

Appendix A

Comments Received on the Environmental Review

Appendix A: Comments Received on the Environmental Review

On September 20, 2006, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the *Federal Register* (71 FR 55032) to notify the public of the NRC staff's intent to prepare a plant-specific supplement to the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2 (NRC 1996; 1999),^(a) related to the renewal application for the James A. FitzPatrick Nuclear Power Plant (JAFNPP) operating license and to conduct scoping. The plant-specific supplement to the GEIS has been prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) guidance, and Title 10 of the *Code of Federal Regulations*, Part 51 (10 CFR Part 51). As outlined by NEPA, the NRC initiated the scoping process with the issuance of the *Federal Register* Notice. The NRC invited the applicant; Federal, State, and local government agencies; Native American tribal organizations; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or submitting comments by November 14, 2006.

The scoping process included two public scoping meetings, which were held at the Town of Scriba Municipal Building in Oswego, New York, on October 12, 2006. The NRC issued press releases and distributed flyers locally. Approximately 14 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process. Following the NRC's prepared statements, the meetings were open for public comments. Three attendees provided either oral comments or written statements that were recorded and transcribed by a certified court reporter, and written comments were appended to the transcript. The transcripts of the meetings are an attachment to the meeting summary, which was issued on October 30, 2006 (meeting transcripts, ML063030195 and ML063030209; meeting summary, ML062980148). The documents are publicly available and can be found at the Agencywide Documents Access and Management System (ADAMS) at <http://adamswebsearch.nrc.gov/dologin.html> or through the NRC's Electronic Reading Room link at <http://www.nrc.gov>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC's Public Document Room staff at 1-800-397-4209 or 301-415-4737, or by email at pdr@nrc.gov.

At the conclusion of the scoping period, the NRC staff reviewed the transcripts and all written material received and identified individual comments. Each set of comments from a given commenter was given a unique alpha identifier (Commenter ID letter), allowing each set of

(1) The GEIS was originally issued in 1996. Addendum 1 to the GEIS was issued in 1999. Hereafter, all references to the "GEIS" include the GEIS and its Addendum 1.

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comments from a commenter to be traced back to the transcript, letter, or email in which the comments were submitted. Specific comments were numbered sequentially within each comment set. All of the comments received and the NRC staff responses are included in the JAFNPP Scoping Summary Report dated March 2, 2007 (ML070440393).

Comments were consolidated and categorized according to the topic within the proposed supplement to the GEIS or according to the general topic if outside the scope of the GEIS. Comments with similar specific objectives were combined to capture the common essential issues that had been raised in the source comments. Once comments were grouped according to subject area, the NRC staff determined the appropriate action for the comment.

Table A-1 identifies the individuals who provided comments applicable to the environmental review and the Commenter ID associated with each person's set(s) of comments. The individuals are listed in the order in which they spoke at the public meeting, and in the alphabetical order for the comments received by letter. To maintain consistency with the Scoping Summary Report, the unique identifier used in that report for each set of comments is retained in this appendix. The Commenter ID is preceded by FNP, which stands for James A. FitzPatrick Nuclear Power Plant. Accession numbers indicate the location of the written comments in ADAMS.

Specific comments were categorized and consolidated by topic. Comments with similar specific objectives were combined to capture the common essential issues raised by the commenters. The comments fall into one of the following general groups:

- Specific comments that address environmental issues within the purview of the NRC environmental regulations related to license renewal. These comments address Category 1 or Category 2 issues or issues that were not addressed in the GEIS. They also address alternatives and related Federal actions.
- General comments (1) in support of or opposed to nuclear power or license renewal or (2) on the renewal process, the NRC's regulations, and the regulatory process. These comments may or may not be specifically related to the JAFNPP license renewal application.
- Questions that do not provide new information.
- Specific comments that address issues that do not fall within or are specifically excluded from the purview of NRC environmental regulations related to license renewal. These comments typically address issues such as the need for power, emergency preparedness, security, current operational safety issues, and safety issues related to operation during the renewal period.

Comments applicable to this environmental review and the NRC staff's responses are summarized in this appendix. The parenthetical alpha-numeric identifier after each comment

refers to the comment set (Commenter ID) and the comment number. This information, which was extracted from the JAFNPP Scoping Summary Report, is provided for the convenience of those interested in the scoping comments applicable to this environmental review. The comments that are general or outside the scope of the environmental review for JAFNPP are not included here. More detail regarding the disposition of general or inapplicable comments can be found in the summary report. The ADAMS accession number for the Scoping Summary Report is ML070440393. This accession number is provided to facilitate access to the document through the Public Electronic Reading Room (ADAMS) at <http://www.nrc.gov/reading-rm.html>.

Comments in this section are grouped into the following categories:

- A.1.1 Aquatic Ecology
- A.1.2 Socioeconomics
- A.1.3 Postulated Accidents
- A.1.4 Uranium Fuel Cycle and Waste Management

Table A-1. Individuals Providing Comments During Scoping Comment Period

Commenters' ID	Commenter	Affiliation (If stated)	Comment Source, ADAMS Accession Number ^(a)
FNP-A	Ed Putnam	Candidate, New York State Assembly	Afternoon Scoping Meeting
FNP-B	Tim Judson	Citizens Awareness Network (CAN)	Evening Scoping Meeting
FNP-C	Tom Dellwo	CAN	Evening Scoping Meeting
FNP-D	Joseph J. Heath	General Counsel, Onondaga Nation	Letter (ML063240283)
FNP-E	Christopher M. Hogan	Project Manager, New York State Department of Environmental Conservation	Letter (ML063240331)

(a) The afternoon and evening transcripts can be found under accession numbers ML063030195 and ML063030209, respectively.

Part 1 — Comments Received During Scoping

A.1.1 Aquatic Ecology Issues

Comment: [Environmental Report] Appendix E; Section 4.2: Entrainment of Fish and Shellfish in Early Life Stages, and Section 4.3: Impingement of Fish and Shellfish Statements regarding previous Departmental Best Technology Available (BTA) decisions for FitzPatrick are overstated. While in 1996 and 2001 the Department determined that the high frequency/high amplitude acoustic fish deterrent system (FDS) was BTA for reducing impingement, the

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Department did not state that the FDS was BTA for reducing entrainment. In fact, the letter Entergy used as a reference specifically states, "Moreover, the fish deterrent system has not been evaluated as an entrainment mitigative device..." In addition, while the State Pollution Discharge Elimination System (SPDES) Permit Fact Sheet that accompanied the 1996 and 2001 SPDES permits discussed the *potential* benefit of the FDS for reducing alewife entrainment, it referenced the need for studies to determine the effectiveness of the FDS system on larval life stages of alewives. Requirements for these studies were made part of the SPDES permit, but Department records indicate that the study was never conducted.

