceptance Criteria 5.3 Not Met	03/05/2020
		CR-2020-02423	Field Copy of DB-SC-03121 Lost Before Transferring Data to Master	03/19/2020
	Drawings	E-1043 Sh 1	Emergency Diesel Generator 1-2 Loading Table	28
		E-1043 Sh 2	Emer. Diesel Generator 1-2 Loading Table	30
	Miscellaneous		Recommended Enhanced Monitoring of the AFPT 2 Governor and Governor Valve Linkage Prior/During the Performance of DB-SP-03160 AFP 2 Quarterly Testing	02/14/2020
			Technical Requirements Manual	21
	Procedures	DB-SC-03022	Off-Site AC Sources Bus Transfer Test	20
		DB-SC-03071	Emergency Diesel Generator 2 Monthly Test	37
		DB-SP-03160	AFP 2 Quarterly Test	34
	Work Orders	200756129	SFAS Train 2 Integrated Response Time Test	03/19/2020
		200756227	SS3708-001 SFP Ventilation Test	03/05/2020
		200817786	SFAS Component Test CV5075	03/17/2020
71124.01	Calculations	DB-HP4344-01	Source Term Determination	08/02/2019
	Calibration Records		Containment Access Facility Exit Radiological Monitor Calibration and Setpoint Data	Various
	Corrective Action Documents	CR-2019-05009	Elevated Contamination Levels Found in Clean Areas of Auxiliary Building	06/07/2019
		CR-2019-08502	Continuous Noble Gas Monitor, AMS-4, Failed Due to Water Intrusion	10/16/2019
		CR-2019-08763	Individual Received a Dose Rate Alarm	10/22/2019
		CR-2019-10082	Individual Alarmed Passive Monitoring	12/02/2019
		CR-2019-10166	Elevated Dose Rates Identified in Dry Shielded Container Drain Port Hole	12/05/2019
	Procedures	NOP-OP-4101	Access Controls for Radiologically Controlled Areas	16

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		NOP-OP-4102	Radiological Posting and Labeling	15
		NOP-OP-4104	Job Coverage	11
		NOP-OP-4701	Radiation and Contamination Surveys	3
	Radiation Surveys		Steam Generator Lower Bowl and Platform Radiological Surveys and Air Sample Data	Various
	Radiation Work Permits (RWPs)	120-5302	Once-Through Steam Generator Activities	0
71124.02	ALARA Plans		1R21 Refuel Outage Dose Estimate Trend	03/06/2020
	Miscellaneous		Shutdown Chemistry and Source Term Reduction Plan 1R21	0
		RWP 120-5019	Alara Plan Waiver Form	11/16/2019
		RWP 120-5405	Alara Work in Progress Review	03/04/2020
	Procedures	NOP-OP-4107	Radiation Work Permit (RWP)	18
	Radiation Work Permits (RWPs)	120-5104	Reactor Head Disassembly and Reassembly Work Activities	0
		120-5304	Rotate Orifice Plate Inside Steam Generator 1-1 and 1-2	0
71151	Corrective Action Documents	CR 2019-00201	Steam Leak on MS100-1 Piping	01/08/2019
	Miscellaneous		Licensee Logs	Various
		NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
71152	Corrective Action Documents	CR-2019-06415	CREATCS Train 2 Compressor Replacement Under Order 200582815 was Not Identified as Yellow Nuclear Safety and Generation Risk	07/30/2019
		CR-2019-06418	Critical Order ECP15-0138-004 Target Rock Work Order Dropped at T+1	07/30/2019
		CR-2019-06544	Chemistry Step in the WIS was Incorrectly Scheduled for the Auxiliary Boiler Outage	08/04/2019
		CR-2019-07192	On-line Preparation Milestones not Followed IAW NOP-WM-0001 Work Management Process	08/28/2019
		CR-2019-07763	System Leakage Test of CCW Pump #3 as #1 - Schedule Change at T-0	09/20/2019
		CR-2019-07864	Field Problem Resolution was not Processed Correctly	09/25/2019
		CR-2019-09876	Unexpected Loss of Power on Security MUX6 Primary Communication AdTran	11/22/2019
		CR-2019-09925	AD110 HFA Relay Testing concerns	11/25/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-2019-09949	Poor Planning for #2 Circ Pump Maintenance	11/26/2019
		CR-2019-10670	AFW Train 1 Lube PM Removed from Schedule at T5 and Placed Back into Schedule at NWW Without Crew Acknowledgement	12/30/2019
		CR-2019-10674	LPI 1 Post-Quarterly Run Oil Sample Requires a Clearance and Determination to Defer the Sample not Completed at T2	12/30/2019
		CR-2020-00037	Switchyard Breaker 34560 Project Schedule Impacts	01/02/2020
		CR-2020-01036	1R21 Orders Changing from RDEX to APLN for Additional Information	02/11/2020