

November 16, 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 Mr. Jim Knorr of your staff 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 email 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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ADAMS Accession no.: **ML043270539**

Document Name: E:\Filenet\ML043270539.wpd

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DISTRIBUTION: Ltr to D. Koehl, RAI Re: Pt. Beach Nuclear Plant, Units 1 and 2, Dated:
November 16, 2004

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

Section 2.3.3 Auxiliary Systems

2.3.3.4 Waste Disposal System RAIs

RAI 2.3.3.4-1

The PBNP UFSAR states that the Waste Disposal (WD) System discharge to the Service Water System has an automatic isolation function to prevent exceeding 10 CFR 20 and 100 limits due to high effluent radioactivity. The PBNP LRA Section 2.3.3.4 states that piping and valves credited for service water isolation from WD System components are in-scope. However, the drain isolation valve WL-1785A and its inter-tie piping to the WD System are shown as not in-scope on license renewal drawing LR-684J971, Sheet 2, Unit 1 & 2 (Waste & Blowdown Evaporator Distillate Process System), at location A-9. Failure of WL-1785A valve and its associated piping could cause a loss of this 10 CFR 20 and 10 CFR 100 required function. Justify your determination to exclude the WL-1785A valve and its associated piping from the scope of license renewal.

RAI 2.3.3.4-2

The PBNP UFSAR states WD system discharge to the Service Water System has an automatic isolation function to prevent exceeding 10 CFR 20 and 100 limits due to high effluent radioactivity. The PBNP LRA Section 2.3.3.4 states that piping and valves credited for Service Water System isolation from WD components are in-scope. However, the license renewal application drawing LR-PBM-231, Sheet 1, Unit 1&2 De-ionized and Reactor Water Makeup Water at location F-7, indicates that valve RWM1249A and its downstream piping is not in-scope. Failure of RWM1249A and its downstream piping could cause a loss of the 10 CFR 20 and 10 CFR 100 required function. Justify your determination to exclude the RWM1249A valve and its downstream piping from the scope of license renewal.

RAI 2.3.3.4-3

The PBNP LRA Section 2.3.3.4 states that principal components of the WD System within the scope of License Renewal include the heat exchangers with Component Cooling Water interfaces and the piping and valves that are credited for Service Water System isolation from WD System components. Drawing LR-684J971, Sheet 1 Unit 1-2, at location C-3 indicates that the following components are out-of-scope: the service water supply to HX-702 (Boric Acid Waste Evaporator Vacuum system Heat Exchanger), the interface with the HX, and the interface isolation valve BS-VA37. This is contrary to the information provided in the LRA and drawing LR-M-2207 sheet 1, Unit 2 service water at location A-9, which indicate these components are in-scope. There are also a number of WD/SW interface components on Drawing LR-684J971, Sheet 1 that are not shown do not appear on LR-M-2207, Sheet 1 and may need to be in-scope. Failure of these components could adversely impact the isolation functions between the WD System and other interfacing systems. Provide additional information and justify your determination for not considering these components to be in-scope for license renewal.

RAI 2.3.3.4-4

There are quite a few inconsistencies within the Waste Disposal system designations shown on the license renewal drawings which are identified as follows:

- a. The print-to-print inter-tie designator from LR-684J971, Sheet 2 Unit 1-2, Waste and Blowdown Evaporator Distillate Process system at location A-8 to the Service Water Overboard piping M-207 sheet 3 is not designated as in-scope.
- b. LR-684J971, sheet 2 Unit 1-2, Waste and Blowdown Evaporator Distillate Process system at location C-8 indicates the piping upstream of RWM1249A as in-scope. This is not consistent with drawing LR-PBM-231 sheet 1 Unit 1&2 De-ionized and Reactor Water Makeup Water.
- c. LR684J971, sheet 1 Unit 1-2, Waste Disposal system at location C-9 indicates the piping segment upstream of piping segment WD-151R-15 at location E-9 and downstream of isolation valve 1708 to be in-scope. There appears to be no LRA basis for this determination.

