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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION,
COLUMBIA MUR LAR: FIRE PROTECTION**

- References:
1. Letter GO2-16-096 from A. L. Javorik (Energy Northwest) to NRC:
"License Amendment Request to Revise Operating License and Technical Specifications for Measurement Uncertainty Recapture (MUR) Power Uprate," dated June 28, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16183A365)
 2. Letter GO2-16-124 from A. L. Javorik (Energy Northwest) to NRC:
"Response to License Amendment Request - Opportunity to Supplement," dated August 18, 2016 (ADAMS ML16231A511)
 3. E-mail from M. Watford (NRC) to R. M. Garcia (Energy Northwest)
"Request for Additional Information, Columbia MUR LAR: Fire Protection," dated October 27, 2016 (CAC No. MF8060)

Dear Sir or Madam:

By Reference 1, Energy Northwest submitted a license amendment for Columbia Generating Station (Columbia) to recapture certain measurement uncertainty as a power uprate. By Reference 2, Energy Northwest supplemented the original request. In Reference 3, the NRC requested additional information related to the fire protection system at Columbia. The enclosure to this letter contains the information requested in Reference 3.

No new commitments are being made by this letter or the enclosure. If you have any questions or require additional information, please contact Mr. R. M. Garcia at (509) 377-8463.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 10th day of November, 2016.

Respectfully,

A handwritten signature in black ink, appearing to read 'A. L. Javorik', with a long horizontal flourish extending to the right.

A. L. Javorik
Vice President, Engineering

Enclosure: As stated

cc: NRC RIV Regional Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C

CD Sonoda – BPA/1399 (email)
WA Horin – Winston & Strawn

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION: FIRE PROTECTION

NRC FIRE PROTECTION RAI - 1:

The staff notes that Enclosure 9, of the licensee's amendment dated June 28, 2016, Agencywide Documents Access and Management, Accession ML No. 16183A365, General Electric Hitachi Report NEDO-33853, "Safety Analysis Report for Columbia Generating Station Thermal Power Optimization," Revision 0, Section 6.7, "Fire Protection," states that "...There is no change in the physical plant configuration and the potential for minor changes to combustible loading as result of TPO [Thermal Power Optimization] Uprate are addressed by controlled design changes procedures..."

The staff requests the licensee to summarize any changes to the combustible loading, however minor, and discuss the impact of these changes on the plant's compliance with the fire protection program licensing basis, Title 10 of the Code of Federal Regulations Part 50 (10 CFR 50.48), or applicable portions of 10 CFR 50, Appendix R.

ENERGY NORTHWEST RESPONSE TO FIRE PROTECTION RAI - 1:

By letter dated June 28, 2016, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16183A365) as supplemented by letter dated August 18, 2016 ADAMS Accession No. ML16231A511, Energy Northwest submitted a license amendment for Columbia Generating Station. The proposed amendment recaptures certain measurement uncertainties as part of a TPO uprate by revising the operating license and technical specifications. The amendment request involves setpoint and software changes only. No hardware changes are being made. Therefore, there will be no change to Columbia's combustible loading as a result of this request.

NRC FIRE PROTECTION RAI - 2:

Some plants credit aspects of their fire protection system for other than fire protection activities, e.g., utilizing the fire water pumps and water supply as backup cooling or inventory for non-primary reactor systems.

If the Columbia Generating Station credits its fire protection system in this way, the measurement uncertainty recapture power uprate license amendment request should identify the specific situations and discuss to what extent, if any, the MUR power uprate affects these "non-fire-protection" aspects of the plant fire protection system. If the Columbia Generating Station does not take such credit, the staff requests that the licensee verify this as well. The response should discuss how any non-fire suppression use of fire protection water will impact the ability to meet the fire protection system design demands.

ENERGY NORTHWEST RESPONSE TO FIRE PROTECTION RAI - 2:

The proposed amendment recaptures certain measurement uncertainties as part of a TPO uprate by revising the operating license and technical specifications. The amendment request involves setpoint and software changes only and has no impact on the ability of the fire protection (FP) to meet system demands nor does it affect the "non-fire-protection" aspects of the plant fire protection system. The FP water supply system interrelationships with other plant systems are discussed below:

1. The FP water supply system provides water for bearing lubrication to the plant service water (TSW) system during TSW pump startup and is isolated under normal operating conditions. The MUR power uprate project did not change how the FP system interfaces with the TSW system.
2. The FP water supply system can provide water to the control air system (CAS), service air system (SA) and cooling jacket water (CJW) system as an emergency source of cooling by using installed fire hose connections in the event that TSW is lost. The MUR power uprate project did not change how the FP system interfaces with the CAS, SA, or CJW systems.
3. The FP water supply system can provide water to the condensate (COND) system as an emergency source of core cooling by using installed fire hose connections in condensate booster pump A suction line in the event that all emergency core cooling systems (ECCS) pumps are lost. The MUR power uprate project did not change how the FP system interfaces with the COND system.
4. The FP water supply system can provide water to the spent fuel pool as an emergency makeup source in the event that demineralized water and standby service water are lost. A fire hose can be routed from a reactor building FP standpipe and provide makeup water to the spent fuel pool. The MUR power uprate project did not change how the FP system interfaces with the FPC system.
5. The FP water supply system can provide a source of water for the B.5.b response and is a non-credited source of water for the diverse and flexible mitigation (FLEX) strategies. However, these actions were developed to cope with beyond design basis events. The MUR power uprate project did not change these strategies.