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

October 7, 2021

Mr. Terry Brown
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 – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000346/2021010

Dear Mr. Brown:

On August 20, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your Davis-Besse Nuclear Power Station and 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.

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.

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,

Signed by Dickson, Billy
on 10/07/21

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 Terry Brown from Billy Dickson dated October 7, 2021.

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000346/2021010

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000346
License Number:	NPF-3
Report Number:	05000346/2021010
Enterprise Identifier:	I-2021-010-0051
Licensee:	Energy Harbor Nuclear Corp.
Facility:	Davis-Besse Nuclear Power Station
Location:	Oak Harbor, OH
Inspection Dates:	August 02, 2021 to August 20, 2021
Inspectors:	B. Boston, Emergency Response Coordinator R. Cassara, Resident Inspector R. Elliott, Senior Resident Inspector V. Myers, Senior Health Physicist
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 a biennial problem identification and resolution 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.

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. 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), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or a 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 some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

OTHER ACTIVITIES – BASELINE

71152B - Problem Identification and Resolution

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

(1) 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. The inspectors also conducted a five-year review including a 5-year time period for the Decay Heat Removal-Low Pressure Coolant Injection, Component Cooling Water (CCW), and Service Water systems.

- 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

Assessment of the Corrective Action Program

Based on the activities that the inspectors selected for review, the inspection team concluded that the implementation of the problem identification and resolution process (the corrective action program) was adequate to appropriately protect the health and safety of the public and the environment. The plant staff had a low threshold for identifying problems and entering them, in a timely manner, in the condition report (CR) system. Items entered into the corrective action program (CAP) were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. The team noted that the licensee reviewed Operating Experience (OE) for applicability to station activities. Audits and self-assessments appeared to be performed at an appropriate level to identify deficiencies. In interviews conducted during the inspection, workers at the site expressed freedom to bring up nuclear safety concerns and were encouraged to enter items in the CAP system.

Effectiveness of Problem Identification

Overall, the station effectively identified issues at a low threshold and was properly entering them into the CAP as required by station procedures. The team determined that the station was generally effective at identifying negative trends that could potentially impact nuclear safety. For the areas reviewed, the team did identify one issue in the area of problem identification. During the team's review of one condition report and the associated corrective action, the team observed that the licensee did not specify a valve and related piping had been over-pressurized until after the licensee had installed the valve into the decay heat removal system (Valve DH210 in CR-2016-05753). Condition Report-2016-05753 addressed leakage from valve DH210, which led to the discovery that the valve and associated piping had been over-pressurized during bench testing. The licensee evaluation noted that although the 3000 psig test failure led to appropriately changing the testing pressure to 97 psi, the licensee did not write a condition report to identify they were testing at the incorrect pressure for the valve and associated piping. The team determined that the licensee was generally effective at trending low-level issues and taking appropriate corrective actions to prevent more significant issues from developing. Trends for open CRs and work orders appeared reasonable. The licensee used the CAP to document instances in which previous corrective actions were ineffective or were inappropriately closed.

Effectiveness of Prioritization and Evaluation of Issues

Based on the samples reviewed, the team determined that licensee performance was adequate. The Management Review Committee meetings were generally thorough and intrusive in reviewing issues and prioritizing actions. The team observed a healthy dialogue between the members of this committee when dispositioning condition reports. Generally, the licensee completed the evaluations in a timely manner. While the team did not identify issues with the effectiveness of prioritization and evaluation of issues, the team determined that the licensee coded various CRs related to radiation protection as NC (non-CAP), including one related to an intake of radioactive material. Governing procedures are high level and allow for flexibility in coding items not covered by 10 CFR 50 Appendix B. The inspection team determined this flexibility can lead to inconsistency in how the licensee

addressed these types of issues. For example, it appears all contamination found in clean areas are maintained in the CAP, but contamination found in a person may not. However, a review of actions taken in response to these CRs indicates that the corrective actions (CAs) are being performed appropriately outside the CAP.

