



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 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](mailto:evelyn.gettys@nrc.gov).

Sincerely,

A handwritten signature in cursive script that reads "Evelyn Gettys".

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 B.2.28-2**

Background:

The Generic Aging Lessons Learned (GALL) Report X1. M17 establishes that for monitoring and trending of piping systems susceptible to flow-accelerated corrosion (FAC), a predictive code should be used to predict component degradation. In license renewal application (LRA) Section B.2.28, the applicant states that an enhancement to the FAC Program includes adding gray cast iron as a material identified as susceptible to FAC. The applicant further states that the guidance and recommendations of Electric Power Research Institute (EPRI) NSAC-202L will be utilized to ensure that the integrity of piping systems susceptible to FAC is maintained. EPRI NSAC-202L, Rev 3, recommends using CHECWORKS as a tool to predict and monitor the wear rate in piping systems susceptible to FAC but it is modeled for carbon and low alloy steel piping.

Issue:

The LRA does not contain information regarding the method that will be used to monitor or inspect the gray cast iron components for FAC.

Request:

Please discuss how monitoring and inspection of gray cast iron susceptible to FAC will be performed to ensure that structural integrity will be maintained.

**RAI 3.6-1**

Background:

Standard Review Plan (SRP) Table 3.6.1, Item Number 3.6.1-9, credits the GALL Report aging management program (AMP) XI.S6, Structures Monitoring Program to manage the aging effect/mechanism loss of material due to general corrosion for metal-enclosed bus enclosure assemblies.

ENCLOSURE

Issue:

In LRA Table 3.6.2-1, the applicant references Item 3.6.1-9 and generic note A, and credits the Structures Monitoring Program to manage aging for metal-enclosed bus enclosure assemblies. However, the discussion of the Structures Monitoring Program in Appendix B of the LRA does not indicate that the metal-enclosed bus enclosure assemblies are within the scope of the Structures Monitoring Program.

Request:

Confirm that the scope of Structures Monitoring Program includes the metal-enclosed bus enclosure assemblies, and revise the scope of Structure Monitoring Program as appropriate.

**RAI 3.6-2**

Background:

In LRA Table 3.6.2-1, under component/commodity group, "Uninsulated Ground Conductors and Connections," the applicant indicated that there are no aging effects requiring management for the metallic components of uninsulated ground conductors and connections.

Issue:

The LRA did not provide technical justification of how uninsulated ground conductors and connections are not subject to aging degradation such as loss of material due to general corrosion in soil environment.

Request:

Provide a detail technical justification as to why uninsulated ground conductors are not subject to any aging degradation.

**RAI 3.6-3**

Background:

GALL Report, Vol. 2, Rev. 1, Item VI.A-8, "Fuse Holders (Not Part of a Larger Assembly; Metallic Clamp)," identifies the aging effect and aging mechanism as fatigue, ohmic heating, thermal cycling, electrical transients, frequent manipulation, vibration, chemical contamination, corrosion and oxidation. The associated AMP XI.E5, "Fuse Holders," states that fuse holders within the scope of license renewal should be tested to provide an indication of the condition of the metallic clamps of fuse holders. In Table 3.6.1, under Item 3.6.1-06 of the LRA, the applicant indicates that the aging effects detailed in NUREG-1801 are not applicable for this item.

Issue:

In LRA Appendix B, Table B-1, the applicant stated that Fuse Holder Program is not credited for license renewal. Table 3.6.2-1, under Fuse Holder Metallic Clamp component type, also states that these aging effects are not applicable at Columbia Generating Station. The applicant does not provide a detailed evaluation for each aging effect identified in GALL Report and AMP XI.E5.

Request:

Provide a detailed evaluation that addresses the aging effect/mechanisms identified in GALL Report, Vol. 2, Revision 1, and Item VI.A-8 that supports the conclusions made in LRA Table 3.6.1, Item 3.6.1-06.

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 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](mailto:evelyn.gettys@nrc.gov).

Sincerely,  
*/RA/*  
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

**DISTRIBUTION:**

ADAMS Accession No.: ML102230369

OFFICE	LA:DLR	PM:RPB1:DLR	BC: RPB1:DLR	PM:RPB1:DLR
NAME	IKing	EGettys	BPham	EGettys
DATE	08/11/10	08/12/10	08/16/10	08/16/10

OFFICIAL RECORD COPY

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

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

**DISTRIBUTION:**

**HARD COPY:**

DLR RF

**E-MAIL:**

PUBLIC

RidsNrrDir Resource

RidsNrrDirRpb1 Resource

RidsNrrDirRpb2 Resource

RidsNrrDirRarb Resource

RidsNrrDirRapb Resource

RidsNrrDirRasb Resource

RidsNrrDirRerb Resource

RidsNrrDirRpob Resource

-----  
EGettys

DDoyle

FLyon

WWalker, RIV

RCohen, RIV

LSubin, OGC