

November 18, 2004

Mr. Dennis L. Koehl
Site Vice President
Nuclear Management Company, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL
APPLICATION

Dear Mr. Koehl:

By letter dated February 25, 2004, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to 10 CFR Part 54, to renew the operating licenses for Point Beach Nuclear Plant (PBNP), Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC). The NRC staff is reviewing the information contained in the license renewal application (LRA) and has identified, in the enclosure, areas where additional information is needed to complete the review.

These RAIs were discussed with your staff, Mr. Jim Knorr, and a mutually agreeable date for this response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-2232 or e-mail MJM2@nrc.gov.

Sincerely,

/RA/

Michael J. Morgan, Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket Nos.: 50-266 and 50-301

Enclosure: As stated

cc w/encls: See next page

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Point Beach Nuclear Plant, Units 1 and 2

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DISTRIBUTION: Ltr. To D. Koehl, RAI for the Review of the Pt. Beach Nuclear Plant, Units 1 and 2, Dated: November 18, 2004

Adams accession no.: **ML043280552**

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POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION (LRA)
REQUEST FOR ADDITIONAL INFORMATION (RAI)

Aging Management Review Program

RAI 3.1-1

Table 3.1.2-5 identifies that aging will be managed for the SG Anti-Vibration Bars (AVBs) by the Water Chemistry Program and the Steam Generator Integrity Program for cracking due to SCC. Table 3.1.2-5 also refers to NUREG 1801, Volume 2, line item (IV.D1.2-h) and table 1 line item (3.1.1-19) which refer to loss of material associated with FAC for this line item. Provide an explanation for the discrepancy between the aging effect identified in the license renewal application and what is identified in GALL (including the further evaluation section of the LRA) and provide any corrections. Discuss how SG secondary side inspections will be used to assess degradation in the AVBs in light of the ten elements of an AMP.

RAI 3.1-2

Table 3.1.2-5 identifies that aging management for a number of SG secondary side components which are identified as susceptible to loss of material will be provided by both the Water Chemistry Program and Steam Generator Integrity Program. Table 3.1.2-5 also associates NUREG 1801 Volume 2 line item (IV.D1.1-c) and table 1 line item (3.1.1-02) with these components which identifies that the Inservice Inspection Program along with Water Chemistry will be used to manage aging. The further evaluation (item 3.1.2.2.2.1) associated with (3.1.1-02) for these items indicates Inservice Inspection and Water Chemistry will manage aging for these components and that the Steam Generator Integrity Program will provide all inclusive guidance for the management of Steam Generator assets. The Steam Generator Integrity Program description does not indicate that it will be used to meet the intent of the Inservice Inspection program for certain components. Clarify if the SG Integrity Program is intended to subsume the Inservice Inspection activity and manage aging of these components, why Inservice Inspection is not addressed in table 3.1.2-5 for these components and how the Steam Generator Integrity Program will manage aging for these components with particular focus being paid to addressing detection, monitoring and trending, acceptance criteria and operating experience with past secondary side inspections associated with these components. Also address how loss of material, pitting and crevice corrosion of the shell and its components will be identified by these secondary side inspections.

- SG Blowdown Piping Nozzles and Secondary Shell Penetration
- SG Feedwater Nozzle
- SG Secondary Closures
- SG Steam Outlet Nozzle
- SG Tube Bundle Wrapper and Wrapper Support System
- SG Tubesheet
- SG Upper and Lower Shell, Elliptical Head and Transition Cone

RAI 3.1-3

Table 3.1.2-5 indicates that SG Components (in contact with primary water) fabricated from stainless steel, alloy 600 and alloy 690 are susceptible to loss of material and the aging will be managed by Water Chemistry alone. Since water chemistry is a mitigative strategy and inspection is used (one time inspection at a minimum) to verify its effectiveness, provide a list of the subject sub-components and provide an explanation why water chemistry alone is sufficient to manage aging in these sub-components based on specific operating experience or past inspection results of these sub-components demonstrating the effectiveness of water chemistry.

RAI 3.1-4

Table 3.1.2-5 indicates that the SG Divider Plate which is fabricated from alloy 600 and alloy 690 is susceptible to stress corrosion cracking and the aging will be managed by Water Chemistry alone. Since water chemistry is a mitigative strategy and inspection is used (one time inspection at a minimum) to verify its effectiveness, provide an explanation why water chemistry alone is sufficient to manage aging in these components based on specific operating experience or past inspection results that demonstrate the effectiveness of water chemistry.

