

Dominion Energy South Carolina
V. C. Summer Nuclear Station
Bradham Boulevard & Highway 215, Jenkinsville, SC 29065
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July 31, 2023

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U.S. Nuclear Regulatory Commission
Washington, DC 20555

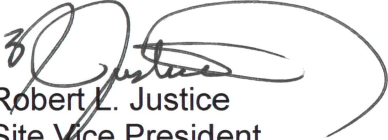
Serial No. 23-202
VCS-LIC/JB R0
Docket No. 50-395
License No. NPF-12

DOMINION ENERGY SOUTH CAROLINA (DESC)
VIRGIL C. SUMMER NUCLEAR STATION (VCSNS) UNIT 1
10 CFR 21 REPORT
EMERGENCY FEEDWATER CHECK VALVE SOCKET HEAD CAPSCREW

Dominion Energy South Carolina 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 socket head capscrew used in the safety-related check valves in the emergency feedwater system at VCSNS.

Should you have any questions, please call Mr. Michael Moore at (803) 345-4752.

Sincerely,



Robert L. Justice
Site Vice President
V.C. Summer Nuclear Station

Enclosure

Commitments contained in this letter: None

cc:
G. J. Lindamood – Santee Cooper
L. Dudes – NRC Region II
G. Miller – NRC Project Mgr.
NRC Resident Inspector
J. N. Bassett – INPO
Marsh USA, Inc.

10 CFR 21 Report

Emergency Feedwater Check Valve Socket Head Capscrew

10 CFR 21 REPORT

Emergency Feedwater Check Valve Socket Head Capscrew

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

Robert L. Justice
Site Vice President
V.C. Summer Nuclear Station
Mail Code 800
PO Box 88
Jenkinsville, SC 29065

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.

V.C. Summer Nuclear Station
Docket No. 50-395
License No. NPF-12
Basic Component: Steam Generator emergency feedwater header discharge isolation check valves.

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

Flowserve Corporation
Raleigh Operations
PO Box 1961
1900 South Saunders Street
Raleigh, NC 27603

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

The ¼" Socket Head Capscrew (Part No. 48 in the valve drawing) installed to each of the supplied check valves was shorter than the required 1.25" length. The capscrew connects the Cylinder Rod Extension to the Hinge Shaft Actuator Arm. The shortened capscrew limited the thread engagement with the Cylinder Rod Extension to approximately two to three threads and had the risk of coming loose and falling out. Loss of the capscrew could potentially create binding to prevent the valve from opening and closing, which in turn limits the emergency feedwater flow to all three steam generators when needed. This condition also has the potential to affect the isolation function of the check valve.

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

May 11, 2023

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.

Three check valves containing the defect (shortened capscrews) were supplied to V.C. Summer under Purchase Order 4500653391 to replace the previous valves XVC01009A-EF, XVC01009B-EF and XVC01009C-EF in the Emergency Feedwater System. These check valves were modified from previous design specifically for V.C. Summer.

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 shortened capscrews were removed from the check valves and replaced with capscrews of the proper length prior to being placed in service. The proper length capscrews were installed by Mechanical Maintenance personnel under Work Orders 88201696477, 88201696478, and 88201696479.

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. The affected check valves were supplied for use at V.C. Summer only.

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.