

**From:** Lee, Samson  
**Sent:** Saturday, August 22, 2020 2:54 PM  
**To:** Wolfgramm, Desiree M.  
**Subject:** Columbia request for additional information: Exigent license amendment request to extend Technical Specification 3.8.7, "Distribution Systems – Operating," completion time (EPID: L-2020-LLA-0181)

By letter dated August 20, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession number ML20233A976), Energy Northwest (the licensee) requested a license amendment to revise the Columbia Generating Station Technical Specification (TS) 3.8.7, "Distribution Systems – Operating." This license amendment request (LAR) would add a one-time extension of the Completion Time (CT) of TS Action 3.8.7.A, from 8 hours to 16 hours, specifically associated with Division 2 Alternating Current (AC) electrical power distribution inoperability caused by inoperability of Division 2, 120/240V Power Panel E-PP-8AE during repairs on its supply transformer E-TR-8A/1. The NRC staff has reviewed the LAR and determined that additional information is required to complete the review. The NRC staff's requests for additional information (RAIs) are listed below. The staff may have additional RAIs. The staff held an RAI clarification call with Energy Northwest on August 22, 2020. The Energy Northwest staff requested, and NRC agreed, to a RAI response by August 23, 2020.

The NRC staff considers that timely responses to RAIs help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. Please note that if you do not respond to this request by the agreed-upon date or provide an acceptable alternate date, we may deny your application for amendment under the provisions of Title 10 of the Code of Federal Regulations, Section 2.108. If circumstances result in the need to revise the agreed upon response date, please contact me at (301) 415-3168 or via e-mail [Samson.Lee@nrc.gov](mailto:Samson.Lee@nrc.gov).

### **Applicable Regulatory Requirements**

The regulation in 10 CFR 50.36(c)(2)(i) states, in part that

Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

To issue the amendment, the NRC must find reasonable assurance that the continued operation during the 16-hour CT will not endanger the health and safety of the public.

Under 10 CFR 50.90, whenever a holder of a license wishes to amend the license, including technical specifications in the license, an application for amendment must be filed, fully describing the changes desired.

### **Requests for Additional Information (RAIs)**

#### **Electrical Engineering:**

##### **RAI # 1**

On Page 2 of Enclosure 1 of the LAR, the table for “AC Power Distribution Subsystems” shows the various safety-related buses and power panels for each division. For a better understanding of line-up of the distribution subsystems, please provide requisite single line drawing for each division showing the distribution transformer connections between various buses and panels listed in the table.

#### **RAI # 2**

In the LAR, under Reason of the Proposed Change, the licensee stated, “Plant operating experience with these particular transformers suggests a degrading electrolytic capacitor may be causing the voltage anomaly.”

Please explain your operating experience with other similar type of transformers. Also, provide details of other similar distribution transformers in each division such as: voltage and power ratings, any unique characteristic such as voltage regulating feature, make/model, and approximate month/year of installation.

#### **RAI # 3**

In the LAR, under Exigent Circumstances, the licensee stated, “Internal operating experience associated with a failure of this type of transformer in 2007 has shown that lightly loaded transformers of this type are susceptible to accelerated degradation.”

Please explain why a light load would degrade a transformer.

#### **RAI # 4**

In the LAR, under Reason of the Proposed Change, the licensee stated, “On August 7, 2020, Operations prepared and approved an ACMP [Adverse Condition Monitoring Plan] to expedite monitoring and planning of repair or replacement of the transformer.”

Please explain based on previous amendment issued on August 26, 2019, whether the licensee made repairs or replaced the similar transformer in Division 1. If it was replaced, provide details (such as make/model) of the replaced transformer as compared to transformer currently planned to be repaired or replaced. Please provide the basis why the replacement would not experience the same degradation.

#### **Risk Insights:**

#### **RAI # 5**

An August 15, 2019, LAR requested an extension to an allowable outage time (AOT) to replace failing transformer E-TR-7A/2 (feeds power panel E-PP-7AF) in Division 1. The August 20, 2020, LAR under review requests an extension to an AOT to replace E-TR-8A/1 (feeds power panel E-PP-8AE) in Division 2. The degradation and subsequent need to replace two transformers in this short time may indicate that there is a common degradation mechanism. If a common degradation mechanism is identified, any risk calculations from which risk insights used support changes to technical specifications are developed should include appropriate contributions from common cause failures (CCFs).

- (a) Please clarify if there is a potential common cause mechanism and identify the systems/sub-systems where the components that could be subjected to this mechanism are located.
- (b) Please summarize the impact this potential common cause mechanism has on the capability of the affected components to fail to successfully operate to prevent and/or mitigate transients.
- (c) Please evaluate and summarize the risk implications of this potential common cause mechanism causing the affected components to fail and the effects of those failures on risk associated with the requested extended AOT.

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