Even if the study had been completed and the Department had made a BTA determination regarding entrainment, documented changes in the fish community in Lake Ontario (as described in Appendix E, Section 2.2.4 of the license renewal application) compel a review of previous determinations to determine if changes are warranted. To that end, Entergy is currently conducting biological sampling at FitzPatrick to determine the extent of current impacts. Data from this sampling will be included in a *Comprehensive Demonstration Study* that Entergy must submit to the Department in early 2008. A new BTA decision will be based, in part, on the *Comprehensive Demonstration Study*. Thus, conclusory statements that entrainment impacts do not warrant mitigation are premature. Decisions regarding the need for mitigation will be addressed via the SPDES permit process. (FNP-E-1)

Comment: [Environmental Report] Section 6.2 Mitigation. Entergy's contention that "the current permits, practices, and programs that mitigate the environmental impacts of plant operations are adequate (page 6-1)" are not necessarily accurate. For example, the decision regarding adequacy of mitigative measures for addressing impacts from impingement and entrainment will be addressed via the SPDES permit process. That permit process will address the adequacy of current practices and, if necessary, will result in requirements for additional measures to reduce impacts. In addition and as explained above, statements in Table 6-1 regarding past BTA determinations are overstated. (FNP-E-2)

Comment: Counter to statements contained in Section 4.2.6, Section 4.3.6, and Table 6-1, federal regulations do not require limiting the focus of mitigation requirements to impacts on fish *populations* (see 10 CFR 51.53(c) and 10 CFR 51.45(c)). In fact, the federal regulations dealing with impingement and entrainment at power plants focus on the reduction in the numbers of individual organisms (see 40 CFR 125-Subparts I and J). (FNP-E-3)

Response: *These comments are related to information regarding entrainment and impingement of fish and shellfish, as provided in the applicant's Environmental Report. Aquatic ecology will be discussed in Chapters 2 and 4 of the SEIS.*

A.1.2 Socioeconomic Issues

Comment: One of the economic factors which affects the retention of current industry in central New York and which also affects the attraction of new industry to this region is the provision of

inexpensive, trustworthy, and accessible power. We need this company to be a player in this attempt to bolster the economy of central New York. The Oswego County Public Utility Service offers "low cost electrical energy" to new and expanding business in Oswego County, in the hope that it will inspire new jobs and retain existing jobs through the low-cost electricity provided by Entergy at the FitzPatrick plant. This is a positive initiative, which has begun to be shared with the local economic community.

A similar form of utility incentive for domestic usage would be a welcome message to the residents of this region. It seems inconsistent that this community, which houses nuclear power plants, does not experience significant benefit from the presence. The economic downturn in this region is desperately in need of signs of recovery, and thus nuclear power industry has the capability of leading the way. (FNP-A-10)

Response: *The comments are related to the socioeconomic impacts specific to JAFNPP. Socioeconomic impacts such as taxes are Category 2 issues and will be addressed in Chapters 2 and 4 of the SEIS.*

A.1.3 Postulated Accidents

Comment: The operation of nuclear power plants is not without the potential for accidents, with serious consequences for both short and long term health in surrounding communities. (FNP-D-3)

Response: *The GEIS evaluated severe accidents and design basis accidents, and concluded the impact was small. During the environmental review of JAFNPP, the NRC will determine whether there is any new and significant information bearing on the previous analyses in the GEIS. Section 5.1.2 of the plant-specific SEIS for JAFNPP will address this issue. In addition, alternatives to mitigate severe accidents must be considered on a plant-specific basis for all plants that have not previously considered such alternatives. The applicant provided a severe accident mitigation alternatives (SAMA) analysis as part of the license renewal application for JAFNPP. The NRC staff's review of the SAMA analysis will be discussed in Section 5.2 and Appendix G of the SEIS for JAFNPP.*

A.1.4 Uranium Fuel Cycle and Waste Management Issues

Comment: From start to finish, the production of nuclear energy is fraught with hazards. The mining and enrichment of uranium produces radioactive isotopes that contaminate and degrade the surrounding environment. (FNP-D-2)

Comment: Finally, creation of nuclear energy leads to the accumulation of extremely hazardous, radioactive material that persists in the environment for tens of thousands of years.

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Additionally, this process creates byproducts, which, in a worst-case scenario, could be obtained and used to create dangerous weapons. (FNP-D-4)

Response: *Environmental impacts associated with the uranium fuel cycle were addressed in the GEIS. The GEIS concluded those impacts including the off-site radiological impact of storage, transportation, and disposal of spent fuel and other radioactive waste are Category 1 issues. The impact of these Category 1 issues was judged to be small in the GEIS. During the environmental review of JAFNPP, the NRC determine whether there is any new and significant information bearing on the previous analysis.*

Part 2 – Comments Received on Draft SEIS

The NRC staff transmitted the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding James A. FitzPatrick Nuclear Power Plant, Draft Report for Comment* (NUREG-1437, Supplement 31, referred to as the draft Supplemental Environmental Impact Statement [SEIS]) to Federal, State, and local government agencies; certain Indian tribes; and interested members of the public. As part of the process to solicit public comments on the draft SEIS, the NRC staff:

- placed a copy of the draft SEIS into the NRC's Public Electronic Reading Room, on its license renewal website, at the Penfield Library SUNY in Oswego, New York, and at the Oswego Public Library in Oswego, New York;
- published a notice of availability of the draft SEIS in the *Federal Register* on June 15, 2007 (72 FR 32924);
- issued public service announcements and press releases announcing the issuance of the draft SEIS, the public meetings, and instructions on how to comment on the draft SEIS; and
- announced and held two public meetings in Oswego, New York, on August 1, 2007, to describe the results of the environmental review and answer related questions.

During the comment period, the NRC staff received four comment letters, in addition to comments submitted during the public meetings. The public meeting transcripts and comment letters have been incorporated by reference and are available online in ADAMS. Appendix A, Part II, Section A.2 contains a summary of the comments and the NRC staff's responses. Related comments are grouped together for ease of reference, followed by the NRC staff's response. Where the comment resulted in a change in the text of the draft report, the corresponding response refers the reader to the appropriate section of this report where the change was made. Revisions to the text in the draft report are designated by vertical lines beside the text.

Each comment was assigned a specific alphanumeric identifier (marker). Table A-2 provides a cross-reference of the alphanumeric identifiers, the speaker or author of the comment, the page where the comment can be found, and the subsection(s) of this appendix. Oral and written comments are identified by a specific letter representing the commenter, followed by a number that identifies each comment in approximate chronological order in which the comments were made.

There was no significant new information provided on generic (Category 1) issues or information that caused the NRC staff to change their conclusions regarding site-specific (Category 2) issues. Therefore, the conclusions in the GEIS and draft SEIS remained valid and bounding, and no further evaluation was performed.

Table A-2. Individuals Providing Comments on the Draft SEIS

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
A-1	Mike Stevens	Afternoon Transcript, ML072260051	A.2.1
B-1	Gary Toth	Afternoon Transcript, ML072260051	A.2.1
C-1	Andrew Raddant, NYSDOI	Letter, ML072530436	A.2.5
C-2	Andrew Raddant	Letter, ML072530436	A.2.5
C-3	Andrew Raddant	Letter, ML072530436	A.2.4
C-4	Andrew Raddant	Letter, ML072530436	A.2.4
C-5	Andrew Raddant	Letter, ML072530436	A.2.4
C-6	Andrew Raddant	Letter, ML072530436	A.2.5
D-1	Jim Costedio, Entergy	Letter, ML072530437	A.2.2
D-2	Jim Costedio	Letter, ML072530437	A.2.2
D-3	Jim Costedio	Letter, ML072530437	A.2.2
D-4	Jim Costedio	Letter, ML072530437	A.2.2
D-5	Jim Costedio	Letter, ML072530437	A.2.2
D-6	Jim Costedio	Letter, ML072530437	A.2.2
D-7	Jim Costedio	Letter, ML072530437	A.2.11
D-8	Jim Costedio	Letter, ML072530437	A.2.11
D-9	Jim Costedio	Letter, ML072530437	A.2.11
D-10	Jim Costedio	Letter, ML072530437	A.2.11
D-11	Jim Costedio	Letter, ML072530437	A.2.9

Table A-2. (cont.)

