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10 CFR 50.90  
10 CFR 50.91

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

**Subject: COLUMBIA GENERATING STATION, DOCKET NO. 50-397  
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:

Pursuant to 10 CFR 50.90, “Application for amendment of license or construction permit,” and 10 CFR 50.91(a)(6) (exigent requests) Energy Northwest is requesting exigent approval for a license amendment to extend the implementation period for License Amendment No. 232 to Renewed Facility Operating License No. NPF-21 for Columbia Generating Station (Columbia). License Amendment No. 232 was issued on March 27, 2015.

The need for the proposed change is based on unforeseen equipment test qualification delays associated with the replacement AMETEK trip units. As discussed with Nuclear Regulatory Commission (NRC) staff on May 8 and 11, 2015, an exigent license amendment request is needed to ensure compliance with operating license requirements. This request is purely administrative in nature, in that it will defer the implementation date of License Amendment No. 232 from the current refueling outage (R-22) to the following refueling outage (R-23), scheduled for spring 2017.

Attachment 1 contains an evaluation of the proposed changes.

Energy Northwest requests approval of the proposed amendment by June 13, 2015, to support the scheduled end date of the current refueling outage.

This letter and its enclosures contain no regulatory commitments.

Using the standards in 10 CFR 50.92, “Issuance of amendment,” Energy Northwest has concluded that the proposed change does not constitute a significant hazards consideration as described in the enclosed analysis performed in accordance with 10 CFR 50.91(a)(1).

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," Energy Northwest is notifying the State of Washington of this amendment request by transmitting a copy of this letter and its attachment to the designated state official.

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 15, 2015

Respectfully,



W. G. Hettel  
Vice President, Operations

Attachment: As stated

cc: NRC RIV Regional Administrator  
NRC NRR Project Manager  
NRC Senior Resident Inspector/988C  
CD Sonoda - BPA/1399 (email)  
JO Luce – ESFEC (email)  
RR Cowley – WDOH (email)

## Evaluation of Proposed Change

### **1.0 SUMMARY DESCRIPTION**

This evaluation supports an exigent license amendment request to extend the implementation period for License Amendment No. 232, Changing Technical Specification (TS) Table 3.3.1.1-1 Function 7 “Scram Discharge Volume Water Level – High,” (Reference 1) to ensure compliance with Renewed Facility Operating License No. NPF-22 for Columbia Generating Station (Columbia).

Energy Northwest proposes to extend the implementation period associated with License Amendment No. 232 from the currently approved “prior to restarting from refueling outage R-22, scheduled for spring 2015” to “prior to restarting from refueling outage R-23, scheduled for spring 2017.”

By letter dated March 27, 2015, the NRC issued License Amendment No. 232 for Columbia. The amendment revised TS Table 3.3.1.1-1, “Reactor Protection System Instrumentation,” Function 7.b to change the term “Float Switch” to “Transmitter/Level Switch” and add footnotes (d) and (e) to SR 3.3.1.1.10 for the new scram discharge volume instrumentation scheduled to be installed during the upcoming refueling outage. The amendment also approved administrative changes to Function 7.a to change the term “Transmitter/Trip Unit” to “Transmitter/Level Indicating Switch” and add Surveillance Requirement (SR) 3.3.1.1.1 to require performance of a channel check every 12 hours. This amendment was requested by Energy Northwest letter to NRC dated March 24, 2014 (Reference 2).

The amendment was effective as of the date of issuance and is required to be implemented prior to restarting from refueling outage R-22.

Energy Northwest has encountered unexpected difficulty and delays in qualifying the new scram discharge volume instrumentation electronic level switches (also referred to as trip units) to satisfy electromagnetic interference (EMI) and radio frequency interference (RFI) test requirements as part of the design change. This creates a potential challenge to nuclear safety as these interferences could affect the trip units – either causing or preventing a reactor scram. The design change is now to be implemented during the subsequent refueling outage (R-23), scheduled to begin during May 2017. As such, Energy Northwest requests to delay implementation of the amendment for one refueling outage.

The functional objective of the design change is to address issues with the existing scram discharge instrument volumes, level instruments and associated small bore, socket welded piping and valves, which are inherent crud traps that have resulted in elevated general area radiation levels and increased personnel dose exposure. Operation for an additional cycle with the existing instrumentation will have no impact on nuclear safety. Administrative controls will continue to be utilized to minimize radiation

dose to personnel. As such, Energy Northwest requests an extension for implementation of License Amendment No. 232 to prior to startup from the Columbia spring 2017 refueling outage R-23.

Exigent Circumstances:

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly. In this case, Energy Northwest cannot implement an amendment within the implementation date agreed upon, and therefore a new date must be agreed upon to avoid delaying startup from refueling outage R-22. Pursuant to 10 CFR 50.91(a)(6), Energy Northwest is requesting the proposed amendment on an exigent basis.