Effectiveness of Corrective Actions

Based on the samples reviewed, the team determined that the licensee was adequately implementing CAs with some licensee-identified opportunities for improvement in CA implementation. In general, the licensee implemented CAs for deficiencies that were safety-significant in an adequate and timely manner. The team sampled CA assignments developed for selected NRC documented violations, selected licensee event reports, some license self-assessments, and some licensee-identified issues. Where either enough time had elapsed, and/or the licensee had performed effectiveness reviews, the team also looked at the effectiveness of the CAs (i.e., was there a recurrence of the issues). The team did not identify problems of the efficacy of CAs.

Safety Conscious Work Environment

The team found no evidence of challenges to the licensee's safety-conscious work environment (SCWE). Plant employees appeared willing to raise nuclear safety concerns through at least one of the several means available. The team observed various station meetings, including those in which new CRs were reviewed, and interviewed a representative cross-section of multiple station personnel, including individual and group interviews. Additionally, the team assessed the annual SCWE evaluations. Specifically, during SCWE interviews, it was brought to the team's attention that anonymous CRs via the Employee Concerns Program (ECP) were not accurately addressing the individual's concern. The team reviewed the survey results from 2018-2020 and recognized moderate negative staff responses regarding the belief that issues reported through the ECP will be thoroughly investigated and objectively dispositioned, the use of ECP without fear of retaliation, and keeping the identity of individuals confidential at the individual's request. The survey results also identified high negative responses in Chemistry, Maintenance, and Security regarding the confidence in the CR process to properly prioritize, investigate, and resolve issues reported and effectively resolve conditions adverse to quality in a timely manner.

