

July 11, 2006

Mr. J. V. Parrish  
Chief Executive Officer  
Energy Northwest  
P.O. Box 968 (Mail Drop 1023)  
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION - REQUEST FOR ADDITIONAL  
INFORMATION (TAC NO. MC4570)

Dear Mr. Parrish:

By letter dated September 30, 2004, Energy Northwest submitted a request for a license amendment to Facility Operating License No. NPF-21 to reflect the application of the Alternate Source Term for Columbia Generating Station. The Nuclear Regulatory Commission (NRC) staff has performed a review of the amendment request and finds that it needs additional information to complete its review.

Therefore, it is requested that you respond to the enclosed request for additional information by July 30, 2006, for the NRC staff to expedite its review. The enclosed questions are unchanged, except for administrative changes, from those sent by e-mail to a member of your staff on June 29, 2006.

Sincerely,

**/RA/**

Brian Benney, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure: Request for Additional Information

cc w/encl: See next page

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**ADAMS ACCESSION NO: ML061880531**

**NRR-106**

OFFICE	LPL4/PM	LPL4/LA	LPL4/BC
NAME	BBenney	LFeizollahi	DTerao
DATE	7/11/06	7/10/06	7/11/06

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REQUEST FOR ADDITIONAL INFORMATION (RAI)

COLUMBIA GENERATING STATION

ALTERNATIVE SOURCE TERM

(TAC NO. MC4570)

In order to complete its review, the Nuclear Regulatory Commission (NRC) staff needs additional information on the proposed changes to the secondary containment and standby gas treatment system (SGT)

Proposed Changes

Technical Specification (TS) 3.6.4.1, "Secondary Containment"

1. Revised Surveillance Requirement (SR) 3.6.4.1.1 to change the minimum required containment vacuum from greater than or equal to 0.25 inch of vacuum water gauge (wg) to greater than 0.0 inch of vacuum wg.
2. Deleted SR 3.6.4.1.4.
3. Revised the existing SR 3.6.4.1.5 to change the maximum allowed standby gas treatment subsystem flow rate from less than or equal to 2240 cubic feet per minute (cfm) to a secondary containment inleakage flow rate of less than or equal to 2430 cfm.
4. Due to the deletion of SR 3.6.4.1.4, SR 3.6.4.1.5 is renumbered as SR 3.6.4.1.4.

TS 3.6.4.3, "Standby Gas Treatment System"

5. Revised SR 3.6.4.3.3 to add the phrase "and reaches greater than or equal to 4800 cfm within 2 minutes."

NRC Staff RAIs

1. The current TSs require the secondary containment to be maintained at negative 0.25 inches wg during normal operation. The daily surveillance on this requirement assures that the building integrity is being monitored and maintained during the 24-month interval between draw down testing. If the TSs were changed to allow less than or equal to 0.0 wg pressure normally (change No. 1 above), the building would potentially breathe as external pressures changed and integrity could degrade and be undetected. What assurance would this test or any other test provide that secondary containment integrity capability is being maintained?

Also, with the secondary containment being maintained at a negative pressure, the release to the environment is from a single point that is monitored for release. If the secondary containment is allowed to breathe with external pressure changes, how would Columbia meet General Design Criteria (GDC) 64 or its equivalent for monitoring releases?

2. Deleting SR 3.6.4.1.4 (change No. 2) deletes the requirement to measure the time it takes to achieve a secondary containment negative pressure of negative 0.25 inches wg. Section 50.36 of Title 10 of the *Code of Federal Regulations* (10 CFR), Criterion 2, requires a limiting condition for operation (LCO) for a process variable, design feature, or operating restriction that is an initial condition of a design-basis accident. The time at which secondary containment is established is directly input into the loss-of-coolant accident design-basis analysis as the point at which secondary containment and the SGT can be credited. The LCO is relieved by meeting the SR that measures the time at which draw down is achieved as stated in the TS. Please clarify how the requirements of 10 CFR 50.36 are satisfied with respect to removing this SR.
3. SR 3.6.4.1.5 verifies the SGT ability to maintain the negative 0.25 inch wg pressure in the secondary containment for a period of 1 hour. The change increases the flow rate from a maximum of 2240 cfm to a maximum of 2430 cfm, and labels this flow as an "inleakage" flow. Please clarify how inleakage flow is measured or provide a basis for labeling it inleakage flow in lieu of the measured quantity which appears to be SGT subsystem flow. Please clarify if the reason to increase this maximum flow results from greater secondary containment inleakage, and identify any steps being taken to control the degradation of secondary containment integrity.
4. No question on change No. 4. It is editorial.
5. SR 3.6.4.3.3 verifies the ability of each subsystem to start. The proposed additional requirement of achieving 4800 cfm in 2 minutes is more restrictive and conservative. The NRC staff is concerned that Columbia is trying to relate the initial subsystem flow rate (4800 cfm in 2 minutes) to the time it takes to achieve draw down of the secondary containment to the negative 0.25 inches wg. Subsystem flow rate is not related to secondary containment integrity except in the sense that if there was more inleakage such as a door being open, there would be less pressure drop on the subsystem and a corresponding increase in flow. Please clarify if Columbia is requesting that an SR on SGT subsystem flow combined with a Gothic analysis be substituted for measuring the draw down time directly, and explain how this would identify changes in building leakage and other parameters used in the analysis over the time interval between tests (24 months).

## Columbia Generating Station

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November 2005