Failure of the above components currently designated as out-of-scope could have an adverse impact on the intended functions of the Waste Disposal System. Provide additional information to clarify your determinations as to which Waste Disposal System components, as described above, are in-scope for license renewal.

2.3.3.8 Emergency Power - Support Systems for Emergency Diesels RAIs

RAI 2.3.3.8 - 1

The PBNP UFSAR Section 8.8 states that the Diesel Generator (DG) system has several auxiliary support systems that must function in order to perform its safety related function including the air intake and exhaust system. License renewal drawing LR-M-226 shows the air intake oil bath filters inside the DG building with air intake screens shown on the building wall. The air intake screens on the DG building walls are shown as out-of-scope of license renewal on license renewal drawing LR-M-226, Sheets 1 and 2 at location E-3. LRA Section 2.4.4 states that the DG building is a safety-related Seismic Class I structure but does not specifically address the air intake screens. Provide additional information and justify your determination to not include the diesel generator air intake screens in-scope for license renewal and subject to an AMR.

RAI 2.3.3.8 - 2

The PBNP UFSAR Section 8.8 states that the Diesel Generator (DG) system has several auxiliary support systems that must function in order to perform its safety related function including the fuel oil system. The instrument CS P105 and associated line on the gas turbine fuel oil supply pump P-105 is shown as out-of-scope of license renewal on license renewal drawing LR-M-219, Sheet 1 at location B-9. This is inconsistent with instruments CS P70A and CS P70B for fuel oil transfer pumps P-70A and P-70B which shows these instruments and their

associated lines as in-scope. Failure of this instrument and its associated line may adversely impact the integrity of the gas turbine fuel oil transfer pump. A degraded gas turbine fuel oil transfer pump could adversely impact the station blackout function of the gas turbine generator. Provide additional information to support your determination that it is acceptable to not include the instrument CS P105 and its associated line as in-scope for license renewal.

RAI 2.3.3.8 - 3

The PBNP UFSAR Section 8.8 states that the Diesel Generator (DG) system has several auxiliary support systems that must function in order to perform its safety related function including the fuel oil system. The instruments POS 3930 and CS 3930 and their associated lines on the DG day tank T-31A are shown as out-of-scope of license renewal on license renewal drawing LR-M-219, Sheet 1 at location G-3. This is inconsistent with instruments POS 3931 and CS 3931 for DG day tank T-31B which shows these instruments and their associated lines as in-scope. Failure of these instruments and their associated lines may adversely impact the integrity of the supply lines to the DG day tank. A degraded DG day tank supply could adversely impact the safety-related function of the G01 diesel generator. Provide additional information to support your determination that it is acceptable to not include the instruments POS 3930 and CS 3930 and their associated lines as in-scope for license renewal.

RAI 2.3.3.8 - 4

The PBNP UFSAR Section 8.8 states that the Diesel Generator (DG) system has several auxiliary support systems that must function in order to perform its safety related function including the fuel oil system. The solenoid vent valve FO 3922 S on flow control valve FC 3922 is shown as in-scope for license renewal on license renewal drawing LR-M-219, Sheet 1 at location G-4. The line to this solenoid vent valve is shown as out-of-scope for license renewal. In addition, the solenoid vent valve FO 3923 S on flow control valve FC 3923 is shown as out-of-scope at location E-9. A degraded DG fuel oil supply system could adversely impact the safety-related function of the diesel generators. Provide additional information to clarify why only solenoid vent valve FO 3922 S on FC 3922 is shown as in-scope, while the associated lines and the similar vent valve configuration on FC 3923 are not shown in-scope for license renewal.