EXIT MEETINGS AND DEBRIEFS

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

- On August 20, 2021, the inspectors presented the biennial problem identification and resolution inspection results to Terry Brown, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Corrective Action Documents	CR-2016-05753	DB EFW / FLEX Project - Valve DH210 Over-Pressurized and Over-Torqued.	04/22/2016
		CR-2017-03328	NRC 2017 UHS Inspection: Vulnerabilities Identified with ECCS Room Cooler Clean/Inspection Strategy.	03/23/2017
		CR-2019-00225	Crack Detected on MSIV-2 Bypass Piping Sockolet Weld	01/09/2019
		CR-2019-00251	Procedure Non-Compliance: NOP-LP-4011- Work Hour Controls	01/10/2019
		CR-2019-00709	RP SCWE Survey Red Window Results Regarding Effectiveness of CAP	01/23/2019
		CR-2019-03102	Sink Hole Outside of Door 301	04/02/2019
		CR-2019-03762	Potential to Implement Temporary Configuration Changes Without Evaluation Under 50.59/72.48	04/22/2019
		CR-2019-04914	SW38 New Valve Taper Pin as Found Condition	06/04/2019
		CR-2019-05429	WANO Observation Review: Nuclear Safety Culture Weaknesses in PI&R and WP	06/24/2019
		CR-2019-05843	NRC Concern: Replacement SW38 Taper Pins	07/10/2019
		CR-2019-05966	2019 WANO: AFI OR.2-Failure to Resolve Some Important Vulnerabilities.	07/15/2019
		CR-2019-05967	2019 WANO: AFI CY.1 - Inaccurate Results During Laboratory Cross-Check Analysis	07/15/2019
		CR-2019-05968	2019 WANO: AFI ER.4 - Deficiencies in Cathodic Protection System	07/15/2019
		CR-2019-06949	Door 215 Left Open for Extended Amount of Time Without Permission Resulting in Loss of Safety Function	08/19/2019
		CR-2019-07152	Part 21 for Fisher Butterfly Valves	08/27/2019
		CR-2019-07154	2019 NRC Radioactive Effluents and REMP: Implementation of Environmental Dosimetry ANSI N13.37-2014	08/27/2019
		CR-2019-07769	Cognitive trending – Condition Reports Relative to Contamination Found in Clean Area of Radiological Controlled Area	09/20/2019
		CR-2019-07840	Cognitive Trending – Increase in Radiological Instrumentation Condition Reports in Third Quarter of 2019	09/24/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-2019-09729	ECCS Room 1 Sump Pump 1A Degraded Operation	11/18/2019
		CR-2019-09924	NRC: NCV 2019003-01 on Inadequate Work Instructions for a Valve Installation	11/25/2019
		CR-2019-10379	NRC Inspection: Diving Dosimetry Enhancements	12/11/2019
		CR-2020-00755	Valve Mispositioned (closed) During Oil Sampling	01/31/2020
		CR-2020-01605	Failure to Follow NOP-LP-1002 Fitness for Duty Program Requirements	02/29/2020
		CR-2020-02195	21RFO Level 1 Personnel Contamination Event - Facial Contamination	03/12/2020
		CR-2020-02741	Unexpected Rod Insertion during FW Flow Calibration	04/28/2020
		CR-2020-04095	A Level Schedule Deviation for AFW testing	05/08/2020
		CR-2020-04235	REMP Air Monitor Loss of Power Trend	05/14/2020
		CR-2020-04264	Revised Maintenance Rule Failure Determinations.	05/14/2020
		CR-2020-05158	What is the Evidence/ Scientific Basis for Unvaccinated Individuals Wearing Masks?	07/06/2021
		CR-2020-05163-ATA-01	Update MRPM for Makeup & Purification system	06/09/2020
		CR-2020-06105	Corrective Action Exceeded Due Date - Emergency Response	08/01/2020
		CR-2020-06587	CCW Pump #1 Exceeded Maintenance Rule Unavailability Limit.	08/21/2020
		CR-2020-08112	Outer Cover Inadvertently Removed During Testing on MS107A	10/20/2020
		CR-2020-08586	Basis of Management Desired Staffing Levels	11/05/2020
		CR-2020-0882	2020 1st half NSCMP: Trait 4-Leadership Accountability, Area in Need of Improvement.	11/13/2020
		CR-2020-08948	Increase in REMP Air Monitor Gross Beta Results	11/19/2020
		CR-2021-00542	NRC NCV: Failure to Perform a 50.59 Evaluation for a Change to a TRM Surveillance	01/28/2021
		CR-2021-01649	Performance Assessment Elevation: Emergency Response Organization (ERO) Call-In Test / Drill Performance.	03/09/2021
		CR-2021-02098	Trending of Chemistry Program CRs for Sectional/Organizational Learnings	03/22/2021
