

March 22, 2007 GO2-07-052 P.O. Box 968 • Richland, WA • 99352-0968

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

Subject:

COLUMBIA GENERATING STATION, DOCKET NO. 50-397
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
REGARDING THE THIRD TEN-YEAR INTERVAL INSERVICE TESTING

References: 1)

Letter dated, October 10, 2005, GO2-05-166, WS Oxenford (Energy Northwest) to NRC, "Submittal of the Third Ten-Year Interval Pump and Valve Inservice Testing (IST) Program Plan"

2) Letter dated, February 22, 2007, GO2-07-035, WS Oxenford (Energy Northwest) to NRC, "Response to Request for Additional Information Regarding the Third Ten-Year Interval Pump and Valve Inservice Testing (IST) Program Plan"

Dear Sir or Madam:

Transmitted herewith in Attachment 1 is the Energy Northwest response to a Request for Additional Information. This response provides the additional information as discussed with the Staff in a teleconference on March 7, 2007. As noted in Attachment 1, Energy Northwest hereby withdraws requests RP-02 and RP-08. There are no new commitments contained in this response.

PROGRAM AT COLUMBIA GENERATING STATION

If you have any questions or require additional information, please contact GV Cullen at (509) 377-6105.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the date of this letter.

Respectfully

WS Oxenford (Mail Drop PE04)
Vice President, Technical Services

Attachments:

1) Response to Request for Additional Information

2) Revised Request RV-01

cc: BS Mallett – NRC RIV

CF Lyon – NRC NRR

NRC Senior Resident Inspector/988C

WA Horin – Winston & Strawn RN Sherman – BPA/1399

A047

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# Response to Request for Additional Information

### Item 1

In Revision 1 of Relief Request RV01, the licensee changed the basis for the relief to "the alternative provides an acceptable level of quality and safety," while in the original relief request, the basis was impracticality. Please explain the reason for the change. The technical specification addresses system operability while inservice testing deals with component operability and sometimes system operability as well. The technical requirements may satisfy system operability but not necessarily component operability.

### Response

The components identified in Relief Request RV-01 consist of two independent testable check valves in series and cannot be tested individually as described in Subsection ISTC-3630. Therefore, leak testing in accordance with the Code is impractical. Relief Request RV-01 has been revised to state the basis for the relief is impracticality as indicated in Attachment 2.

Request RV-01 has also been revised to request leak test substitutions approved by the Staff in an SER dated February 9, 2007 (referenced in attached revised relief request), to also apply to the testing specified in Paragraph ISTC-3630.

#### Item 2

For RP-02, you want to use Section 5.5.2 of NUREG-1482, which is applicable to positive displacement pumps. The pumps are vertical centrifugal pumps. The RAI response says that the methodology in the NUREG is germane to both types of pumps. Provide a different justification as to why the alternative testing is acceptable.

#### Response

The ASME Code components identified in Relief Request RP-02 (DO-P-1A, DO-P-1B, and DO-P-2) qualify for classification as "skid mounted pumps" as defined in ISTA-2000 and therefore exclusion from subsection ISTB pursuant to ISTB-1200. As such, Energy Northwest hereby withdraws Relief Request RP-02 from its third ten-year interval IST program.

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# Item 3

In RP-08, you want to increase the upper limit of the acceptable range from 1.03 to 1.10.

# Response

The ASME Code components identified in Relief Request RP-08 (DO-P-1A, DO-P-1B, and DO-P-2) qualify for classification as "skid mounted pumps" as defined in ISTA-2000 and therefore exclusion from subsection ISTB pursuant to ISTB-1200. As such, Energy Northwest hereby withdraws Relief Request RP-08 from its third ten-year interval IST program.

