UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 23, 2009

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 RE: LICENSE AMENDMENT REQUEST FOR CHANGES TO TECHNICAL SPECIFICATIONS RELATING TO DIESEL GENERATOR FUEL OIL STORAGE AND TESTING (TAC NO. ME2121)

Dear Mr. Parrish:

By application dated August 17, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092380153), Energy Northwest (the licensee) requested U.S. Nuclear Regulatory Commission (NRC) staff approval of a license amendment request for the Columbia Generating Station. The proposed amendment would modify the plant technical specifications for diesel generator fuel oil storage and testing.

The NRC staff reviewed the information provided in your application and determined that additional information is needed in order to complete its review. In order for the staff to complete its review in a timely manner, we request that you submit your response to the enclosed request for additional information no later than January 22, 2010.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1115 or via e-mail at nicholas.difrancesco@nrc.gov.

Sincerely,

Nicholas J. DiFrancesco, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure:
As stated

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

DIESEL GENERATOR FUEL OIL STORAGE AND TESTING

COLUMBIA GENERATING STATION

DOCKET NO. 50-397

By application dated August 17, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092380153), Energy Northwest (the licensee) requested U.S. Nuclear Regulatory Commission (NRC) staff approval of a license amendment request for the Columbia Generating Station (CGS). The proposed amendment would modify the plant technical specifications (TS) for diesel generator (DG) fuel oil storage and testing.

The NRC staff reviewed the information provided in your application and determined that additional information is needed in order to complete its review. In order for the staff to complete its review in a timely manner, we request that you submit your response to the request for additional information provided below no later than January 22, 2010.

1. On pages 4-5 of 16 of the Enclosure to the licensee's letter dated August 17, 2009, it is stated:

> The lube oil level equivalent to a 7 day supply is 330 gallons for Division 1 or 2 DG, and 165 gallons for Division 3 DG.

Please confirm that these 7-day supplies are for lube oil that the emergency DG manufacturer has confirmed is compatible with Ultra-Low-Sulfur Diesel Fuel (ULSD) fuel, and that these quantities are derived from consumption rates applicable to the DG operating with ULSD fuel.

2. On page 8 of 16 of the Enclosure to the licensee's letter dated August 17, 2009, it is stated:

> Following the calculation method outlined in Reference 4, utilizing actual consumption rates determined by testing...

Please explain if these consumption rates are determined by testing with ULSD fuel. If not, please explain why these rates are conservative compared to testing with ULSD fuel.

3. On page 10 of 16 of the Enclosure to the licensee's letter dated August 17, 2009, it is stated:

> Energy Northwest currently allows a range of API [American Petroleum Institute] Gravity values at 60°F [degrees Fahrenheit] of greater than 27 degrees but less than or equal to 38 degrees.

Please explain what may happen if the licensee receives a shipment of fuel oil that has an API Gravity of greater than 38 degrees.

4. On page 11 of 16 of the Enclosure to the licensee's letter dated August 17, 2009, it is stated:

> The corresponding updated ANSI [American National Standards Institute] standard, ANS [American Nuclear Society]/ANSI-59.51-1997 ["Fuel Oil Systems for Safety-Related Emergency Diesel Generators"], Section 5.51, "Tanks," contains the same requirements while providing more specific details as regards to the tank capacity being sufficient to maintain at least 60 minutes of operation after reaching the low level alarm setpoint (at 110% percent of continuous rated load) based on the minimum quality fuel oil that is acceptable.

In the next paragraph it is stated:

> From the above it can be ascertained that the [principal] safety concern with the volume of stored diesel fuel oil in the day tank is that there is an equivalent supply of fuel oil in the day tank is that there is an equivalent supply of fuel to support one hour of operation at 110% of full load.

The staff's view is that the minimum day tank capacity is an amount of fuel oil to support 60 minutes of operation at 100 percent continuous rated load plus a minimum additional margin of 10 percent. Please explain how a supply of fuel to support 1 hour of operation at 110 percent of full load is conservative as compared to the staff's view.

5. On page 15 of 16 of the Enclosure to the licensee's letter dated August 17, 2009, Reference 6 is listed as ASTM [American Society for Testing and Materials] D975-08, "Standard Specification for Diesel Fuel Oils." Please explain why ASTM D975-08a is not used as the reference.

6. ASTM D975-08a allows fuel oil to contain up to 5 percent biodiesel. Please explain how your fuel oil calculation will be affected if your fuel oil contains 5 percent biodiesel.

7. Please confirm that the volumes shown in Attachment 3 to the Enclosure of the licensee's letter dated August 17, 2009, Table B 3.8.3-1, "Minimum Required DG Fuel Oil Supply," include an unusable volume for vortex prevention and for water and sediment at the tank bottoms.

8. Section 5.4 of ANSI/ANS-59.51-1997 states that the usable fuel oil storage requirements calculation shall include an explicit allowance for fuel consumption required by periodic testing. Please discuss how this allowance is incorporated into your 7-day fuel oil quantities.

9. Provide a summary of the analyses that shows how the proposed fuel oil volumes in Table B 3.8.3-1 were determined.

10. The licensee is proposing to change the word "tank" to "subsystem" in TS Surveillance Requirement 3.8.3.1. According to the definition in ANSI N195-1976, "Fuel Oil Systems for Standby Diesel-Generators," the term "tank" includes day tank and storage tank. The licensee stated on page 3 of 16 of the Enclosure to its letter dated August 17, 2009, that Technical Specification Task Force (TSTF)-501, Revision 0, "Relocate Stored Fuel Oil and Lube Oil Values to Licensee Control," only addressed the diesel storage tank volume whereas the CGS design utilizes both diesel storage tank as well as the excess volume available in the day tank. The NRC staff found that TSTF-501 also used the term "tank" for day tank and storage tank as addressed in the TSTF-501 Bases. The staff requests the licensee to provide justification for deviating from the standard term "tank" as used in ANSI N195-1976 and TSTF-501 and confirm that this change would not result in a non-conservative fuel oil storage volume.

December 23, 2009

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Chief Executive Officer
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Sincerely,
/RA/

Nicholas J. DiFrancesco, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure:
As stated

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ADAMS Accession No. ML093500261 ***RAI memo dated**

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	DCI/CPTB/BC (A)	DE/EEEB/BC	NRR/LPL4/BC	NRR/LPL4/PM
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DATE	12/10/09	12/17/09	11/4/09	12/9/09	12/23/09	12/23/09

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