		CR-2021-02204	NRC NCV: Failure to Maintain the Effectiveness of the	03/25/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Emergency Plan due to Telephone Issues.	
		CR-2021-03208	Radiological Environmental Monitoring Program Air Sampler T-7 Power Interruption	04/22/2021
		CR-2021-04400	REMP Air Sampler T-1 Power Interruption	06/02/2021
		CR-2021-04502	Trending of RP Instrumentation	06/07/2021
		CR-2021-04857	COVID-19 Related Concerns/Questions	06/22/2021
		CR-2021-05048	Radiological Environmental Monitoring Program Air Sampler T-12 Power Interruption	06/30/2021
		DB-MI-04241	String Check Of 45A-ISFSP02A2 Main Feedwater Flow Loop 2 (Periodic Test Procedure)	09
		DB-MI-04243	String Check Of 45A-ISFSP02B2 Main Feedwater Flow Loop 1 (Periodic Test Procedure)	08
		NOBP-LP-2502	Safety Culture Monitoring	14
		OE-2019-0067-2	OE447550R20190221 Ultrasonic Inspection Indication on Reactor Head Nozzle Penetration.	03/18/2019
		OE-2019-0122-2	IN1901, Inadequate Evaluation of Temporary Alterations.	03/29/2019
		OE-2019-0159-2	OE437513R20190419 Condition Prohibited by Technical Specifications Due to Untimely Recognition of Failed Laboratory Analysis of Ventilation Charcoal Sample.	05/30/2019
		OE-2020-0072-2	OE468879R20200310 Auxiliary Feedwater System Declared Inoperable Due to Check Valve Leakage.	04/13/2020
		OE-2021-0063-1	DB Effectiveness Review for IER L2 12-14 Rev 1, Automatic Reactor Scram Resulting Form A Design Vulnerability in the 4.16-Kv Buss Undervoltage Protection Scheme, Rec. 3	02/04/2021
	Miscellaneous	ATA-2020-15317	Evaluate Davis-Besse Condition Report Initiation Rate	12/14/2020
		M-215-00095	Instruction Manual for 9100 Series Butterfly Control Valve Bodies	05
		M-215-00095	Instruction Manual for 9100 Series Butterfly Control Valve Bodies	07
		Nuclear safety culture monitoring panel	1st Half 2021 NSCMP Package	08/17/2021
		SA-BN-2020-1828	2nd Half 2019 DBNPS Nuclear Safety Culture Monitoring Panel	02/17/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Procedures		Quality Assurance Program Manual	28
		DB-CH-00002	Chemistry Laboratory Techniques and Practices.	Rev 01 07/24/2020
		DB-CN-00013	Review and Evaluation of Radiological Environmental Monitoring Program Sample Analysis Results	05
		DB-MI-04240	String Check Of 45A-ISFSP02A1 Main Feed Water Flow Loop 2 (Periodic Test Procedure)	09
		DB-MI-04242	String Check Of 45A-ISFSP02B1 Main Feedwater Flow Loop 1 Periodic Test Procedure)	08
		DB-MM-09317	Fisher Type 9100 Butterfly Control Valve Maintenance	05
		DB-MM-09317	Fisher Type 9100 Butterfly Control Valve Maintenance	03
		NOBP-LP-2001	Self-Assessment and Benchmarking	31
		NOBP-LP-2003	Employee Concerns Program	03/30/2021
		NOBP-LP-2008	Corrective Action Review Board	25
		NOBP-LP-2011	Cause Analysis	28
		NOBP-LP-2018	Integrated Performance Assessment	19
		NOBP-LP-2022	Compliance Auditing	20
		NOBP-LP-2100	Operating Experience Process	22
		NOBP-LP-2502	Safety Culture Monitoring	15
		NOP-LP-1002	Fitness for Duty Program	30
		NOP-LP-2001	Corrective Action Program	48
		NOP-OP-4204	Special External Exposure Monitoring	12
		NOP-P-1009	Operability Determinations and Functionality Assessments	09
		NOP-WM-0001	Work Management Process	13
		NOPM-LP-0001	Personal Safety Manual	10/01/2020
		NOPM-LP-2009	Human Performance Handbook	10/01/2020
		NORM-LP-2003	Analytical Methods Guidebook	14
	Self-Assessments		Davis-Besse SCWE Survey Results for September 2019	10/01/2019
			Davis-Besse SCWE Survey Results for September 2020	10/01/2020
		ATA-2020-11612	2020 Davis-Besse Mid-Cycle Assessment.	09/28/2020
		ATA-2020-12956	Davis-Besse Nuclear Safety Culture Monitoring Panel 2020 1st Half.	11/16/2020
		MS-C-19-08-03	Radiation Protection/Radwaste	09/12/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		MS-C-20-05-07	Maintenance/Work Management Program	06/30/2020
		MS-C-20-08-02	Chemistry/Environmental	09/18/2020
	Work Orders	200691026	SS3145-001 05.001 CREVs Train 1 CTRM EVS Refuel/Spec Test	04/04/2019
		200764571	SS3146-001 05.001 CREVs Train 2 CTRM EVS Refuel/Spec Test	06/29/2021