



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 16, 2010

Mr. S.K. Gambhir
Vice President Technical Services
Columbia Generating Station
Energy Northwest
MD PE04
P.O. Box 968
Richland, WA 99352-0968

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
COLUMBIA GENERATING STATION, LICENSE RENEWAL APPLICATION

Dear Mr. Gambhir:

By letter dated January 19, 2010, Energy Northwest submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew Operating License No. NPF-21 for Columbia Generating Station, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Abbas Mostala and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4029 or by e-mail at evelyn.gettys@nrc.gov.

Sincerely,

A handwritten signature in cursive script, reading "Evelyn Gettys", is positioned above the typed name.

Evelyn Gettys, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure:
As stated

cc w/encl: Distribution via Listserv

COLUMBIA GENERATING STATION
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION

RAI 3.1.2.3-01

Background

Generic Aging Lessons Learned (GALL) Report Volume 1, Revision 1, Table 1 item 48 and GALL Report Volume 2, Revision 1, item IV.C1-1 indicate that steel and stainless steel Class 1 piping, fittings, and branch connections, which are less than Nominal Pipe Size (NPS) 4 and are exposed to reactor coolant, are subject to cracking due to stress corrosion cracking or intergranular stress corrosion cracking (stainless steel only) and thermal and mechanical loading. The GALL Report recommends the American Society of Mechanical Engineers (ASME) Section XI Inservice Inspection, Subsections IWB, IWC, and IWD Program, Water Chemistry Program, and One-Time Inspection of ASME Code Class 1 Small-bore Piping Program to manage the aging effect.

Issue

License Renewal Application (LRA) Table 3.1.2-3, indicates that piping and fittings less than 4 inches exposed to reactor coolant are associated with LRA item 3.1.1-48 and the components are subject to cracking due to stress corrosion cracking and intergranular attack (IGA). LRA Table 3.1.2-3 also addresses, under item 3.1.1-48, the following components to manage stress corrosion cracking and intergranular attack in the same manner with the piping and fittings less than 4 inches exposed to reactor coolant: annubar, condensing unit, flow elements less than 4 inches, orifice less than 4 inches, tubing and valve bodies less than 4 inches. The applicant has indicated that these components are managed by the Small Bore Class 1 Piping Inspection Program and the BWR Water Chemistry Program.

In its review, the staff found the need to clarify why the applicant's Inservice Inspection (ISI) Program is not used to manage the aging effect for the components as recommended in the GALL Report although the applicant claimed that the line items are consistent with GALL Report item IV.C1-1. In addition, the staff found the need to clarify whether the cracking due to thermal and mechanical loading is also managed under the AMR line items in a consistent manner with GALL Report item IV.C1-1.

Request

1. Clarify why the applicant's ISI Program is not used to manage cracking due to stress corrosion cracking and intergranular attack for the aforementioned components including piping and fittings less than 4 inches exposed to reactor coolant.

ENCLOSURE

2. Clarify whether cracking due to thermal and mechanical loading is also managed under the aforementioned AMR line items in a consistent manner with GALL Report item IV.C1-1. If cracking due to thermal and mechanical loading is not managed under the line items, provide justification why the aging effect due to the aging mechanisms is not managed for the components under the line items although the applicant claimed the consistency of the line items with the GALL Report.

Letter to S.K. Gambhir from Evelyn Gettys dated August 16, 2010

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/RA/

Evelyn Gettys, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

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