



Jeremy S. Hauger
Columbia Generating Station
P.O. Box 968, MD PE30
Richland, WA 99352-0968
Ph. 509-377-8727
jshauger@energy-northwest.com

July 17, 2025

GO2-25-094

10 CFR 21.21(d)(3)(ii)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
UPDATED REPORT OF A DEVIATION ASSOCIATED WITH O-RINGS
FOR SOLENOID VALVES PURSUANT TO 10 CFR 21.21(d)(3)(ii)**

References: 1. Interim Report of the Evaluation of a Deviation Pursuant to 10 CFR
21.21(a)(2), dated November 21, 2024 (ML24326A362)
2. Event Notification Number 57785, dated June 26, 2025
(ML25178A801)

Dear Sir or Madam:

In accordance with 10 CFR 21.21(d)(3)(ii), attached is the required 30 day written notification of the identification of a defect of the Valcor V70900-45 solenoid valves with substitute EM163-80 EPDM O-ring material. This information was initially reported in an interim report to the Nuclear Regulatory Commission (NRC) on November 21, 2024 (Reference 1), and subsequently as Event Report 57785 on June 26, 2025 (Reference 2).

There are no commitments being made to the NRC by this letter.

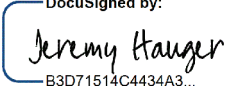
If you have any questions or require additional information, please contact Mr. Z. K. Dunham, Regulatory Affairs Manager, at (509) 377-4735.

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Executed on this 17th day of July, 2025.

Respectfully,

DocuSigned by:

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Jeremy S. Hauger

Vice President, Engineering

Attachment: Information Required by 10 CFR 21.21(d)(4)

cc: NRC Region IV Regional Admin
NRC Region IV Project Manager
NRC Senior Resident Inspector/988C
C.D. Sonoda – BPA/1399

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Attachment

Information Required by 10 CFR 21.21(d)(4)
2 Pages Follow

Information Required by 10 CFR 21.21(d)(4)

(i) Name and address of the individual or individuals informing the Commission.

Mr. Jeremy Hauger
Columbia Generating Station – Vice President, Engineering
P. O. Box 968, PE30
Richland, WA 99352-0968

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Valcor replacement V70900-45 solenoid valve with substitute EM163-80 EPDM O-ring material installed at:

Columbia Generating Station, Unit 2
76 N Power Plant Loop, Richland, WA 99354

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Valcor Engineering Corporation
2 Lawrence Road
Springfield, NJ 07081

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

Valcor supplied replacement V70900-45 solenoid valves with substitute EM163-80 EPDM O-ring material (due to the obsolescence of the original E0515-80 material) and certified to the original qualification test report based on Delta Qualification report QRSKC26022-1. A replacement solenoid valve was installed at Columbia Generating Station (CGS) in July 2024 as Control Rod Drive Scram Discharge Volume Solenoid Drain Valve. On September 26, 2024, CGS identified this change in material and the issue was entered into the corrective action program. Columbia's review of the Delta Qualification report identified the justification of the thermal life of the new O-ring compound when used in normally energized valves such as those supplied to CGS was not adequate. This issue was communicated to the NRC with an interim Part 21 notification on November 21, 2024.

Valcor's report of additional testing to attempt to justify the new O-ring material as equal to or better than the original material was dated February 24, 2025. Columbia concluded the justification was inadequate and submitted to a third party for evaluation. Event notification 57785 indicated the report was submitted to CGS on February 24, 2025, however it was not received until March 6, 2025.

On June 23, 2025, CGS received a third-party Evaluation Report of the Valcor O-ring substitution for V70900-45 solenoid valves. This review of the supplier qualification reports determined that the reports did not establish that the new compound O-rings are equivalent to the original compound O-rings. The determination of a defect was entered into the corrective action program on June 24, 2025.

This defect could create a substantial safety hazard defined by a major degradation (a deviation that could cause a redundant basic component to fail, such that it could not perform its safety function).

(v) The date on which the information of such defect or failure to comply was obtained.

June 23, 2025

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

One replacement solenoid valve was installed at CGS in July 2024 as a Control Rod Drive Scram Discharge Volume Solenoid Drain Valve.

(vii) 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 preventative maintenance frequency of the Control Rod Drive Scram Discharge Volume Solenoid Drain Valve has been revised to 2 years plus 20% grace to align with the maximum thermal qualified life of the component.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

This was identified as an industry issue and shared with all Nuclear Utility Procurement Issue Corporation users of Valcor. The issue will also be shared with the Nuclear Utility Group on Equipment Qualification user group.