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
D-12	Jim Costedio	Letter, ML072530437	A.2.9
D-13	Jim Costedio	Letter, ML072530437	A.2.9
D-14	Jim Costedio	Letter, ML072530437	A.2.9
D-15	Jim Costedio	Letter, ML072530437	A.2.9
D-16	Jim Costedio	Letter, ML072530437	A.2.11
D-17	Jim Costedio	Letter, ML072530437	A.2.9
D-18	Jim Costedio	Letter, ML072530437	A.2.9
D-19	Jim Costedio	Letter, ML072530437	A.2.9
D-20	Jim Costedio	Letter, ML072530437	A.2.9
D-21	Jim Costedio	Letter, ML072530437	A.2.9
D-22	Jim Costedio	Letter, ML072530437	A.2.11
D-23	Jim Costedio	Letter, ML072530437	A.2.11
D-24	Jim Costedio	Letter, ML072530437	A.2.2
D-25	Jim Costedio	Letter, ML072530437	A.2.11
D-26	Jim Costedio	Letter, ML072530437	A.2.11
D-27	Jim Costedio	Letter, ML072530437	A.2.11
D-28	Jim Costedio	Letter, ML072530437	A.2.3
D-29	Jim Costedio	Letter, ML072530437	A.2.11
D-30	Jim Costedio	Letter, ML072530437	A.2.4
D-31	Jim Costedio	Letter, ML072530437	A.2.11
D-32	Jim Costedio	Letter, ML072530437	A.2.11
D-33	Jim Costedio	Letter, ML072530437	A.2.11
D-34	Jim Costedio	Letter, ML072530437	A.2.11
D-35	Jim Costedio	Letter, ML072530437	A.2.11
D-36	Jim Costedio	Letter, ML072530437	A.2.11
D-37	Jim Costedio	Letter, ML072530437	A.2.11
D-38	Jim Costedio	Letter, ML072530437	A.2.11
D-39	Jim Costedio	Letter, ML072530437	A.2.11
D-40	Jim Costedio	Letter, ML072530437	A.2.7
D-41	Jim Costedio	Letter, ML072530437	A.2.11

Table A-2. (cont.)

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
D-42	Jim Costedio	Letter, ML072530437	A.2.7
D-43	Jim Costedio	Letter, ML072530437	A.2.2
D-44	Jim Costedio	Letter, ML072530437	A.2.2
D-45	Jim Costedio	Letter, ML072530437	A.2.11
D-46	Jim Costedio	Letter, ML072530437	A.2.11
D-47	Jim Costedio	Letter, ML072530437	A.2.11
D-48	Jim Costedio	Letter, ML072530437	A.2.11
D-49	Jim Costedio	Letter, ML072530437	A.2.11
D-50	Jim Costedio	Letter, ML072530437	A.2.11
D-51	Jim Costedio	Letter, ML072530437	A.2.11
D-52	Jim Costedio	Letter, ML072530437	A.2.11
D-53	Jim Costedio	Letter, ML072530437	A.2.11
D-54	Jim Costedio	Letter, ML072530437	A.2.11
D-55	Jim Costedio	Letter, ML072530437	A.2.11
D-56	Jim Costedio	Letter, ML072530437	A.2.11
D-57	Jim Costedio	Letter, ML072530437	A.2.11
D-58	Jim Costedio	Letter, ML072530437	A.2.11
D-59	Jim Costedio	Letter, ML072530437	A.2.11
D-60	Jim Costedio	Letter, ML072530437	A.2.11
D-61	Jim Costedio	Letter, ML072530437	A.2.2
D-62	Jim Costedio	Letter, ML072530437	A.2.11
D-63	Jim Costedio	Letter, ML072530437	A.2.11
D-64	Jim Costedio	Letter, ML072530437	A.2.11
D-65	Jim Costedio	Letter, ML072530437	A.2.11
D-66	Jim Costedio	Letter, ML072530437	A.2.11
D-67	Jim Costedio	Letter, ML072530437	A.2.11
D-68	Jim Costedio	Letter, ML072530437	A.2.11
D-69	Jim Costedio	Letter, ML072530437	A.2.11
D-70	Jim Costedio	Letter, ML072530437	A.2.11
D-71	Jim Costedio	Letter, ML072530437	A.2.11

Table A-2. (cont.)

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
D-72	Jim Costedio	Letter, ML072530437	A.2.11
D-73	Jim Costedio	Letter, ML072530437	A.2.11
D-74	Jim Costedio	Letter, ML072530437	A.2.11
D-75	Jim Costedio	Letter, ML072530437	A.2.11
D-76	Jim Costedio	Letter, ML072530437	A.2.11
D-77	Jim Costedio	Letter, ML072530437	A.2.11
D-78	Jim Costedio	Letter, ML072530437	A.2.11
D-79	Jim Costedio	Letter, ML072530437	A.2.11
D-80	Jim Costedio	Letter, ML072530437	A.2.11
D-81	Jim Costedio	Letter, ML072530437	A.2.11
D-82	Jim Costedio	Letter, ML072530437	A.2.11
D-83	Jim Costedio	Letter, ML072530437	A.2.11
D-84	Jim Costedio	Letter, ML072530437	A.2.10
D-85	Jim Costedio	Letter, ML072530437	A.2.10
D-86	Jim Costedio	Letter, ML072530437	A.2.11
D-87	Jim Costedio	Letter, ML072530437	A.2.11
D-88	Jim Costedio	Letter, ML072530437	A.2.10
D-89	Jim Costedio	Letter, ML072530437	A.2.11
D-90	Jim Costedio	Letter, ML072530437	A.2.11
D-91	Jim Costedio	Letter, ML072530437	A.2.11
D-92	Jim Costedio	Letter, ML072530437	A.2.10
D-93	Jim Costedio	Letter, ML072530437	A.2.10
D-94	Jim Costedio	Letter, ML072530437	A.2.10
D-95	Jim Costedio	Letter, ML072530437	A.2.11
D-96	Jim Costedio	Letter, ML072530437	A.2.11
D-97	Jim Costedio	Letter, ML072530437	A.2.11
D-98	Jim Costedio	Letter, ML072530437	A.2.11
D-99	Jim Costedio	Letter, ML072530437	A.2.11
D-100	Jim Costedio	Letter, ML072530437	A.2.11
D-101	Jim Costedio	Letter, ML072530437	A.2.11

Table A-2. (cont.)

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
D-102	Jim Costedio	Letter, ML072530437	A.2.11
D-103	Jim Costedio	Letter, ML072530437	A.2.11
D-104	Jim Costedio	Letter, ML072530437	A.2.11
D-105	Jim Costedio	Letter, ML072530437	A.2.11
D-106	Jim Costedio	Letter, ML072530437	A.2.11
D-107	Jim Costedio	Letter, ML072530437	A.2.11
D-108	Jim Costedio	Letter, ML072530437	A.2.11
D-109	Jim Costedio	Letter, ML072530437	A.2.11
D-110	Jim Costedio	Letter, ML072530437	A.2.11
D-111	Jim Costedio	Letter, ML072530437	A.2.11
D-112	Jim Costedio	Letter, ML072530437	A.2.11
D-113	Jim Costedio	Letter, ML072530437	A.2.11
D-114	Jim Costedio	Letter, ML072530437	A.2.11
D-115	Jim Costedio	Letter, ML072530437	A.2.11
D-116	Jim Costedio	Letter, ML072530437	A.2.11
D-117	Jim Costedio	Letter, ML072530437	A.2.11
D-118	Jim Costedio	Letter, ML072530437	A.2.11
E-1	John Filippelli, EPA Region 2	Letter, ML072530439	A.2.4
E-2	John Filippelli	Letter, ML072530439	A.2.9
E-3	John Filippelli	Letter, ML072530439	A.2.4
E-4	John Filippelli	Letter, ML072530439	A.2.6
E-5	John Filippelli	Letter, ML072530439	A.2.2
E-6	John Filippelli	Letter, ML072530439	A.2.8
E-7	John Filippelli	Letter, ML072530439	A.2.4
E-8	John Filippelli	Letter, ML072530439	A.2.9
F-1	Christopher Hogan, NYSDEC	Letter, ML063240331	A.2.4
F-2	Christopher Hogan	Letter, ML063240331	A.2.4
F-3	Christopher Hogan	Letter, ML063240331	A.2.4

Table A-2. (cont.)