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# **Revised Request RV-01**

Relief Request -- RV01
Revision 1

# Relief Request in Accordance with 10CFR 50.55a(f)(5)(iii)

-- Inservice Testing Impracticality --

# **ASME Code Components Affected**

| Affected<br>Valves                                 | Class | Cat. | Function   | System(s)                                   |
|--|-------|------|--|---|
| CVB-V-1AB,<br>CD, EF, GH,<br>JK, LM, NP,<br>QR, ST |       | AC   | To break vacuum on the drywell to suppression chamber downcomers and to limit steam leakage from the downcomer to the wetwell gas space. | Primary<br>Containment<br>Cooling and Purge |

# **Applicable Code Edition and Addenda**

The 2001 Edition and the 2002 and 2003 Addenda of the ASME OM Code.

# **Applicable Code Requirement**

OM Subsection ISTC-3630, Leakage Rate for Other Than Containment Isolation Valves.

# **Impracticality of Compliance**

These check valves cannot be tested individually therefore, assigning a limiting leakage rate for each valve or valve combination is not practical.

#### **Burden Caused by Compliance**

Subsection ISTC-3630 requires Category A valves, other than containment isolation valves, to be individually leak tested. Each vacuum relief valve assembly consists of two independent testable check valves in series with no instrument located between them to allow testing of each of the two check valves. Therefore, leak testing in accordance with the Code is impractical. Modifications to allow individual testing of these valves would require a major system redesign and be burdensome.

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Relief Request -- RV01 (Contd.)

### Proposed Alternative and Basis for Use

These valves will be leak tested in accordance with Columbia Generating Station Technical Specifications SR 3.6.1.1.2, SR 3.6.1.1.3, and SR 3.6.1.1.4 during refueling outages.

Technical Specifications SR 3.6.1.1.2 drywell-to-suppression chamber bypass leakage test monitors the combined leakage of three types of pathways: (1) the drywell floor and downcomers, (2) piping externally connected to both the drywell and suppression chamber air space, and (3) the suppression chamber-to-drywell vacuum breakers. The test frequency is 120 months and 48 months following one test failure and 24 months if two consecutive tests fail until two consecutive tests are less than or equal to the bypass leakage limit.

Technical Specifications SR 3.6.1.1.3 establishes a leak rate test frequency of 24 months for each suppression chamber-to-drywell vacuum breaker pathway, except when the leakage test of SR 3.6.1.1.2 has been performed (Note to SR 3.6.1.1.3). Thus, each suppression chamber-to-drywell vacuum breaker pathway will have a leak test frequency of 24 months by either SR 3.6.1.1.2 or SR 3.6.1.1.3.

Technical Specifications SR 3.6.1.1.4 establishes a leakage test frequency of 24 months to determine the suppression chamber-to-drywell vacuum breaker total bypass leakage, except when the bypass leakage test of SR 3.6.1.1.2 has been performed (Note to SR 3.6.1.1.4). Thus, the determination of suppression chamber-to-drywell vacuum breaker total leakage will have a leak test frequency of 24 months by either SR 3.6.1.1.2 or SR 3.6.1.1.4.

These valves are also verified-closed by position indicators, exercised, and tested in the open direction using a torque wrench per Technical Specification SR 3.6.1.7.1, SR 3.6.1.7.2, and SR 3.6.1.7.3. In accordance with a separate commitment, the valves are visually inspected each refueling outage.

#### Quality/Safety Impact

The leakage criteria and corrective actions specified in the Columbia Generating Station Technical Specifications SR 3.6.1.1.2, <u>SR 3.6.1.1.3</u>; and <u>SR 3.6.1.1.4</u> combined with visual examination of valve seats every refuel outage provides adequate assurance of the relief valve assembly's ability to remain leak tight and to prevent a suppression pool bypass. Thus, proposed alternative provides adequate assurance of material quality and public safety.

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# **Duration of Proposed Alternative**

Third 10 year interval.

# **Precedents**

This relief request was granted for the previous 10 year interval.

SER letter dated November 27, 1995 (TAC No. M91159), Relief Request No. RV01.

# References

Letter dated February 9, 2007, Carl F. Lyon (NRC) to J. V. Parish (Energy Northwest), "Columbia Generating Station - Issuance of Amendment RE: Suppression Chamber-to-Drywell Vacuum Breakers and Drywell-to-Suppression Chamber Bypass Leakage Test (TAC No. MD1225)"