

November 7, 2006

Mr. Peter T. Dietrich
Site Vice President
James A. FitzPatrick Nuclear Power Plant
Entergy Nuclear Operations, Inc.
P.O. Box 110
Lycoming, NY 13093-0110

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION REGARDING THE REVIEW
OF THE LICENSE RENEWAL APPLICATION FOR JAMES A. FITZPATRICK
NUCLEAR POWER PLANT (TAC NO. MD2667)

Dear Mr. Dietrich:

By letter dated July 31, 2006, Entergy Nuclear Operations, Inc. (Entergy) submitted a license renewal application (LRA) for the renewal of the Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant (JAFNPP). In support of the application and in accordance with Title 10 of the *Code of Federal Regulations* Part 51 (10 CFR Part 51) and 10 CFR Part 54, Entergy, submitted an environmental report (ER).

The NRC published a notice in the Federal Register on September 20, 2006 (71 FR 55032), advising the public that the NRC had determined that Entergy submitted sufficient information in its LRA in accordance with 10 CFR 54.19, 54.21, 54.22, 54.23, and 51.53(c), and that the application was acceptable for docketing.

While the NRC staff concluded that the JAFNPP application was acceptable in that enough information was provided to allow the staff to begin both the review for safety and environmental portions of your LRA, the NRC staff has identified the need for additional information and data analysis from the applicant to develop the environmental impact statement. The staff's requests for additional information is contained in the enclosure to this letter.

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Based on discussions with Mr. Rick Plasse of your staff, a mutually agreeable date for your response is within 30 days from the date of this letter. If you have any questions regarding this letter or if circumstances result in your need to revise the response date, please contact me at 301-415-1458 or by e-mail at nbl@nrc.gov.

Sincerely,

/RA/

N. B. (Tommy) Le, Senior Project Manager
License Renewal Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-333

Enclosure:
As stated

cc w/encl: See next page

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Letter to P. Dietrich from N B Le dated November 7, 2006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING THE REVIEW OF
THE LICENSE RENEWAL APPLICATION FOR JAMES A. FITZPATRICK
NUCEAR POWER PLANT (TAC NO. MD2667)

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**JAMES A. FITZPATRICK NUCLEAR POWER PLANT
LICENSE RENEWAL APPLICATION
REQUESTS FOR ADDITIONAL INFORMATION (RAI)
Part I and Part II**

Part I: In accordance with the requirements in 10 CFR Part 51, the James A. FitzPatrick Nuclear Power Plant (JAFNPP) Environmental Report (ER) should contain sufficient information to support analyses and findings. While information used in analyses are summarized in the ER and other documents may be referenced; however, during its acceptance review, the staff has found that the specific drawings and a description were not provided with the JAFNPP license renewal application (LRA) as required by the provisions of 10 CFR 51.53(c) specific to license renewal and other general requirements set out in 10 CFR 51.45 and 51.55. Therefore, the staff requests the applicant to provide the following additional information:

RAI E-1 Aquatic Ecology

Additional information required pursuant to 51.41, 51.45(c), 51.53(c)(3)(ii)(B), 51.53(c)(3)(iii), 51.70(b).

- Provide drawings and a detailed description of the circulating water intake structure (both the offshore and onshore structures) showing a plane view and an elevation view of the front of the structure with the intake bars and their spacing, a cross-section of the intake structure and the location of the fish deterrent system transducers.
- Provide drawings and a detailed description of the circulating water intake tunnel providing distances and direction from the plant.
- Provide drawings and a detailed description of the circulating water intake traveling screens and collection buckets and their spacing.
- Provide drawings and a detailed description of the circulating water discharge structure showing a plane view and an elevation view of the front of the structure.
- Provide drawings and a detailed description of the circulating water discharge tunnel distances and relative direction from the plant.
- Provide a detailed description of the characteristics and operation of the Fish Deterrent System (FDS).
- Provide a description of when intake flow reduction occurs and explain its impact on entrainment. The application states that in addition to the acoustic FDS, JAFNPP *"also utilizes additional operational measures and technological design features to further minimize already small entrainment impacts."* Measures include: intake flow reductions resulting from pump differentials, maintenance outages, and recirculation of heated condenser flow to temper incoming winter water; and the design of the intake structure.