Commenters' ID	Commenter and Affiliation (if stated)	Comment Source and ADAMS Accession Number	Section Where Addressed
G-1	David Stilwell, FWS	Letter, ML032000110	A.2.5
G-2	David Stilwell	Letter, ML032000110	A.2.5
G-3	David Stilwell	Letter, ML032000110	A.2.5
G-4	David Stilwell	Letter, ML032000110	A.2.5
G-5	David Stilwell	Letter, ML032000110	A.2.5

No comments were submitted at the evening meeting. However, the transcripts can be found under accession number ML072260053.

NYSDOI – New York State Department of Interior

EPA – Environmental Protection Agency

NYSDEC – New York State Department of Environmental Conservation

FWS – U.S. Fish and Wildlife Service

A.2 Comments and Responses

Comments in this section are grouped in the following categories:

- A.2.1 General Comments in Support of License Renewal at JAFNPP
- A.2.2 Comments Concerning Water Use and Quality
- A.2.3 Comments Concerning Air Quality
- A.2.4 Comments Concerning Aquatic Resources
- A.2.5 Comments Concerning Terrestrial Resources
- A.2.6 Comments Concerning Radiological Impacts
- A.2.7 Comments Concerning Socioeconomic Factors
- A.2.8 Comments Concerning Postulated Accidents
- A.2.9 Comments Concerning Uranium Fuel Cycle and Waste Management
- A.2.10 Comments Concerning Alternatives
- A.2.11 Editorial Comments

A.2.1 General Comments in Support of License Renewal at JAFNPP

Comment: I was born and raised just within a few miles of Nine Mile Point. My family and I live less than a mile from the plant, on the lake, in our home, where we will expect to be retiring in. I came in today just to state that I'm in favor of the license extension. My feelings are based on several facts. The plant operation, as most of you know, is closely monitored, as you can see

here today, and regulated. There's FEMA, the NRC, the EPA, etcetera. Redundant safety systems at the plant protect the public and all of our vital equipment. The equipment receives preventative maintenance to ensure reliability in case of any need for it. Even the most simplistic tasks are completed using written procedure to ensure success and accuracy. Drills and the use of equipment simulators ensure training is effective for all workers, and that the workers are prepared for anything. Safe operation and a strong safety culture is always number one at the station. Spent nuclear fuel is stored safely in heavy sealed containers, protecting it from all natural or manmade disasters, unlike most other stations in the U.S. The lack of emissions make operation environmentally friendly, and a positive impact to the local economy and tax base, as we all know. Power consumption is increased to date, and no new plants have been started, and nuclear power reduces our demand on foreign oil. As you might think, my knowledge of these facts is because I work at J.A.F. I'm not here as an employee today. I'm here as a concerned resident. I'll retire long before the license extension is needed, and will continue to draw my pension, with or without the continued operation of FitzPatrick. I'm making my feelings known for the good of the community and not the interests of the company that I happen to work for. The general public would feel the same way that I do, if they knew what the workers already know, that the plant is safe, the redundant systems protect the health and safety of the public. We, as in residents, should be more concerned of potential emissions such as coal dust, arsenic, methane, carbon dioxide from the proposed coal gassification plant which will be processing 20,000 tons of coal a day, or the damage to our fish population by the latest invader called the round goby, which I've caught a million of in the lake recently. Or the newest virus infection that the fish are infested with, which is called VHS. (A-1)

Comment: I'm a life-long resident of Oswego County, and I'm also the business manager of Carpenters Local 747, and I came today in support of the license renewal for the FitzPatrick nuclear plant. I have about 425--I checked my registration. I have about 425 members who live right in Oswego County. A lot of them live in the Oswego school district and in Scriba, and I tell you, we have a lotta guys that work at the plant. They're in there, and out, quite a bit. To a man, everyone has gone in that plant, done their job, and come out safely. That plant is operated very safely, very well. I worked at that plant. I worked with divers. I worked in some of the more restricted areas. I didn't help build the plant cause it was a little before my time. But I can attest through our membership, and the people that work there, that's a very well-run plant, a very well-maintained plant, a very safe plant. I live about ten miles east of here, towards Mexico, actually west of here, towards Mexico, and I'm the third generation here. I'm very comfortable with this plant operating for another 20 years beyond its license renewal--or beyond its license date. So again, I stand here on behalf of about 420 members and their families, and myself, as a resident, in support of the license renewal. (B-1)

Response: *The comments, general in nature, are supportive of license renewal at James A. FitzPatrick Nuclear Power Plant. However, the comments provide no new additional information on the environmental analysis; therefore, there were no changes made to the Supplemental EIS.*

A.2.2 Comments Concerning Water Use and Quality

Comment: Page 2-20, Lines 8-12: While the use of Betz Clam-Trol CT-1 is still allowed by the JAF SPDES Permit, it has not been used in at least 10 years. Correspondingly, remove references to it from line 8 through line 12. (D-24)

Response: *Lines 8-12 have been amended to note that although JAFNPP is permitted by the state to use Betz Clam-Trol CT-1, it has not been used in over 10 years.*

Comment: Page 4-23, Lines 8-12: Remove from "As such..." on line 8 to "...thermal criteria." on line 12 as this is not a requirement of the current SPDES permit. (D-61)

Response: *Lines 8-12 have been corrected to reflect that thermal monitoring is not a condition of the current SPDES permit, however, Outfall Number 001 - Circulating Cooling Water, Service Water & Intake Screen Backwash, is subject to thermal limitations specified in the SPDES permit.*

Comment: The final SEIS should discuss any actions the licensee may have taken to follow-up on the NRC information notices informing operators of nuclear power and research and test reactors of the potential for onsite groundwater contamination due to undetected leakage of radioactive water. (E-5)

Response: *A description of Entergy's leakage monitoring program has been added to Section 2.2.7 in response to this comment.*

Comment: In Section 2.2.10.2 of the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Supplement 31 Draft Report for Comment (SEIS) for Entergy Nuclear FitzPatrick's, LLC (Entergy), James A. FitzPatrick Nuclear Power Plant (JAFNPP), the U.S. Nuclear Regulatory Commission (NRC) states that "[u]ntil NYSDEC has issued a Section 401 Water Quality Certification*for JAFNPP, the NRC will not be able to grant the license renewal." Entergy respectfully submits that § 401 of the Clean Water Act, 33 U.S.C. § 1341 does not apply in the license renewal context and, even if it does apply, Entergy has satisfied its § 401 obligations by submitting to the Commission copies of its currently effective State Pollutant Discharge Elimination Permit ("SPDES") permit issued by the New York Department of Environmental Conservation ("DEC"). (DEC is authorized to implement the NPDES permitting program. See 6 NYCRR § 750-01.1.) Accordingly, the Commission need not await any further DEC action in order to grant the license renewal. (Entergy voluntarily submitted an application to DEC for a certification under § 401 and is proceeding with the collection and submittal of information solicited by DEC for that purpose. However, Entergy has reserved its rights to raise any legal arguments in that proceeding, including whether a § 401 WQC is required to renew its NRC license. See JAFNPP's Applicant Environmental Report, at 9-2 ("consistent with the FEIS, JAFNPP is providing the copy of its SPDES permit as evidence of state water quality (401) certification"). (D-1)

Comment: 1. The renewal of JAFNPP's license will not result in any new, currently unauthorized discharge to waters of the United States.

