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MAY 19 2015

10 CFR 50.90
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GO2-15-081

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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397 SUPPLEMENT TO EXIGENT LICENSE AMENDMENT REQUEST – EXTENSION OF IMPLEMENTATION PERIOD FOR AMENDMENT 232**

Reference: Letter, GO2-15-075 dated May 15, 2015, WG Hettel (Energy Northwest) to NRC, "Exigent License Amendment Request – Extension of Implementation Period for Amendment 232 Changing Technical Specification Table 3.3.1.1-1 Function 7 'Scram Discharge Volume Water Level – High'"

Dear Sir or Madam:

This letter provides supplemental information to support the referenced exigent license amendment request. Specifically, this letter provides an explanation of why the equipment test qualification delays were unforeseen.

As stated in the referenced letter, Energy Northwest encountered unforeseen difficulties and delays in qualifying the AMETEK trip units as discussed below. The trip units required commercial grade dedication by a qualified vendor in order to qualify the parts for safety related applications. As part of the dedication process, electromagnetic interference (EMI) and radiofrequency interference (RFI) testing meeting Regulatory Guide (RG) 1.180 was performed. Following dedication and qualification, the units were received onsite in March 2015.

When the units were received onsite, it was determined that the original trip units had been hardened against EMI/RFI by the Vendor by adding external line filters and an internal ground jumper. This required Energy Northwest to reflect the changes in the overall design of the wiring to the trip units. Energy Northwest's preparation planning included full mechanical and electrical mock up testing onsite to provide additional confirmation of the design adequacy. This testing commenced in early April. In the process of modifying the design for the wiring of the trip units and ensuring that the mock up testing matched the actual plant configuration, Energy Northwest determined that the trip units could not be used in the configuration specified by the Vendor. The internal jumper raised a concern of ground loops being introduced into the reactor protection system (RPS) signals. The introduced ground loops were determined to be unacceptable because the calculations require this signal to be very accurate in generating the scram, rod block, and "scram discharge instrument volume (SDIV) not drained" relay outputs, which span over most of the signal range.

Additionally, the method of wiring from the field to the trip units recommended by the Vendor to mitigate EMI/RFI could not be replicated in the actual plant configuration. There are two models of trip units utilized in the design. The ET-1214 provides the scram signal and the ET-1215 provides rod block and "SDIV not drained" signal. The most limiting configuration consists of an ET-1214 unit wired in series to an ET-1215 unit. The wiring mitigation methods specified by the Vendor to address EMI/RFI could not be utilized at Columbia because the same transmitter input signal is utilized for three different relay outputs (one on the ET-1214 and two on the ET-1215). This configuration reduces personnel dose during functional testing and calibration activities.

Based on these issues, in mid-April Energy Northwest requested the Vendor to requalify the units with the jumper removed and the units wired as they will be in the plant in the most bounding case as specified in RG 1.180. Unfortunately, the requested Vendor requalification (EMI/RFI testing) of the units was incomplete. Testing completed in early May revealed that the units could not pass the RS103 section of Reg Guide 1.180. As a result, Energy Northwest had to re-engineer the units. In early May, Energy Northwest identified modifications that should allow the trip units to meet the RG 1.180 requirements. These modifications consist of internally replacing an operational amplifier on the printed circuit board of the trip units and adding external ferrite beads. The Vendor must now dedicate and qualify the new components.

This letter and its enclosures contain no regulatory commitments. If there are any questions or if additional information is needed, please contact Ms. L. L. Williams, Licensing Supervisor, at 509-377-8148.

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

Executed on MAY 19, 2015

Respectfully,

W. G. Hettel
Vice President, Operations

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