Under such circumstances, the Commission notifies the public in one of two ways:

- (A) Issue a Federal Register notice providing notice of an opportunity for hearing and allowing at least two weeks from the date of the notice for prior public comment; or
- (B) Use local media to provide reasonable notice to the public in the area surrounding a licensee's facility, consulting with the licensee on the proposed media release and on the geographical area of its coverage;

## **2.0 DETAILED DESCRIPTION**

In Reference 2, Energy Northwest requested revision of the specified function description and SRs in Table 3.3.1.1-1, "Reactor Protection System Instrumentation," Function 7, "Scram Discharge Volume Water Level – High." The proposed changes support a planned upgrade to Columbia's Reactor Protection System (RPS) Scram Discharge Volume (SDV) Water Level – High instrumentation. The instrument replacements are part of a larger plant modification to replace the two scram discharge instrument volume tanks with new stainless steel tanks and fittings that will reduce future crud accumulation and recurring radiation dose exposure to plant personnel.

The existing instrumentation for TS Table 3.3.1.1-1 Function 7.b are Magnetrol level switches. These switches are mechanical float-type switches. They will be replaced by Rosemount 3152N Level Transmitters and the AMETEK ET-1200 series non-indicating trip units.

Energy Northwest has encountered difficulties and delays in qualifying the AMETEK trip units to satisfy EMI/RFI test requirements. The trip units required commercial grade dedication by a qualified vendor in order to qualify the parts for safety related applications. Receipt of the parts from the vendor was significantly delayed, and did not

occur until early March 2015. As part of the dedication process, EMI/RFI testing (meeting Regulatory Guide 1.180) was performed. When qualification testing was completed, Energy Northwest was notified that modifications to the trip units had been made in order to obtain acceptable test results, requiring Energy Northwest to re-evaluate the suitability of the new instruments in our application including updating the design control documents to reflect the modified instruments.

In early April 2015, Energy Northwest completed mock-up testing onsite and determined that the modification and external wiring requirements for the trip units received from the vendor were incompatible with our application and thus would require requalification to match plant configuration. Removal of modifications and requalification of the trip units with wiring that represents the actual plant signals was required, and limited EMI/RFI testing by the vendor was conducted in late April and early May. This testing revealed that additional modifications were required in order to show acceptable resistance to EMI/RFI in configurations that match plant installation.

As a result, the trip units must be returned to the vendor for reconfiguration, dedication and requalification. Discussions with the vendor indicate that five weeks is required to complete these tasks on an expedited schedule; this will be followed by on-site acceptance testing by Energy Northwest resulting in an overall extension of the current outage duration of 14 days.

Based on the difficulties and delays with dedication and qualification experienced to date, Energy Northwest has elected to delay implementation of the proposed design change to the next refueling outage. Operation for an additional cycle with the existing configuration will have no impact on nuclear safety since existing instrument volumes and instrumentation maintain the required redundancy, diversity and capacity to ensure there is sufficient volume available to accommodate a reactor scram.

### **3.0 TECHNICAL EVALUATION**

The request for extending the implementation period is not a technical or safety issue. The proposed change is purely an administrative change. In issuing an amendment to an operating license, the NRC staff states when the amendment is effective and when the amendment must be implemented. These dates are given in Enclosure 1 of the amendment and are part of the operating license. As such, a change to the implementation date is a change to the operating license for the plant. Although there are no regulatory requirements on the implementation date specified in an amendment, the licensee is required by the operating license to fully implement the amendment by the date specified (i.e., by a date no later than that specified).

In addition, an evaluation of the impact of the delay on each change to TS Table 3.3.1.1-1 approved in Reference 1 is provided below:

- Revise the title of the Function 7.a instruments from “Transmitter/Trip Unit” to “Transmitter/Level Indicating Switch.”

Evaluation: The change in title is purely administrative. The proposed term more accurately describes the capability of the existing instrumentation to provide level indication. Since this is an administrative change, there is no impact by delaying implementation of License Amendment No. 232.

- Revise the title of the Function 7.b instruments from “Float Switch” to “Transmitter/Level Switch.”

Evaluation: The design change to physically replace the existing float switches is deferred to the next refueling outage. As such, the existing instruments will remain installed for an additional cycle. The existing float switches have acceptable performance; therefore, there is no impact by delaying implementation of License Amendment No. 232.

- Add SR 3.3.1.1.1 to Function 7.a to require performance of a channel check every 12 hours.

Evaluation: As stated in Reference 2, Energy Northwest’s procedures currently require performance of a channel check every 12 hours and require declaring the Limiting Condition for Operation (LCO) not met for a failure of the channel check. The lack of a SR for performing channel checks on the Function 7.a instruments is a legacy issue which is being managed in accordance with NRC guidance in Administrative Letter 98-10. Upon discovery of this condition, procedures were revised to require performance of the channel check and a corrective action was opened to add the requirement to the TS. Since the required channel checks are currently being performed and are controlled by procedure, there is no impact by delaying implementation of License Amendment No. 232.

- Add footnotes (d) and (e) to SR 3.3.1.1.10 for Function 7.b to reflect the requirements of TSTF-493, Revision 4, Option A.

Evaluation: This change was a result of the change in instrumentation proposed for Function 7.b. The existing float switches are excluded from the scope of TSTF-493 since they are mechanical devices. The existing instruments will remain installed for an additional cycle and there is no impact by delaying implementation of License Amendment No. 232.