Section 401 of the CWA provides, in relevant part, that:

[a]ny applicant for a Federal license or permit to conduct any activities including, but not limited to, the construction or operation of facilities, which may result in any *discharge* into navigable waters, shall provide the licensing or permitting agency a certificate from the State in which the discharge originates or will originate, ... , that *any such discharge will comply with the applicable provisions* of sections 1311, 1312, 1313, 1316, and 1317 of this title.

33 U.S.C. § 1341(a) (emphasis supplied). The renewal of the NRC license for JAFNPP will not, in and of itself, result in a discharge to navigable waters. While license renewal is a necessary condition to the continued operation of JAFNPP beyond the current license period, the Commission's inquiry is focused on the effect on nuclear safety of the aging of certain components over the extended license period, 10 CFR § 54.29. The Commission's determination to renew the license, therefore, does not address nor contemplate any new and currently unregulated discharge into waters of the United States. Moreover, any new or modified discharge by JAFNPP could only occur through re-issuance or modification by DEC of its SPDES permit which, as discussed below, assures compliance with all applicable Clean Water Act requirements. Therefore, certification under § 401 is not required for the Commission's license renewal decisions. (D-2)

Comment: 2. Even if § 401 applies to the Commission's license renewal decision, Entergy has satisfied any such requirements by submitting to the Commission a copy of its currently effective SPDES permit.

To the extent applicable, Section 401 requires only that the applicant for a federal license submit a certification from the State that future discharges will comply with the identified provisions of the Clean Water Act. The submission to the Commission of a currently effective SPDES permit is sufficient for this purpose.

Both New York and federal law expressly require that SPDES permits be issued only where the subject discharge will comply with the very same provisions identified in § 401, i.e., §§ 301, 302, 303, 306 and 307 of the Clean Water Act. See 33 U.S.C. §§ 1342(b)(1)(A) (requiring SPDES permits to ensure compliance with, among others, §§ 301, 302, 306, and 307 of the Clean Water Act); 1311(b)(1)(C) (requiring compliance with state WQS); see also 40 C.F.R. §§ 122.44(d)(1) (NPDES permits must achieve WQS established under § 303 of the CWA, including State narrative criteria for water quality); 123.25(a)(15) (requiring same for SPDES permits); see also 6 NYCRR § 750-1.11 (imposing same requirements for SPDES permits). In fact, the currently effective JAFNPP SPDES permit expressly states that DEC has determined that operation in compliance with that permit assures compliance with applicable water quality standards. See JAFNPP SPDES Permit No. NY-0020109, General Provision 1(b) ("a

determination has been made on the basis of a submitted application, plans, or other available information, that compliance with the specified permit provisions will reasonably protect classified water use and assure compliance with applicable water quality standards."); see also 6 NYCRR § 750-2.1 (b). Accordingly, every element of a § 401 certification is satisfied by the submission of JAFNPP's effective SPDES permit. Any further certification under § 401 would be entirely redundant.

JAFNPP currently discharges, and intends to continue to discharge if re-licensed, in compliance with its SPDES permit or subsequent renewals thereof. (As the SEIS notes, on January 24, 2006, JAFNPP applied for a renewal of its New York SPDES permit, which was scheduled to expire on August 1, 2006. Until the JAFNPP renewal permit is finalized, the existing SPDES permit remains in effect. See SEIS at 4-14.) As noted above, the license renewal for JAFNPP does not involve any new discharge and, therefore, operations during the extended license period already has been determined by DEC to be in compliance with the provisions cited in § 401. Moreover, under the New York SPDES program, water quality determinations will be routinely revisited, both during the current license period and any extended license period, affording the State multiple opportunities to reassess water quality issues. See 6 NYCRR § 750-1.15 (SPDES permits for surface water discharges have a fixed term of five years); see also 6 NYCRR § 750-2.1(b) (authorizing modifications to SPDES permits where even compliant operations contribute to contravention of State water quality standards). (D-3)

Comment: 3. Based upon our review of NRC practice in the license renewal context, the Commission has relied on the submission of NYSPDES permits as satisfying the licensee's obligations (if any) under § 401.

NRC guidance confirms that a § 401 certification is not required for re-licensing where the facility discharges under an effective SPDES permit. See NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG 1437, Volume 1 ("GEIS"), at 4-4 ("Of course, issuance of an NPDES permit by a state water quality agency implies certification under Section 401.") [See also GEIS, §§ 2.3.3 ("effluent discharges are regulated under the provisions of the Clean Water Act and the implementing effluent guidelines, limitations, and standards established by EPA and the states."), 4.2.1.1 ("Once a plant is operating, however, the continuing regulation of nonradiological impacts on water quality and aquatic ecology is primarily the responsibility of [EPA] or the applicable state permitting agency."); see also 56 Fed. Reg. 47,016, 47,019 (September 17, 1991) (with respect to the aquatic impacts of entrainment, impingement, and heat shock stating that "[t]he permit process authorized by the [CWA] is an adequate mechanism for control and mitigation of these potential impacts. If an applicant to renew a license has appropriate EPA or State permits, further NRC review of these potential impacts is not warranted. Therefore, the proposed rule requires an applicant to provide the NRC with certification that it holds [CWA] permits, or if State regulation applies, current State permits."); 61 Fed. Reg. 28467, 28474 (June 5, 1996) ("As a result of this analysis, the Commission has concluded that the environmental impacts on surface water quality are small for those effluents subject to existing permit or certification requirements.").

NRC appears to have invariably followed this practice in the license renewal context, because our review indicates that none of the other SEISs issued for license renewals expressly requires the issuance of a § 401 certification by the state prior to license renewal. (Although the state of New York issued contingent § 401 WQCs for the Ginna and Nine Mile Point nuclear stations, these documents were WQCs in name only because they expressly deferred to the New York SPDES program for demonstrating compliance with the Best Technology Available standard under 6 NYCRR § 704.5. See e.g., October 7, 2003, 2006 § 401 WQC for Ginna, Natural Resource Permit Condition #4 ("Best Technology Available (BTA) Determination. A BTA determination will be conducted, pursuant to the SPDES permit, by the Department to determine if the facility meets the regulatory criteria to minimize adverse environmental impacts to aquatic species and whether any mitigation is required. Upon evaluation by the Department of the submitted studies, the Department will determine whether additional BTA measures will be needed, for which Mitigation Plans will need to be developed, submitted, and completed in consultation with Department staff."); see also June 21, 2006 § 401 WQC for Nine Mile Point, Natural Resource Permit Condition #2 ("Best Technology Available (BTA) Determination. Pursuant to 6 NYCRR Part 704 and Section 316(b) of the Clean Water Act a Best Technology Available (BTA) determination will be conducted for the facility as part of the renewal of the State Pollutant Discharge Elimination (SPDES) permit. The BTA determination is based on whether the facility meets the regulatory criteria to minimize adverse environmental impacts to aquatic species. Biological studies will be required by the SPDES permit, and will be used by the Department to determine whether additional measures are needed to achieve BTA. As necessary, Mitigation Plans will need to be developed, submitted, and completed in consultation with Department staff."). Therefore, the Commissions' change of course in the SEIS constitutes a change in NRC procedures without any change in the underlying law. Entergy respectfully submits that such a deviation is improper. (D-4)

Comment: 4. If the Commission persists in requiring a separate certification from DEC, Entergy reserves its rights to demonstrate to the Commission that it falls within the statutory exceptions to certification provided under § 401.