Enclosure

- Provide drawings and a description of seasonal lake currents in the vicinity of the station and how these currents affect the cumulative impingement and thermal impacts of JAFNPP and Nine Mile Point Nuclear Station.
- Provide a copy of current Clean Water Act 316(a) determinations and data appendices.
- Provide a general summary of the aquatic and terrestrial monitoring programs at JAFNPP.

RAI E-2 Cultural Resources

Additional information required pursuant to 51.41, 51.45(c), 51.53(c)(3)(ii)(k), 51.70(b).

- If available, provide copies of aerial photos of the site prior to, during, and post construction.
- If available, provide copies of any old maps and any description relating to prior use of the site and any structures onsite prior to plant construction.
- If available, provide a copy of any readable map showing ground disturbance as a result of initial construction and subsequent operation activities.
- If available, provide copies of any previous archaeological surveys of the JAFNPP site.
- Provide copies of all procedures (including stop work procedures) related to the protection of historic and archaeological resources, for sites and structures.

RAI E-3 Transportation of Spent Fuel

Additional information required pursuant to Table B-1, Appendix B, Subpart A of Part 51, 51.41, 51.45(c), 51.70(b).

- Provide information to support the applicability of Table B-1 for transportation of spent fuel. Specifically provide the maximum fuel enrichment level and the peak rod average burnup level at JAFNPP.

RAI E-4 Zoning Regulations

Additional information required pursuant to 51.41, 51.45(c), 51.45(d), 51.70(b).

- Provide information regarding the status of compliance with applicable zoning and land-use regulations imposed by state or local agencies. Specifically, identify how the site and areas immediately surrounding the site are zoned and the restrictions or requirements associated with this zoning.

Comment E-5 Severe Accident Mitigation Alternatives

Additional information required pursuant to 51.41, 51.45(c), 51.53(c)(3)(ii)(L), 51.70(b). The staff continues to have concerns with the level of information Entergy is submitting for the Severe Accident Mitigation Alternatives (SAMA) portion of the ER. After performing the acceptance review of the application, the NRC staff has concluded that RAIs similar to RAIs

issued for other Entergy applications are warranted. It is evident from the SAMA section that the SAMA review guidance developed by NEI and endorsed by the NRC has not been consistently followed, and no lessons learned from previous SAMA reviews were incorporated in the FitzPatrick Environmental Report.

- The staff expects to issue RAIs related to the FitzPatrick SAMA analysis through separate correspondence by December 2006.

Part II: An LRA should contain sufficient information to support analyses and findings required by 10 CFR 50.54. During its acceptance review of the JAFNPP LRA, the staff has found that the applicant has not provided adequately certain information to enable the staff to later perform a more detailed review; therefore, the staff requests the following additional information in accordance with the requirements of 10 CFR 50.54:

1. RAI- Appendix A-1

SRP-LR states that the reviewer should confirm that the applicant has identified and committed in the LRA to any future aging management activities, including enhancements and commitments, to be completed before entering into the period of extended operation.

The Nuclear Energy Institute letter dated February 26, 2006, in response to NRC letter dated December 16, 2002, the industry has agreed to identify the high level future commitments in their updated final safety report supplement (Appendix A of the LRA).

JAFNPP LRA did not include a "Commitment List" therefore, descriptions of any proposed new aging management programs (AMPs) and AMP "enhancements" are incomplete. The staff requests the applicant to provide a commitment list to show all regulatory commitments. In addition, for each commitment that is placed on the application in either the original version or subsequent revisions of the commitment list, the staff requests that the applicant amend the applicable UFSAR Supplement summary description section in the JAF LRA Appendix A for each of the respective AMP or TLAA. This will provide the appropriate reference for each of the specific commitment that has been placed on the LRA for the AMP or TLAA under review.