RAI 3.1-5

Clarify the SG program scope to identify those sub-components that rely on this program for aging management. Discuss the periodicity, acceptance criteria and bases for these items associated with the secondary side SG inspections for the various sub-components which rely on this program for aging management.

RAI 3.1-6

The SG Integrity Program AMP related operating experience acknowledges the Outside Diameter Stress Corrosion Cracking (ODSCC) that was identified at Seabrook and indicates that the Point Beach Nuclear Power Plant SG tube material is thermally treated alloy 600 in Unit 1 and thermally treated Alloy 690 in Unit 2. Provide an operating experience discussion regarding inspections and results performed at Point Beach Units 1 & 2 to identify if similar tube eddy current characteristics exist as those identified at Seabrook and documented in Supplement 1 of NRC Information Notice 2002-21.

Aging Management Program B2.1.7 - Buried Services Monitoring Program

RAI B2.1.7-1

The program indicates that buried components within the program scope are coated per industry practice prior to installation. Although the AMP references "industry practice" what bases were used by the plant to confirm that all buried services within the program scope were required to be coated at the plant? If such documentation does not exist, how is reasonable assurance established that program components are all coated in light of the limited related operating experience.

RAI B2.1.7-2

Related operating experience indicates that a post-indicating valve was repaired in the fire protection system which required excavation, exposing portions of the associated piping. The operating experience also indicates that the external portion of the piping showed no signs of corrosion after 14 years. Please discuss how the specific condition assessment of the piping corrosion (or lack of) was made in light of the program element that buried components are coated per industry practice; i.e., was the piping coated and was the coating removed to make this assessment?

RAI B2.1.7-3

Since this is a new program it is understandable that there may be limited operating experience regarding inspections of opportunity which validate the limited buried component degradation. However, the GALL indicates that inspection periodicity needs to be evaluated on a plant specific bases. With such a limited amount of experience, provide a justification why one time inspection of various in-scope components is not warranted prior to the period of extended operation to establish a sound basis for inspection frequency or to justify why inspections of opportunity will adequately manage aging in the future.

Aging Management Program B2.1.22 - Tank Internal Inspection Program

RAI B2.1.22-1

The Tank Internal Inspection Program indicates that the internal surfaces of carbon steel tanks will be periodically visually inspected and UT will be used to inspect inaccessible areas, such as the tank bottom or may be used from external surfaces. Provide a discussion regarding the periodicity and its bases for internal visual inspection and UT inspection of the tank bottoms. Discuss the inspection scope for internal visual, UT of the tank bottom and when external UT is used, for instance; will internal visual inspection consist of 100% of the tank surface area, will the tank bottom UT consist of 100% of the bottom surface and if 100% inspection is not performed discuss the bases for a reduced inspection scope and the associated expansion criteria. Discuss how external UT examination scope will be comparable to internal visual examination scope when external UT inspection is used in lieu of internal inspection. If a sampling strategy is used in any of the above inspections provide a discussion of the sampling plan and its bases.

RAI B2.1.22-2

Since monitoring and trending will only commence if significant wall loss is identified, how will it be possible to know the areas monitored if 100% inspection is not performed every time and how will accurate rates of degradation be determined which could be used to establish alternate inspection frequencies as outlined in the program description. The Acceptance Criteria indicates that "Any degradation will be recorded and evaluated..." this appears to be a form of monitoring and trending, discuss the apparent discrepancy.

RAI B2.1.22-3

Define what is considered significant coating degradation which would lead to corrective action or significant material loss which would lead to commencement of trending. How will loss of

material be measured/evaluated when visual inspection is performed to determine level of significance. Discuss how loss of material from general corrosion, pitting or underdeposit attack would be addressed relative to significant material loss and acceptance criteria.

RAI B2.1.22-4

Based on the related operating experience, tank internal inspections of the North and South Condensate Tanks have occurred, did these inspections include UT of the tank bottoms. If the tanks bottoms were not evaluated when will the tank bottoms be evaluated and what was the justification for not evaluating the bottoms. Had these tanks ever been recoated in the life of the plant and when was the previous inspection of each of these tanks.