Section 401 contains several statutory exemptions from the requirement to obtain a State certification, including those set forth in §§ 401(a)(3) and (a)(6). Federal case law confirms that the NRC is the proper entity to determine whether either of the § 401 WQC exceptions apply here. See *Keating v. FERC*, 927 F.2d 616, 625 (D.C. Cir. 1991) ("the application of section 401 (a)(3) involves a federal question that, absent satisfactory explanation, presumably must be resolved by the applicable federal licensing authority and the federal courts"). Thus, here again, a § 401 certification by the state prior to license renewal is not required.

Further, if the Commission concludes that a separate § 401 certification is required (i.e., something other than the submission of the currently effective SPDES permit), Entergy reserves its right to submit documentation to the Commission supporting the application of these exemptions to JAFNPP. (D-5)

Comment: Conclusion: In short, although JAFNPP is working with the State on a voluntary and collaborative basis, as a matter of federal and state law, the JAFNPP license renewal does not require a § 401 WQC. As detailed above, this is because § 401 does not apply in the license renewal context and, even if it does apply, Entergy has satisfied its § 401 obligations by submitting to the Commission copies of its currently effective SPDES permit issued by the DEC. To the extent the Commission requires any further certification under § 401, Entergy reserves its right to request from the Commission an exemption from such requirements. (D-6)

Response: *Section 54.23 ("Contents of application -- environmental information") of the NRC's nuclear power plant operating license renewal regulations states that each license renewal application must include a supplement to the environmental report that complies with the requirements of subpart A of 10 CFR Part 51. Section 51.45(d) ("Environmental report"), in turn, requires the applicant to list in the environmental report "all federal permits, licenses, approvals and entitlements which must be obtained in connection with the proposed action," and to "describe the status of compliance with these requirements." This section further states that the environmental report shall discuss "the status of compliance with applicable environmental quality standards and requirements, including, but not limited to ... thermal and other water pollution limitations or requirements which have been imposed by Federal, State, regional, and local agencies having responsibility for environmental protection." 10 CFR 51.45(d); see also 10 CFR 51.53 (stating that the environmental report "must describe in detail the modifications directly affecting the environment and plant effluents that affect the environment"). The necessary implication of these provisions is that license renewal applicants must discuss and document continued Section 401(a) (1) certification into the renewal period.*

Although evidence of continued certification into the renewal period is required, we do not believe that an entirely new Section 401(a)(1) certification must always be tendered as part of the renewal application. If the original Section 401(a)(1) certification did not include an expiration date, or if the expiration occurs in the renewal period, then a new certification is not necessary (although once the certification expires the licensee must provide a new certification). Alternatively, certification may be evidenced by a valid state water quality permit which is effective into the renewal period (again, if the state water permit expires in the renewal period, a new certification would then be necessary). However, if a state has a bifurcated process then evidence of a Section 401(a)(1) certification will be required before issuance of a renewed license. Furthermore, the NRC will consider if Entergy falls within any of the statutory exemptions to 401 certifications.

All applicants for license renewal, in accordance with Section 51.45, should state in their renewal application whether their facility will possess continuing Section 401(a)(1) certification into the renewal period, and the basis for their conclusion on this matter.

Comment: Page 2-54, Line 9: Replace "draft" with "final". (D-43)

Comment: Page 2-54, Line 12: Replace "draft" with "final". (D-44)

Response: *The text in Section 2.2.10 has been changed in response to the comments.*

A.2.3 Comments Concerning Air Quality

Comment: Page 2-23, Lines 21-24: Should read as follows: "The emergency diesel generators, fire pumps and boilers are regulated under a Certificate to operate an Air Contamination Source (7-3556-00020/00012) issued by NYSDEC. This certificate limits fuel usage, fuel type, and hours of operation for the three sets of equipment." (D-28)

Response: *The text has been changed as follows: "The emissions from the emergency diesel generators, fire pumps and boilers are regulated under a Certificate to operate an Air Contamination Source (7-3556-00020/00012) issued by NYSDEC. This certificate limits fuel usage, fuel type, and hours of operation for these emission sources."*

A.2.4 Comments Concerning Aquatic Resources

Comment: The Service considers the entrainment of fish to be one of the most significant adverse environmental effects of this facility. The DGEIS utilizes entrainment data from the adjacent Nine Mile 1 Nuclear Power Plant (Nine Mile 1) as an estimate of entrainment at this facility since the intake and cooling systems are similar (and no entrainment data exists for FitzPatrick). According to the DGEIS, the number of entrained fish eggs and larvae entrained at Nine Mile 1 have varied throughout its operation. The DGEIS cites that in 1976, approximately 350 million alewife (*Alosa pseudoharengus*) eggs, 4.9 million alewife larvae, 1.5 million rainbow smelt (*Osmerus mordax*) eggs, and 205,000 rainbow smelt larvae were entrained per week. A 1997 entrainment study showed lower numbers of entrained fish – approximately 4 to 5 million ichthyoplankton per week over the period of April through August.

The DGEIS characterizes these entrainment losses as "small", defined as "environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource." We disagree that entrainment losses of at least 4 to 5 million fish larvae and eggs per week are "small" and believe it is inappropriate to draw conclusions about the significance of this mortality by comparing entrained numbers against an estimated standing stock. The DGEIS does not provide information to support its estimate of alewife or rainbow smelt standing stocks in the U.S. waters of Lake Ontario, nor does it explain why the only "important resource attributes" evaluated in making a determination of "small impacts" are fish standing stock numbers within Lake Ontario. It may be equally appropriate to evaluate the impact of FitzPatrick entrainment on other important resource attributes, such as age structure within a given fish species or a specified sub-basin within Lake Ontario or impacts of entrainment on fish community structure. (C-3)

Response: *The NRC must evaluate impingement and entrainment in terms of impact to the environment, thus requiring the staff to develop methods to quantitatively evaluate the impact of*

impingement and entrainment on the affected fishery. To determine these quantitative impacts, NRC staff must use available population data, which for the JAFNPP review was population estimates of alewife and rainbow smelt in U.S. waters from 1982 through 2001. These U.S. waters estimates came from unpublished data compiled by Rochester Gas & Electric Corporation.*

*While the NRC agrees there is no indication that all fish species being impinged and entrained at JAFNPP function as a single lake-wide population, there is also no evidence that there are distinct populations specific to U.S. waters or to the Rochester sub-basin of Lake Ontario. The fish species of interest and most affected by the JAFNPP cooling water system include alewife (*Alosa pseudoharengus*) and rainbow smelt (*Osmerus mordax*), both of which are pelagic species and likely do not remain in one area of the lake. Even if the U.S. waters population estimates were roughly divided to reflect local (Nine Mile Point promontory) population estimates, the effects of impingement and entrainment on either of these two species at JAFNPP would still be categorized by the NRC as SMALL.*

The assessment presented in the SEIS will be based on the best available information, drawing from a variety of sources, including data collected at JAFNPP by Entergy, data collected at Nine Mile Point Nuclear Station Unit 1, the New York State Department of Environmental Conservation (NYSDEC), other governmental agencies, and independent researchers. The NRC staff recognizes that the amount and quality of data available for NEPA evaluations is sometimes less than desired; however, the staff believes that there was sufficient information available to perform the assessment of the impacts of license renewal at JAFNPP. If new and significant information becomes available in the future that demonstrates a significant impact on the aquatic environment as a result of continued station operation, the NRC staff expects the NYSDEC to require modifications to the cooling system necessary to protect the resource through the New York State Pollutant Discharge Elimination System (SPDES) and 401 Certification permitting program. The comment provides no new and significant information; therefore, no changes were made to the text in response to the comment.