RAI 2.3.3.8 - 5

The PBNP UFSAR Section 8.8 states that the Diesel Generator (DG) system has several auxiliary support systems that must function in order to perform its safety related function including the fuel oil system. The 20" man way, SAX 7907, 3 inch vent lines and LS 3942 on the emergency fuel tank T-72 are shown as out-of-scope for license renewal on license renewal drawing LR-M-219, Sheet 1 at location C-5. This is inconsistent with the 24" man way, SAX 7913A, 4 inch vent lines and LS 3933A for DG storage tank T-175A shown on license renewal drawing LR-M-219, Sheet 2 which shows similar equipment on T-175A as in-scope. A degraded DG emergency fuel tank T-72 could adversely impact the emergency fuel supply and the safety-related function of the diesel generators. Provide additional information to support your determination that the 20" man way, SAX 7907, 3 inch vent lines and LS 3942 on the emergency fuel tank are out-of-scope for license renewal.

2.3.3.14 Plant Sampling System RAIs

No RAIs are identified for the scoping and screening review for the Plant Sampling system for the PBNP LRA.

2.3.3.15 Plant Air System RAIs

RAI 2.3.3.15 - 1

The PBNP UFSAR Section 9.7.1 states, "The IA [Instrument Air] system shall automatically isolate the purge supply and exhaust valve accumulators, including the supplemental nitrogen bottle system for 2VNPSE-3212 and 2VNPSE-3244, from the IA system during a loss of instrument air to maintain containment integrity and prevent release of radioactivity to the outside environment." Drawing LR-PBM-2332 shows two valve actuators (listed below) as out-of-scope for license renewal. LRA Section 2.3.3.15 states that the valve bodies are in-scope as a pressure boundary. The two valve actuators are not shown on plant drawings in a manner that is consistent with other similar valves in the IA system. If portions of these valves have pressure boundary functions that are not in-scope, their failure could adversely impact the IA system pressure boundary function. Provide clarification and justification as to why the following valve actuators are not shown as in-scope for license renewal and subject to an AMR.

- a. LR-PBM-2332 - Actuator for 2VNPSE-3212, location E-2.
- b. LR-PBM-2332 - Actuator for 2VNPSE-3244, location E-6.

RAI 2.3.3.15 - 2

The PBNP UFSAR Section 9.7.1 states, "The IA system shall automatically isolate the instrument air lines penetrating containment whenever a containment isolation signal exists to maintain containment integrity and prevent release of radioactivity to the outside environment." Drawing LR-M-209, Sheet 11 shows IA piping through penetrations P-33A and P-33B in four locations as in-scope for license renewal. This agrees with LRA Section 2.3.3.15 that states the in-scope portion of the IA subsystem includes those IA components that support the charging pump varidrives, pressurizer PORVs, and the IA containment isolation valves; however, the IA air piping continuation for these containment penetrations drawing LR-M-209, sheet 11 (at four locations B-1, C-1, C-6 and D-6) shows the IA piping as out-of-scope for license renewal. The transition location from in-scope (containment isolation) to out-of-scope (inside containment) is not clearly marked. If portions of these piping sections are out-of-scope for license renewal, their failure may affect the integrity of containment. Provide additional information to clarify the exact locations of these four transitions to clearly show which sections are in-scope and which are out-of-scope for license renewal.

RAI 2.3.3.15 - 3

The PBNP UFSAR Section 9.7.1 states that the IA system shall automatically isolate the instrument air lines penetrating containment whenever a containment isolation signal exists to maintain containment integrity and prevent release of radioactivity to the outside environment. Drawing LR-M-209, Sheet 7 shows four tanks and associated piping (listing below) as

out-of-scope for license renewal. LRA Section 2.3.3.15 states that the in-scope portion of the IA subsystem includes those IA components that support the charging pump varidrives, pressurizer PORVs, and the IA containment isolation valves. Failure of these sections of piping depicted as not in-scope could affect the integrity of containment. Justify your determination of these tanks (listed below) and their associated piping to be not in-scope for license renewal and subject to AMR.

