



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
475 ALLENDALE RD, STE 102  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

July 10, 2023

David P. Rhoades  
Senior Vice President  
Constellation Energy Generation, LLC  
President and Chief Nuclear Officer (CNO)  
Constellation Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 –  
COMMERCIAL GRADE DEDICATION REPORT 05000317/2023012 AND  
05000318/2023012

Dear David Rhoades:

On June 9, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Calvert Cliffs Nuclear Power Plant and discussed the results of this inspection with Patrick D. Navin, Site Vice President, 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,

Glenn T. Dentel, Chief  
Engineering Branch 2  
Division of Operating Reactor Safety

Docket Nos. 05000317 and 05000318  
License Nos. DPR-53 and DPR-69

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 –  
COMMERCIAL GRADE DEDICATION REPORT 05000317/2023012 AND  
05000318/2023012 DATED JULY 10, 2023

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

Docket Numbers: 05000317 and 05000318

License Numbers: DPR-53 and DPR-69

Report Numbers: 05000317/2023012 and 05000318/2023012

Enterprise Identifier: I-2023-012-0007

Licensee: Constellation Energy Generation, LLC

Facility: Calvert Cliffs Nuclear Power Plant

Location: Lusby, MD

Inspection Dates: May 22, 2023 to June 9, 2023

Inspectors: P. Cataldo, Senior Reactor Inspector  
L. Cline, Senior Reactor Inspector  
D. Kern, Senior Reactor Inspector

Approved By: Glenn T. Dentel, Chief  
Engineering Branch 2  
Division of Operating Reactor Safety

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a commercial grade dedication inspection at Calvert Cliffs Nuclear Power Plant, 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.

## REACTOR SAFETY

### 71111.21N.03 - Commercial Grade Dedication

#### Commercial Grade Dedication (Section 03.01) (15 Samples)

The inspectors reviewed the implementation of the licensee's processes for dedicating commercial grade items/services as basic components and/or for procuring safety-related structures, systems, and components for the following samples:

- (1) Battery, memory, lithium, Type 2/3A, 3.6 V Capacity for the 1A emergency diesel generator ventilation damper controller (Purchase Order Number (PO#) 437227, Catalog ID Number (CID#) 1480667-2, commercial grade (CG))
- (2) Capacitor, electrolytic, 7400 microfarads, 200 Vdc, Cornell-Dubilier P/N DCM742T200DF2B for the #17 125 Vdc battery charger (PO# 431961, CID# 1478629-2, CG)
- (3) Connector, battery, plate, terminal, lead plated copper (0.002-inch thickness minimum) for the #11 125 Vdc battery (PO# 714427, CID# 1508666-2, CG)
- (4) Fuses, one-time, general purpose, 250 Vac, 30 A, 50 kA RMS Interrupter Rating, Bussman for Unit 2 reactor trip breakers control power (PO# 434136, CID# 1495549-2, CG)
- (5) Valve, solenoid, 3-Way, normally open, ASCO for the 1B emergency diesel generator air start valve AS1 (PO# 594172, CID# 1475327-2, CG)
- (6) Switch, limit, Microswitch HDLS Series, part number LSP4L, DP/DT for the Unit 1 Number 12 condensate storage tank auxiliary feedwater pump suction valve (PO# 1349186, CID# 1509870-2, CG)
- (7) Switch, control, speed, electronic, two-element, Synchro-Start Products Model for the 1B emergency diesel generator (PO# 548178, CID# 1481037-1, safety-related (SR))
- (8) Air filter for the 1A1 emergency diesel generator turbocharger (PO# 13460179, CID# 1514169-2, CG)
- (9) Thrust bearing, Timken Type TS, for the 11 saltwater pump (PO# 685249, CID# 1469936-2, CG)
- (10) Pilot valve assembly kit for the 22 auxiliary feedwater flow control valve Bailey positioner (PO# 662513, CID# 1508881-2, CG)
- (11) Oil, Shell Rotella T4 Triple Protection SAE 15W-40, for the 1A1 Société Alsacienne de Constructions Mécaniques (SACM) emergency diesel generator lube oil system (PO# 812770, CID# 1475193-2, CG)
- (12) Fuel Oil, Grade 2-D, Ultra Low Sulfur, for the 1A1 SACM emergency diesel generator (PO# 806910, CID# 1701606-2, CG)

- (13) Line, shaft, for the 11 saltwater pump (PO# 815718, CID# 1512861-2, CG)
- (14) Bellows assembly, for Dresser 2-1/2 Inch Model 31739A for pressurizer safety relief valve 1RV-200 (PO# 436695, CID# 1513153-1, SR)
- (15) Connector, Terminal, 16-14 AWG, Number 6 stud, short ring tong standard, AMP Number 34120 for the 1A1 emergency diesel generator fuel oil rack positioner (PO# 602756, CID# 1471617-2, CG)

## **INSPECTION RESULTS**

No findings were identified.

## **EXIT MEETINGS AND DEBRIEFS**

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

- On June 9, 2023, the inspectors presented the commercial grade dedication inspection results to Patrick D. Navin, Site Vice President, and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.03	Corrective Action Documents	04343324	Corrective Action Program Evaluation Report for 22 Salt Water Pump Motor Seized on 5/14/2020	6/16/2020
		04479267	Corrective Action Program Evaluation Report for 1A EDG tripped due to Hi Crankcase Pressure on 2/19/2022	4/14/2022
	Corrective Action Documents Resulting from Inspection		04679282 04679888 04680203 04680204 04680313 04680394 04680401 04680642 04680747 04681289 04681561 04681567 04681717 04682778 04682781 04683043 04683260 04683266 04683277 04683396 04683478 04683495	
	Engineering Evaluations	Technical Evaluation 20077	Miscellaneous Commercial Grade Items – AFW CST Manual Valve ZS	2/27/2003
	Miscellaneous	EPRI 1008256	Plant Support Engineering: Guidelines for the Technical Evaluation of Replacement Items in Nuclear Power Plants	Revision 1
		EPRI NP-5652 and TR-102260	Plant Engineering: Guideline for the Acceptance of Commercial Grade Items in Nuclear Safety-Related Applications	Revision 1
		NUPIC Audit/Survey #20437	Cooper Bussman, Inc.	9/29/2009
		OSD&D 0134134	Incorrect Documentation	4/21/2023
	Procedures	CC-AA-102	Design Input and Configuration Change Impact Screening	Revision 34
		MA-AA-716-001	Quality Material Components Control and Identification	Revision 12
		MA-AA-716-011	Work Execution & Close Out	Revision 28
		NO-AA-10	Quality Assurance Topical Report	Revision 98
		OP-CA-103-102-100	Watch Standing Practices	Revision 3
		PES-S-002	Shelf-life	Revision 10
		PES-S-004	Sampling Plan	Revision 3
		PS-26	Technical Evaluations	Revision 7
		PS-34	Critical Characteristics	Revision 8
RM-AA-101-1008		Processing and Storage of Records	Revision 9	
SM-AA-101	Certification of Receipt Inspectors	Revision 8		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SM-AA-102	Warehouse Operations	Revision 15
		SM-AA-300	Procurement Engineering Support Activities	Revision 10
		SM-AA-300-1001	Procurement Engineering Process and Responsibilities	Revision 25
		SM-AA-3019	Parts Quality Initiative (PQI)	Revision 13
		WH-KR-021	Supply Knowledge Retention Document, Nuclear Warehouse Housekeeping and Storage Focus Area Standards	Revision 5
	Work Orders	C93827572	Change out engine oil and oil filters on 1A1 Engine	6/29/2022