2. RAI B.1.16.2-1

The "scope of program" attribute for AMP B.1.16.2 states that the program implements applicable requirements of ASME Section XI, Subsections IWA, IWB, IWC, IWD and IWF, and other requirements specified in 10 CFR 50.55a with NRC approved relief requests.

The staff notes that there is no regulatory basis to include previously granted inservice inspection (ISI) relief requests within the scope of a license renewal application because the NRC's approval of the relief requests does not extend beyond the scope of the current operating period and because these requests are not subject to processing under the requirements of 10 CFR Part 54. The same holds true for alternative programs that have previously been granted on applicable ASME Section XI inservice testing (IST) requirements.

The staff therefore requests that the applicant either amend the LRA to delete any and all references to relief requests for ASME ISI or IST requirements or amend the LRA to provide a commitment that any new or renewed relief requests that are sought for during the period of extended operation will be processed through the NRC's 10 CFR 50.55a relief request provisions after the operating license for the facility has been renewed.

3. RAI 3.6.1-4-1

In JAFNPP LRA Table 3.6.1-4, the applicant states that aging effects defined in NUREG 1801 are not applicable to the inaccessible medium-voltage cables which are not subject to 10 CFR 50.49 environmental qualification requirements.

The staff requests the applicant to provide the following information:

- a. A detailed explanation of how the review was conducted and the criteria used to determine that JAFNPP has no inaccessible medium voltage cables requiring aging management. Provide a list of cables considered for the review.
- b. If medium voltage safety-related cable such as residual heat removal service water pump is inaccessible, provide a technical justification of why an AMP is not required or provide an AMP that contains the required ten elements.

4. RAI 3.6.2-1

In JAFNPP LRA Table 3.6.2-1, the applicant states that 115 KV oil-filled cable (passive electrical for Station Blackout) has no aging effect requiring management for meeting the component's electrical intended function. The staff requests the applicant to provide a technical justification of why an AMP is not required or provide a plant-specific AMP that contains the required ten elements to manage the aging effects due to aging mechanisms such as insulation degradation, moisture intrusion, elevated operating temperature, and galvanic corrosion. In addition, explain what periodic tests are planned prior to and during the extended period of operation.

5. RAI Appendix B-1

In JAF LRA Section B.0.6, "Correlation with NUREG-1801 Aging Management Programs," the applicant states that the following NUREG AMPs are not applicable to JAFNPP:

1. XI.S7 - Regulatory Guide (RG) 1.127 Water Control Structures
2. XI.S8 - Protective Coating
3. X1.M23 - Inspection of Overhead Heavy Load and Light Load Handling Systems

1. Degradation of water-control structures has been detected, through RG 1.127 programs, at a number of nuclear power plants, and in some cases, required remedial actions. The staff requests the applicant to provide an AMP that contains the required ten elements or provide a technical justification of why an AMP is not required.

2. NRC Generic Letter 98-04 and RG 1.54, Rev. 1 describe industry experience pertaining to coatings degradation inside containment and the consequential clogging of sump strainers. Monitoring and maintenance of Service Level I coatings conducted in accordance with Regulatory Position C4 is expected to be an effective program for managing degradation of Service Level I coatings, and consequently an effective means to manage loss of material due to corrosion of carbon steel structural elements inside containment. The staff requests the applicant to provide a technical justification of why an AMP is not required or provide an AMP that contains the required ten elements.

3. Explain how the effects of general corrosion on the crane and trolley structural components for those cranes that are within the scope of 10 CFR 54.4, and the effects of wear on the rails in the rail system are managed at JAFNPP. The staff requests the applicant to provide a technical justification of why an AMP is not required or provide an AMP that contains the required ten elements.

6. RAI B.1.16.1-1

The staff notes that the “operating experience” attribute for containment in-service inspection aging management program (LRA AMP B.1.16.1) did not identify the recent operating experience related to torus cracking identified in 2005 at JAFNPP. The staff requests the applicant to provide a detailed discussion of this plant-specific operating experience and its impact on the aging management of torus in LRA.

FitzPatrick Nuclear Power Plant

cc:

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FitzPatrick Nuclear Power Plant

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