- a. 1T-196, location B-3
- b. 1T-197, location A-3
- c. T-196, location E-2
- d. T-197, location F-2

2.3.4.1 Main and Auxiliary Steam System RAIs

No RAIs are identified for the scoping and screening review for the Main and Auxiliary Steam System for the PBNP LRA.

2.3.4.2 Feedwater and Condensate System RAIs

RAI 2.3.4.2-1

AS described in the PBNP UFSAR, Section 10.1, the primary function of the Feedwater system is to provide feedwater to the steam generators. Further, according to the LRA, portions of the Feedwater System also provide pressure boundary and flow paths to support auxiliary feedwater makeup to the steam generators. The license renewal drawings for the Feedwater and Condensate systems show the following listed piping/valves/fittings off of the feedwater pressure boundary as not in-scope for license renewal. Whereas, LRA Section 2.3.4.2 states that the feedwater and condensate piping and fittings are in-scope as a pressure boundary. Failure of these sections of piping could affect the pressure boundary function of the Feedwater System. Provide additional information and justification as to why the piping areas listed below are not in-scope for license renewal and subject to an AMR.

- a. LR-M-202 SH-2, two sets of clean-out flanges, locations F-8 and C-8.
- b. LR-M-202 SH-2, two capped 3/8" ME with two in line valves, locations F-8 and C-8.
- c. LR-M-202 SH-2, two inlet lines from the Chem. Injection system, location F-9 and B-9.
- d. LR-M-202 SH-2, an outlet line to M-222 Sh. 1 location H-10v alve 145A, location F-7.
- e. LR-M-202 SH-2, an outlet line with valve 151A, location B-7.
- f. LR-M-202 SH-2, an outlet line to 1TE 2105, location C-9.
- g. LR-M-202 SH-2, an outlet line to 1PT 2289, location C-9.
- h. LR-M-202 SH-2, an outlet line to 1TX 2102, location C-8.
- i. LR-M-202 SH-2, an outlet line to 1TE 2104, location F-9.
- j. LR-M-202 SH-2, an outlet line to 1PT 2290, location F-9.
- k. LR-M-202 SH-2, an outlet line to 1TX 2101, location F-8.
- l. LR-M-202 SH-1, an outline to M-216 with valve 87, location D-10.
- m. LR-M-2202 SH-2, a clean-out flange, locations F-3 and C-3.
- n. LR-M-2202 SH-2, two capped 3/8" ME with two in line valves, locations F-3 and B-3.
- o. LR-M-2202 SH-2, two inlet lines with valves 180 and 167, location F-3 and B-3.
- p. LR-M-2202 SH-2, an outlet line to M-2222 Sh. 1 location G-6 with valve 145B at F-4.

- q. LR-M-2202 SH-2, an outlet line with valve 151A, location B-4.
- r. LR-M-2202 SH-2, an outlet line to 2TE 2105, location C-2.
- s. LR-M-2202 SH-2, an outlet line to 2PT 2289, location C-3.
- t. LR-M-2202 SH-2, an outlet line to 2TX 2102, location C-3.
- u. LR-M-2202 SH-2, an outlet line to 2TE 2104, location F-2.
- v. LR-M-2202 SH-2, an outlet line to 2PT 2290, location F-3.
- w. LR-M-2202 SH-2, an outlet line to 2TX 2101, location F-3.
- x. LR-M-2202 SH-1, an outline to M-216 with valve 87, location D-1.

RAI 2.3.4.2-2

The PBNP UFSAR section 10.1 describes that the primary function of the Feedwater System is to provide feedwater to the steam generators. As described in the LRA, portions of the Feedwater system also provide pressure boundary and flow paths to support auxiliary feedwater makeup to the steam generators. The condenser manual fill line shown on license renewal drawing LR-M-202 sheet 1, at location D-10 is indicated to be within the scope of license renewal; however, a similar condenser manual fill line shown on license renewal drawing LR-M-2002 sheet 1 at location D-1 is not within the scope of license renewal. Failure of this section of piping could affect the pressure boundary function of the Feedwater System. Justify your determination to exclude this section of piping from the scope of license renewal for the Unit 2 Feedwater System.