**Rochester Gas & Electric Corporation. Population Estimates for Alewife and Rainbow Smelt in Lake Ontario, 1982-2001. Unpublished Data. 2003*

Comment: The DGEIS should quantitatively evaluate FitzPatrick entrainment losses within the context of other fishery impacts, particularly since the DGEIS indicates that both alewife and rainbow smelt have declined lake-wide and the status of Lake Ontario's alewife population is of concern. The cumulative impacts assessment presented in the DGEIS mentions entrainment at adjacent nuclear power plants, nearby oil and gas-fired power plants, and hydroelectric facilities along the Oswego River. We recommend that a more thorough cumulative impact analysis be performed that quantitatively evaluates all significant sources of entrainment within the Lake Ontario basin. This would include addressing entrainment at all Lake Ontario power plants, as well as at hydroelectric facilities on all Lake Ontario tributaries. In that FitzPatrick entrainment

losses are expressed in terms of a percentage of the Lake Ontario fish standing stocks, cumulative impacts should be evaluated for all of Lake Ontario. (C-4)

Response: *Section 4.8.1 Cumulative Impacts on Aquatic Resources in the JAFNPP SEIS will be revised to evaluate cumulative impacts on a lake-wide basis, to be consistent with the entrainment and impingement reviews which reference U.S. waters population estimates for alewife and rainbow smelt.*

The NRC staff recognizes that further studies may be required for JAFNPP under the New York SPDES and 401 Certification permitting process. The studies may result in additional mitigation measures for this facility. However, based on a comprehensive review of the information currently available, the NRC staff concluded that losses of fish and shellfish from impingement and entrainment at JAFNPP are SMALL and additional mitigation is not warranted at this time. A reduction in entrainment losses due to further mitigation would not be expected to have a detectable effect at the population level. The conclusion of SMALL impact for entrainment and impingement is based on an assessment of losses of individuals due to plant operation to the population estimates of alewife and rainbow smelt in U.S. waters of Lake Ontario. Furthermore, the NRC's regulatory jurisdiction is limited to the characterization and quantification of impacts in accordance with NEPA. The U.S. EPA and the NYSDEC have the regulatory authority to require JAFNPP compliance with the requirements of the Clean Water Act (CWA). The need to operate JAFNPP using closed cycle cooling or restore spawning habitat to mitigate impacts on aquatic resources is subject to a determination by New York State under the CWA and could become a condition of future SPDES and 401 Certification permitting. The comment provides no new and significant information; therefore, no changes were made to the SEIS in response to this comment.

Comment: We note that Nine Mile 1 has an intake flow of 418 million gallons per day, less than the 518 million gallons per day of intake flow at FitzPatrick. We also understand that on-site entrainment data are being collected at FitzPatrick. These data should be used in lieu of the Nine Mile 1 data to better estimate fish entrainment losses and should be provided to the Service for their review.

The Department recommends that the NRC evaluate alternatives to mitigate the entrainment losses at FitzPatrick, including modifying the cooling system from a once through system to a closed cooling system and other potential fish entrainment mitigation methods, including enhancing/restoring spawning habitat for the species most affected by the facility. (C-5)

Response: *As noted in the SEIS, Entergy is proceeding with further entrainment studies. Preliminary, unpublished results from these studies support the assertion that JAFNPP's off-shore intake structure reduces the amount of fish eggs and larvae entrained into the cooling system, and both the off-shore location of the intake and the fish deterrence system reduce the amount of fish impinged. At the time of publication of the final SEIS, the results of the studies will not be available for inclusion in the entrainment and impingement evaluations. If new and*

significant information becomes available in the future that demonstrates an impact greater than SMALL on the aquatic environment as a result of continued station operation, the NRC staff expects the NYSDEC to require modifications to the cooling system necessary to protect the resource through the SPDES and 401 Certification permitting program. The comments provided no new and significant information; therefore, there were no revisions to Sections 4.1.1 and 4.1.2 of the SEIS.

Comment: Page 4-19, Table 4-4: Numbers in Table 4-4 do not match numbers in the text on pg 4-18, lines 31-35. Numbers in text are correct. (D-60)

Response: *Table 4.4 has been corrected to reflect the percentages of actual number of fish taken from the intake screens (corrected for collection efficiencies) during the 2004 impingement monitoring program. The percentages in the text refer to the 2004 impingement rates that were calculated using plant flow: the text has also been amended to make this clear.*

Comment: Page 2-26, Line 28: Pg 2-24, line 12 says the Port of Oswego is "approximately 6 miles west of JAFNPP". This distance should be consistent, either 4 or 6 miles in both places? (D-30)

Response: *The distance given on page 2-26 has been changed to 6 miles to be consistent with the distance given on page 2-24.*

Comment: We have concerns with the impacts due to entrainment and impingement of fish and shellfish, and an inadequate cumulative impacts analysis. (E-1)

Response: *Section 4.8.1, Cumulative Impacts on Aquatic Resources, in the JAFNPP SEIS will be revised to evaluate cumulative impacts on a lake-wide basis, to be consistent with the entrainment and impingement reviews which reference U.S. waters population estimates for alewife and rainbow smelt.*

Comment: EPA is concerned that the information being used to determine the potential impact of the use of cooling water on the entrainment of organisms is dated and that the determination does not take into account the changes in fisheries stocks that have been seen in Lake Ontario. The ichthyoplankton entrainment estimates are made by extrapolating data from a 1997 Study performed near the Nine Mile Point Nuclear Station. Not only is that data ten years old, but, as stated in the draft SEIS, the fisheries species in Lake Ontario have changed rapidly over the past 10 years with decreasing numbers of alewife and increasing numbers of invasive aquatics, such as quagga mussels (*Dreissena bugensis*). Also, the draft SEIS points out that studies done in the 1980s and 1990s have shown a decline in zooplankton and algal abundance, and implies an increased competition between smaller fish and other invertebrates for zooplankton prey. Clearly, the existing condition of the Lake is different from what it was in the 1990s.

