VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 28, 2024

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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Docket No.: 50-338
License No.: NPF-4

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA)
NORTH ANNA POWER STATION UNIT 1
10 CFR 21 REPORT
1-BY-BC-1-IV BATTERY CHARGER

Virginia Electric and Power Company (Dominion Energy Virginia) hereby submits the enclosed updated written notification of the identification of a defect, in accordance with the requirements of 10 CFR 21.21(d)(3)(ii). This notification pertains to the 1-IV battery charger, 1-BY-BC-1-IV.

Should you have any questions regarding this submittal, please contact Mr. Marcus A. Hofmann at (540) 894-2100.

Very truly yours,

Lisa Hilbert
Site Vice President

Enclosure

Commitments contained in this letter: None

cc:
L. Dudes – NRC Region II
G. Miller – NRC Project Mgr.
NRC Resident Inspector

10 CFR 21 Report

1-BY-BC-1-IV Battery Charger

Dominion Energy Virginia
North Anna Power Station Unit 1

10 CFR 21 REPORT

1-BY-BC-1-IV Battery Charger

1. Name and address of the individual or individuals informing the Commission.

James Holloway
Vice President, Nuclear Engineering & Fleet Support
Dominion Energy
5000 Dominion Blvd
Glen Allen, VA 23060

2. Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which contains a defect or noncompliance.

North Anna Power Station
Docket No. 50-338
License No. NPF-4
Basic Component: 1-BY-BC-1-IV Battery Charger

3. Identification of the firm constructing the facility or supplying the basic component which contains a defect or noncompliance.

Ametek Solidstate Controls
875 Dearborn Drive
Columbus, OH 43085

4. Nature of the defect or noncompliance and the safety hazard which is created or could be created by such defect or noncompliance.

On 7/29/2024 at 2143 hours, Safeguards operator on rounds discovered AC Input voltmeter on 1-BY-BC-1-IV battery charger reading approximately 250VAC, expected approximately 480VAC, with voltmeter selected to B-C phases. A-B phase reads approximately 480VAC as expected, A-C phases reads 250 VAC. All normal log readings SAT, PCS trend for battery output normal and steady at 133.9 VDC (reference CR1265323). The 1-IV DC electrical power subsystem was declared inoperable, and the 2 hour Limiting Action of TS 3.8.4 Condition 'A' was entered. 1-BY-BC-1C-II swing charger was placed in service on the 1-IV DC bus.

Troubleshooting performed by Electrical Maintenance determined the normal AC supply molded case switch (Eaton J250K) to be the cause of degraded AC input voltage. Additional investigation found loose terminal connection screw on "C" phase load side of the switch contacts; this condition resulted in a poor connection of the switch contact. The poor connection of the switch contacts caused open phase condition on "C" phase,

hence, degraded AC input voltage on "C" phase of 1-IV battery charger. It should be noted that switch was supplied and installed at the battery vendor (Ametek) and not manipulated by Dominion during receipt inspection or installation.

5. The date on which the information of such defect or noncompliance was obtained.

August 27, 2024

6. In the case of a basic component which contains a defect or noncompliance, the number and location of all such components in use at, supplied for, or being supplied for or may be supplied for one or more facilities or activities subject to the regulations in this part.

North Anna identified one (1) AC supply molded case switch effected by this condition out of a total of twenty-four (24) molded case switches installed in twelve (12) battery charger locations.

Affected components supplied to other licensees is not known to North Anna.

7. The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

The affected AC supply molded case switch was replaced with a similar Eaton J250K.

Work orders have been created to perform an inspection of the AC supply molded case switch for all other batteries.

8. Any advice related to the defect or noncompliance about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None.

9. In the case of an early site permit, the entities to whom the early site permit was transferred.

Not applicable, does not involve an early site permit.