



**ENERGY  
NORTHWEST**

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10 CFR 50.55a

June 26, 2017  
GO2-17-107

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 FOR RELIEF  
REQUEST 3ISI-16**

- References: 1) Letter GO2-16-149, dated December 7, 2016, AL Javorik (Energy Northwest) to NRC, "Relief Requests for Limited Coverage Examinations Performed in the Third 10-Year Inservice Inspection Interval"
- 2) Email, dated May 24, 2017, John Klos (NRC) to Lisa Williams (Energy Northwest), "NRC RAIs for Columbia Relief Request MF8922, 3ISI-16" (ADAMS Accession No. ML17144A170)

Dear Sir or Madam:

By Reference 1, Energy Northwest submitted for approval Relief Request 3ISI-16.

By Reference 2, the Nuclear Regulatory Commission (NRC) submitted Requests for Additional Information (RAIs) to Energy Northwest. Attachment 1 provides the requested information.

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 26th day of June, 2017.

Respectfully,

A. L. Javorik  
Vice President, Engineering

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Attachment: As stated

cc: NRC RIV Regional Administrator  
NRC NRR Project Manager  
NRC Sr. Resident Inspector - 988C  
CD Sonoda – BPA 1399 (email)  
WA Horin - Winston & Strawn

## RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (RAI)

### NRC RAI 1:

Section XI, Table IWB-2500-1 of the ASME Code requires that for examination category B-A, Item Numbers B1.21 and B1.22, the accessible length of all welds must be examined each inspection interval.

- a) For the eight components listed in Table 3ISI-16.1 of the Relief Request, discuss if the stated examination coverages are based on the percentage of total weld length, or the percentage of accessible weld length.
- b) Please also provide the linear dimension for the accessible weld length for the eight components of this Relief Request.

### Energy Northwest Response:

1a. The examination coverages provided in Table 3ISI-16.1 are based on the percentage of the total weld length. The hatched out regions in Figure 3ISI-16.1 of the Relief Request are intended to represent the inaccessible areas that were not covered. Columbia examined 100% of the accessible weld length. Columbia notes that Table IWB-2500-1 Category B-A, Item B1.20 of ASME Section XI 2001 edition with 2003 addenda requires only examination of the accessible portion, however Note 2 of the Table indicated that this includes essentially 100% of the weld length. Columbia achieved 100% coverage of the accessible portion per the Table; it is conservatively reported as limited coverage per Note 2 of the Table. Reporting these welds as limited coverage is consistent with the previous interval.

1b. The following table provides the calculated linear dimensions of the total weld length and accessible weld length for each of the eight welds with the values rounded to the nearest inch.

Weld Id	Total Weld Length	Accessible Length
DG (Bottom Head Circumferential Weld)	236 in	46 in
DR (Bottom Head Circumferential Weld)	236 in	46 in
DA (Bottom Head Meridional Weld @ 272°)	61 in	44 in
DB (Bottom Head Meridional Weld @ 332°)	61 in	44 in
DC (Bottom Head Meridional Weld @ 32°)	61 in	44 in
DD (Bottom Head Meridional Weld @ 92°)	61 in	44 in
DE (Bottom Head Meridional Weld @ 152°)	61 in	44 in
DF (Bottom Head Meridional Weld @ 212°)	61 in	44 in

**NRC RAI 2:**

In the Inservice Inspection Program Plan for Interval 3, submitted by the licensee on December 15, 2005 (see ADAMS Accession No. ML053620391), the licensee provided the examination coverage obtained during the second ISI interval (see Table 5-3 of the Interval 3 Inservice Inspection Program Plan). The licensee also provided the weld length, weld area, total weld volume and volume scanned for the second ISI interval. Based on the information provided by the licensee, the examination coverage for the eight components of this Relief Request is the same for both the second and third ISI interval inspections. However, in order for the NRC staff to independently verify the coverages obtained during the third ISI interval, the NRC staff requests the following additional information.

- a) Discuss if the examination coverage calculations, and the calculation inputs, are the same for the third ISI interval as for the second ISI interval.
- b) If there have been any changes to the calculations described in RAI Question 2.a above, describe the changes and discuss how you verified that examination coverage is the same for both second and third ISI interval inspections.

**Energy Northwest Response:**

2a. The volumetric examinations performed on these welds during the third interval utilized the same procedures, beam angles (60°), beam directions (parallel and transverse), mode (RL), and frequency as those used in the second interval. Both intervals used transducers of the same size and shape and there was no change in the weld geometry or physical constraints in the area. Because there is no change in the method, tooling, weld geometry and physical constraints, the calculated volumetric coverages are the same.

2b. As discussed above there were no changes in the key parameters used, hence the volumetric coverages between the two intervals are the same. Columbia utilized plant drawings and simple geometry to estimate weld length and accessible weld lengths in order to verify that the reported volumetric coverages were reasonable. This verification, along with comparison to the previous interval, confirms that all of the accessible portions of the welds were inspected.