



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

November 05, 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
(TAC NO. ME3058)

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.

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

Kichline
RAI B.2.14-1

Background

Generic Aging Lessons Learned (GALL) aging management program (AMP) XI.M32 states that use of a one-time inspection is appropriate when (a) an aging effect is not expected to occur but the data is insufficient to rule it out with reasonable confidence; (b) an aging effect is expected to progress very slowly in the specified environment, but the local environment may be more adverse than that generally expected; or (c) the characteristics of the aging effect include a long incubation period. GALL AMP XI.M32 also states that for these cases, the one-time inspection should provide confirmation that either the aging effect is indeed not occurring, or the aging effect is occurring very slowly so as not to affect the component or structure's intended function during the period of extended operation. GALL AMP XI.M32 also states that one-time inspections may be used to verify the system-wide effectiveness of an AMP at inspection locations in the system or component based on the aging effect.

In license renewal application (LRA) Section B.2.14, the applicant stated that its Cooling Unit Inspection Program will be used to detect and characterize the material conditions of aluminum, steel, copper alloy and stainless steel cooling unit components that are exposed to condensation (internal or external) environment. The applicant also stated that the inspection would provide direct evidence as to whether, and to what extent, a loss of material due to crevice, galvanic, general, pitting, or microbiological influenced corrosion, reduction in heat transfer due to fouling of heat exchanger tubes and fins, or cracking of aluminum components has occurred, or is likely to occur, that could result in a loss of intended function.

GALL Report item VII.G-23 recommends GALL AMP XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components" to manage loss of material for steel piping exposed internally to moist air or condensation. GALL AMP XI.M38 includes periodic inspections of the internal surfaces of components to manage loss of material.

GALL Report items VII.F1-1, VII.F2-12, and VII.F2-14 recommend a plant-specific aging management program and require further evaluation to manage the loss of material, pitting and crevice corrosion for stainless steel, aluminum, and copper, respectively.

Issue

It is not clear to the staff how a one-time inspection program is appropriate to manage loss of material and cracking for aluminum exposed to condensation (external) and loss of material for steel exposed to condensation (internal) given that (a) industry experience has shown that aging is expected for these material and environment combinations (b) the GALL Report recommends periodic inspection programs to manage aging for these material and environment combinations; and (c) a one-time inspection program is only to be used when an aging effect is not expected or is expected to progress very slowly.

ENCLOSURE

Request

Justify how the one-time inspections proposed by the Cooling Units Inspection Program is adequate by explaining how, for each component managed by the program, one of the following criteria for use of a one-time inspection is satisfied: (a) the aging effect is not expected to occur but the data is insufficient to rule it out with reasonable confidence; (b) the aging effect is expected to progress very slowly in the specified environment, but the local environment may be more adverse than that generally expected; and (c) the characteristics of the aging effect include a long incubation period.

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

Docket No. 50-397

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As stated
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Letter to S.K. Gambhir from E. Gettys dated November 05, 2010

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
COLUMBIA GENERATING STATION, LICENSE RENEWAL APPLICATION
(TAC NO. 3058)

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