RAI 2.3.4.2-3

The PBNP UFSAR section 10.1 describes the primary design system function of the Feedwater System including provisions for blowdown from the steam generators. Portions of the Engineered Safety Features Actuation System (ESFAS) also provide actuation signals for Feedwater System isolation including the steam generator blowdown lines. License renewal drawing LR-M-201 sheet 3, at location F-10 indicates that the blowdown lines from the Steam Generators A & B are within the scope of license renewal. However, drawing LR-M-2201, Sheet 3, at location F-1 indicates that these sections of steam generator blowdown pressure boundary piping are not within the scope of license renewal for Unit 2. Also note that drawing LR-M-201, Sheet 1, at location E-8 indicates this section of piping is not within the scope of license renewal for Unit 1 contrary to drawing LR-M-201, Sheet 3. If the blowdown lines from the steam generators are relied upon for a pressure boundary function and isolation on an ESFAS signal, then their failure could adversely impact their intended functions. Clarify which sections of the steam generator blowdown lines have pressure boundary functions and should be in-scope for license renewal and subject to an AMR. Further, justify your determination of those portions of the blowdown piping that are out-of-scope for license renewal.

2.3.4.3 Auxiliary Feedwater System RAIs

RAI 2.3.4.3 - 1

The PBNP UFSAR Section 10.2 states that the Auxiliary Feedwater System has several safety related functions including supplying high-pressure feedwater to the steam generators in order to maintain a water inventory for removal of heat energy from the reactor under specific accident conditions. Drawing LR-M-217, Sheet 2, quadrant B-2, identifies a portion of the

Service Water return piping from AFW pump 1P-29 as outside the scope of license renewal. This is inconsistent with the Drawing LR-M-207, Sheet 1A, quadrant B-9, that shows the return Service Water piping from AFW pump 1P-29 as within the scope of license renewal. Failure of the out-of-scope return line may affect the pressure boundary integrity of the Auxiliary Feedwater System. Resolve these inconsistencies. Clarify whether this portion of Service Water piping is in-scope or not; If not, provide justification for not considering this piping for in-scope of license renewal.

RAI 2.3.4.3 - 2

The PBNP UFSAR Section 10.2 states the Auxiliary Feedwater System has several safety related functions including supplying high-pressure feedwater to the steam generators in order to maintain a water inventory for removal of heat energy from the reactor under specific accident conditions. Drawing LR-M-217, Sheet 2, quadrant B-3, identifies a portion of the air supply piping to valve 1 MS 2090 as within the scope of license renewal. This is inconsistent with the Service Water license renewal drawing LR-M-207, Sheet 1A, quadrant C-10, which shows the pneumatic supply line to 1 MS 2090 as not in-scope of license renewal. Failure of the out-of-scope pneumatic supply line may adversely impact the safety-related functions of the Auxiliary Feedwater System. Clarify whether this portion of air supply piping is in-scope or not; if not, provide justification for not considering this piping for in-scope of license renewal.

RAI 2.3.4.3 - 3

The PBNP UFSAR Section 10.2 states the Auxiliary Feedwater System has several safety related functions including supplying high-pressure feedwater to the steam generators in order to maintain a water inventory for removal of heat energy from the reactor under specific accident conditions. Drawing LR-M-217, Sheet 2, quadrant E-8 identifies a portion of the air supply piping to valve 2 MS 2090 as within the scope of license renewal. This is inconsistent with the Service Water license renewal drawing LR-M-207, Sheet 1A, quadrant G-10 that shows the pneumatic supply line to 2 MS 2090 as not within the scope of license renewal. Failure of the out-of-scope pneumatic supply line may adversely impact the safety-related functions of the Auxiliary Feedwater system. Clarify whether this portion of air supply piping is in-scope or not; If not, provide justification for not considering this piping for in-scope of license renewal.