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GO2-16-057

10 CFR 50.90

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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397  
RESPONSE TO SECOND REQUEST FOR ADDITIONAL  
INFORMATION (RAI) RELATED TO AN AMENDMENT TO ADOPT  
TECHNICAL SPECIFICATION TASK FORCE (TSTF)-425, REVISION 3  
TO RELOCATE SPECIFIC SURVEILLANCE FREQUENCIES TO A  
LICENSEE CONTROLLED PROGRAM**

- References:
1. Letter, GO2-15-007, dated March 17, 2015, WG Hettel (Energy Northwest) to NRC, "License Amendment Request for Adoption of Technical Specification Task Force Traveler (TSTF)-425, Revision 3
  2. Email, dated August 12, 2015, Balwant Singal (NRC) to Lisa Williams (Energy Northwest), "Request for Additional Information – License Amendment Request for Adoption of TSTF-425, Revision [3], Columbia Generating Station – TAC No. MF6042"
  3. Letter, GO2-15-128, dated September 17, 2015, RE Schuetz (Energy Northwest) to NRC, "Response to Request for Additional Information on License Amendment Request for Adopt Technical Specification Task Force (TSTF)-425, Revision 3"
  4. Letter, GO2-15-145, dated October 29, 2015, RE Schuetz (Energy Northwest) to NRC, "Response to Request for Additional Information (RAI) 3 on License Amendment Request for Adoption of Technical Specification Task Force (TSTF)-425, Revision 3

5. Email, dated March 9, 2016, John Klos (NRC) to Lisa Williams (Energy Northwest), "Second Request for Additional Information (RAI) Related to an Amendment to Adopt Technical Specification Task Force (TSTF)-425, Revision 3 to Relocate Specific Surveillance Frequencies to a Licensee Controlled Program

Dear Sir or Madam:

By Reference 1, Energy Northwest submitted for approval the License Amendment Request (LAR) to adopt TSTF-425, Revision 3.

Via Reference 2, the Nuclear Regulatory Commission (NRC) submitted Requests for Additional Information (RAIs) related to the Energy Northwest's probabilistic risk assessment (PRA) model. Via References 3 and 4, Energy Northwest submitted responses to Reference 2.

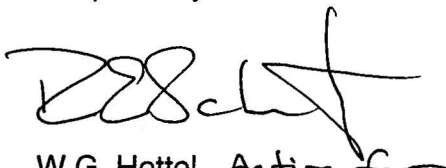
In response to Reference 5, Energy Northwest is submitting as Attachment 1, its response to the second RAI on the PRA model.

The No Significant Hazards Consideration determination (NSHCD) provided in the original submittal is not altered by this submittal. This letter and its attachment 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 this 6<sup>th</sup> day of April, 2016.

Respectfully,



W.G. Hettel Acting for  
Vice President, Operations

Attachments: As stated

cc: NRC Region IV Administrator  
NRC NRR Project Manager  
NRC Sr. Resident Inspector - 988C  
CD Sonoda - BPN1399 (email)  
WA Horin - Winston & Strawn  
RR Cowley -WDOH (email)  
EFSECutc.wa.gov-- EFSEC (email)

## **RESPONSE TO SECOND REQUEST FOR ADDITIONAL INFORMATION**

### **NRC Request PRA RAI 1.1 (Follow up to PRA RAI 1)**

In response to PRA RAI 1, the licensee provided the internal events PRA 2009 peer review facts and observations (F&Os), self-assessment findings, and their dispositions. Please address the following regarding F&O 1-3.

- a. The peer review F&O 1-3 states “In almost all of the post-initiator Human Error Probabilities (HEPs) where optimal stress is assumed, time is a factor with core damage occurring between 30 minutes and an hours.”

Clarify if these post-initiator HEPs were assumed to be optimal stress in all cases involving this time frame or if such HEPs were determined on a case-by-case basis to represent optimal stress or high stress as appropriate. Please describe your process to make this determination.

- b. The peer review also observed, “A second set of justification was provided, with discussion that basically justified moderate or low stress would be appropriate, given enough training for the operators.” The peer review recommendation stated: “Apply high stress factors per Table 17-1 of NUREG/CR-1278 to HEPs where time pressure is present during an accident situation.”

Please clarify if high stress factors were used on a case-by-case basis from this table, and, if not provide justification. Please discuss whether time pressure was used to determine whether an execution operator action justified the application of a high stress factor.

### **Energy Northwest Response:**

As part of the Rev. 7.2 PRA update performed in 2014, the assignments of stress levels were reviewed for all Columbia Generating Station (CGS) post-initiator human failure events, and all post-initiator human failure events now utilize the stress levels recommended by the Human Reliability Analysis (HRA) Calculator. The stress level recommended by the HRA calculator was reviewed by the HRA analyst and in some cases increased to a higher stress level. In this manner, the full intent of F&O 1-3 has been resolved.

By utilizing the HRA Calculator, the stress levels assigned to the CGS HFES follow the NUREG/CR-1278 guidelines, including addressing the impact to stress levels from time pressure.

### **NRC Request PRA RAI 4.1 (Follow up to PRA RAI 4)**

The NRC staff reviewed the response to PRA RAI 4 and found the response did not address the issue. The peer review observation in the LAR states:

“Estimates based on the surveillance tests and maintenance acts as described in DA-C6 and DA-C7 should be performed for significant components whose data are not tracked in the MSPI [Mitigating Systems Performance Index] data.”

The peer review recommendations states:

“Update the estimates for significant events based on surveillance test and maintenance records.”

The response to PRA RAI 4 states:

“A sensitivity study was performed by replacing the base data for these failure modes with generic data from NUREG/CR-6928. It was determined that the finding is unlikely to change the conclusions of risk-informed decisions.”

Supporting requirements (SRs) DA-C6 and DA-C7 are not limited to the MSPI systems. SR DA-C6 and SR DA-C7 include consideration of plant-specific data, and it is not clear how generic data has been demonstrated to be bounding for the non-MSPI components. That is, if the peer review recommendation were to be performed it is not clear that the generic data would necessarily be bounding.

Please provide justification why the use of generic data for performing sensitivity analyses is bounding without updating applicable component estimates with plant-specific data consistent with SR DA-C6 and SR DA-C7, or complete the work to meet SR DA-C6 and SR DA-C7 for applicable components and provide the disposition of the F&O.

### **Energy Northwest Response:**

Finding F&O 2-2 against SR DA-C6 and SR DA-C7 from the 2009 peer review has been resolved. The disposition of the F&O is as follows:

Estimates for significant events not tracked in the Mitigating Performance System Index (MSPI) data are now based on plant-specific surveillance test and maintenance records. Resolution of F&O 2-2 impacts the following component failure modes: C---W2 (compressor fails to start), C---W4 (compressor fails to run), FN--R3 (fan fails to start), FR--W4 (fan fails to run), AHUS---S3 (air handling unit fails to start), AHUR---W4 (air handling unit fails to run).

The resolution to this F&O has been incorporated into a working model. This working model will be used for all Risk informed Technical Specification (RITS) 5B assessments until a model of record revision is released which contains the resolution to this F&O.