## **4.0 REGULATORY EVALUATION**

### **4.1 Applicable Regulatory Requirements**

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met. Energy Northwest has determined that the proposed change does not require any exemptions or relief from regulatory requirements other than the license. The following applicable regulations and regulatory requirements were reviewed in making this determination: 10 CFR 50.90, 10 CFR 50.91, and 10 CFR 50.92. The existing plant design continues to comply with all regulatory requirements.

### **4.2 Precedent**

Three similarly related license amendments involving extensions to license amendment implementation due dates were approved and are summarized below:

1. Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 - Amendment Re: Revision to the Implementation Date for Cooldown Rates for Pressure-Temperature Limits (TAC NOS. MC2183 AND MC2184), dated April 4, 2004. The license amendment extended the implementation date of new cooldown rates for pressure-temperature (P-T) limits that were established for Amendment Nos. 261 and 238 for Calvert Cliffs, Unit Nos. 1 and 2, respectively, to July 1, 2004. Although the existing reactor pressure vessel P-T limit cooldown rates were non-conservative over the life of the units, they remained valid through the end of 2004 and there was no technical issue with implementing the Amendment Nos. 261 and 238 changes until after the 2004 outage. The NRC staff found the proposed delay of implementation acceptable. (ML040640795)
2. Joseph M. Farley Nuclear Plant - Issuance of Amendment Regarding Change of Implementation Date for Amendment No. 176 for Unit 2 (TAC NO. ME3445), dated May 10, 2010. The license amendment extended the implementation date for deletion of the reactor coolant pump breaker position reactor trip function from the TS one additional cycle due to unforeseen difficulties encountered with respect to delays in the receipt of design input from the original equipment manufacturer and the resulting impact on the schedule for implementing the modification during the originally scheduled refueling outage. The NRC staff did not identify a safety-related issue concerning the modification date extension. The NRC staff found that the primary and secondary features of the reactor protection system providing protection from partial or complete loss of flow that are relied upon in the safety analyses, remained in effect and the delay in implementation date acceptable. (ML101100668)
3. Limerick Generating Station, Unit 2 - Issuance of Exigent Amendment Re: Extend Implementation Period for Amendment No. 174 - Leak Detection System

Setpoint and Allowable Value Changes (TAC NO. MF5695) dated February 25, 2015. The license amendment extended the implementation date for changes to instrument setpoints and allowable values associated with the leak detection system due to unforeseen difficulties associated with calibration of a temperature indicating switch. The NRC staff found that the proposed extension of the implementation period was purely administrative in nature and that operation of the plant with the currently calibrated setpoints (i.e., setpoints prior to approval of Amendment No. 174) did not raise any safety concerns and was acceptable. (ML15049A084)

## **5.0 SIGNIFICANT HAZARDS CONSIDERATION**

Energy Northwest has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

- 1) Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed amendment implementation schedule extension is administrative in nature and does not require any physical plant modifications, physically affect any plant systems or components, or entail changes in plant operation. The amendment implementation schedule extension does not increase the probability or consequences of an accident previously evaluated in the Final Safety Analysis Report. The change in the implementation schedule of the scram discharge volume instrumentation float switches and Technical Specification changes will have no impact on the initiation or the consequences of any accidents previously evaluated. Technical Specification requirements that govern operability or routine testing of plant instruments are not assumed to be initiators of any analyzed event. The change in implementation schedule will not increase the consequences of an accident since the existing scram discharge volume instrumentation is in accordance with the plant's design and licensing bases. All acceptance criteria continue to be met. Therefore there is no significant increase in the probability or consequences of an accident previously evaluated.

- 2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously analyzed?

Response: No.

There are no postulated hazards, new or different, contained in this amendment. The proposed amendment implementation schedule extension is administrative in nature and does not require any physical plant modifications, physically affect any

plant systems or components, or entail changes in plant operation. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- 3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed amendment implementation schedule extension is administrative in nature and does not require any physical plant modifications, physically affect any plant systems or components, or entail changes in plant operation. The existing scram discharge volume instrumentation maintains the required redundancy, diversity and capability to ensure there is sufficient volume available to accommodate a reactor scram. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, Energy Northwest concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of “no significant hazards consideration” is justified.

## **6.0 CONCLUSIONS**

Based on the considerations discussed above: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the applicable regulations as identified herein, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

## **7.0 ENVIRONMENTAL CONSIDERATION**

Energy Northwest has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within Columbia's restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, Energy Northwest has evaluated the proposed change and has determined that the change does not involve, (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion in accordance with 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## **8.0 REFERENCES**

1. Columbia Generating Station - Issuance Of Amendment Re: License Amendment Request for Changing Technical Specification Table 3.3.1.1-1 Function 7, "Scram Discharge Volume Water Level - High" (TAC NO. MF3673) dated March 27, 2015 (ML15063A010)
2. Letter GO2-14-043 dated March 24, 2014, AL Javorik (Energy Northwest) to NRC, "License Amendment Request for Changing Technical Specification Table 3.3.1.1-1 Function 7, 'Scram Discharge Volume Water Level – High'" (ML14098A400)