The NRC concludes that the potential impacts of the use of once-through cooling water to fish and shellfish are small. This conclusion may be premature, particularly when there is a current

study that will provide new information concerning the significance of the impact. The draft SEIS states that on January 24, 2006, JAFNPP applied for a renewal of its New York SPDES permit, and as part of that program, JAFNPP recently conducted a one-year entrainment sampling program, which concluded in March 2007. While NRC states that it reviewed preliminary data from this study, the entire dataset should be analyzed and presented within the final SEIS. The Council on Environmental Quality's NEPA regulations state that relevant environmental documents should be made part of the record. A small delay in releasing the final SEIS should not interfere with the relicensing date of 2014, and will allow the public and interested parties to examine the new data. (E-3)

Response: *Based on the information currently available, the NRC staff concluded that losses of fish and shellfish from impingement and entrainment are SMALL when compared to alewife and rainbow smelt fishery in U.S. waters. These U.S. waters estimates came from unpublished data compiled by Rochester Gas & Electric Corporation*. Due to the lack of entrainment data for JAFNPP, the NRC used the best available data, which was an entrainment study conducted at Nine Mile Point Nuclear Stations Unit 1 in 1997. The NRC staff recognizes that the amount and quality of data available for NEPA evaluations sometimes fall short of ideal, but believes that there was sufficient information available to perform an assessment of the impacts of license renewal at JAFNPP.*

As noted in the SEIS, Entergy is proceeding with further entrainment studies. Preliminary, unpublished results from these studies support the assertion that JAFNPP's off-shore intake structure reduces the amount of fish eggs and larvae entrained into the cooling system, and both the off-shore location of the intake and the fish deterrence system reduce the amount of fish impinged. At the time of publication of the final SEIS, the results of the studies will not be available for inclusion in the entrainment and impingement evaluations. If new and significant information becomes available in the future that demonstrates a significant impact on the aquatic environment as a result of continued station operation, the NRC staff expects the NYSDEC to require modifications to the cooling system necessary to protect the resource through the SPDES and 401 Certification permitting program. The comment provides no new and significant information; therefore, no changes were made to the SEIS in response to this comment.

**Rochester Gas & Electric Corporation. Population Estimates for Alewife and Rainbow Smelt in Lake Ontario, 1982-2001. Unpublished Data. 2003*

Comment: Page 4-13,14 - Draft NUREG-1437, Supplement 31.— The NRC should not use fish populations in the entire water body (Lake Ontario) to determine the significance of impacts regarding impingement and entrainment. NRC uses the following standards to categorize environmental impacts (10 CFR Part 51 (Footnote 3, Table B-1)):

SMALL - Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

Appendix A

MODERATE - Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE - Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

While it is logical to look at fish when analyzing potential impingement and entrainment impacts from the continued operation of FitzPatrick, NRC standards do not require a broad scale evaluation limited to consideration of lake-wide fish populations. There is no indication that all fish species being impinged and entrained at FitzPatrick function as a single lake-wide population. Moreover, New York State is entrusted with the conservation of fisheries resources at a finer scale (i.e., New York State). Thus, a conservative approach focusing on local abundance of fish seems more appropriate. In fact, NRC used just such of an approach when considering cumulative impacts. In that case, NRC considered cumulative impacts within a 50-mile radius of FitzPatrick (Page 4-47 - Draft NUREG-1437, Supplement 31). (F-1)

Response: *The NRC recognizes the difference in perspective between the goals of the NYSDEC and the NRC's license renewal NEPA review. When evaluating impingement and entrainment at a plant, one could argue that even the loss of a few fish is unacceptable and mitigation is warranted. The NRC must evaluate impingement and entrainment in terms of impact to the environment, thus requiring the staff to develop methods to quantitatively evaluate the impact of impingement and entrainment on the affected fishery. To determine these quantitative impacts, NRC staff must use the best available population data, which for the JAFNPP review was population estimates of alewife and rainbow smelt for U.S. waters from 1982 through 2001. These U.S. waters estimates came from unpublished data compiled by Rochester Gas & Electric Corporation*.*

While the NRC agrees there is no indication that all fish species being impinged and entrained at JAFNPP function as a single lake-wide population, there is also no evidence that there are distinct populations specific to New York/U.S. waters or the three Lake Ontario sub-basins (Niagara, Mississauga, and Rochester). The fish species of interest and most affected by the JAFNPP cooling water system include alewife and rainbow smelt, both of which are pelagic species which likely do not remain in one area of the lake. Even if the U.S. waters population estimates were roughly divided to reflect local New York waters or Rochester sub-basin population estimates, the effects of impingement and entrainment on either of these two species at JAFNPP would still be categorized by the NRC as small. The comment provides no new and significant information; therefore, no changes were made to the SEIS in response to this comment.

**Rochester Gas & Electric Corporation. Population Estimates for Alewife and Rainbow Smelt in Lake Ontario, 1982-2001. Unpublished Data. 2003*

Comment: Page 4-14 - Draft NUREG-1437, Supplement 31. – References to factors contributing to fish populations in the Mississippi River (LaJeone and Monzingo 2000) lend little support for factors contributing to fish mortality in Lake Ontario. The ecological systems are completely different and have different fish species, water quality parameters, and flow dynamics. (F-2)

Response: *The comment refers to a scientific paper prepared by Larry J. LaJeone of Commonwealth Edison Company and Richard G. Monzingo of EA Engineering, Science and Technology, entitled “316(b) and Quad Cities Station, Commonwealth Edison” published in Environmental Science & Policy in 2000. The paper summarizes the findings and conclusions of 14 years of entrainment and impingement monitoring at Quad Cities Station, an open-cycle plant located on the Upper Mississippi River. The paper concluded that naturally occurring environmental conditions have a greater effect on fish populations than actual plant operations, and fluctuations in annual impingement and entrainment numbers primarily reflect waterbody conditions and fish populations’ responses to them. NRC staff does not assert there is similarity between the Upper Mississippi River and Lake Ontario, instead it references the paper to support the same conclusion with regard to natural fluctuations in Lake Ontario fish populations and subsequent impingement and entrainment rates at JAFNPP. As part of the environmental review for the JAFNPP license renewal application, the LaJeone and Monzingo reference will remain in Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages. The comment provides no new and significant information; therefore, no changes were made to the SEIS in response to this comment.*

Comment: Page 4-15.21 - Draft NUREG-1437, Supplement 31. – The following changes would improve New York’s position for requiring mitigation (if appropriate) while still reflecting NRC staff conclusions:

Original Wording: However, the NRC staff concluded that none of the mitigation measures considered would be beneficial enough to reduce the significance of adverse entrainment {impingement} impacts to the Lake Ontario fishery.

Proposed Wording: However, the NRC staff concluded that none of the mitigation measures considered would eliminate adverse entrainment {impingement} impacts and would not reduce the significance level below SMALL. (F-3)

Response: *The text in Sections 4.1.1 and 4.1.2 has been changed in response to this comment.*

Comment: While NRC staff has determined that the potential impacts of entrainment and impingement by JAFNPP are small as those numbers comprise a small percent of the lakewide population, it did not evaluate the cumulative impact to those resources on the entire lake. The cumulative impacts analysis does not evaluate the use of Lake Ontario water as cooling for other nuclear or coal electric generating facilities in Canada, such as the Pickering Nuclear

Generating Station or Darlington Nuclear Generating Station, and the cumulative impacts to aquatic species. (E-7)

Response: *Section 4.8.1 Cumulative Impacts on Aquatic Resources in the JAFNPP SEIS has been revised to evaluate cumulative impacts on a lake-wide basis, to be consistent with the entrainment and impingement reviews which reference U.S. waters population estimates for alewife and rainbow smelt.*

A.2.5 Comments Concerning Terrestrial Resources

Comment: The U.S. Fish and Wildlife Service (Service) has reviewed the NRC's May 2007 Biological Assessment (BA) for the proposed project. Pursuant to Section 7(a)(2) of the ESA, the NRC has determined that the proposed project will have no effect on the Federally-listed endangered Great Lakes breeding population of the piping plover (*Charadrius melodus*), and that the proposed project may affect, but is not likely to adversely affect the Federally-listed threatened bog turtle (*Clemmys muhlenbergii*) or bald eagle (*Haliaeetus leucocephalus*), the Federally-listed endangered Indiana bat (*Myotis sodalis*), or the eastern massasauga (*Sistrurus catenatus catenatus*), a candidate for listing.

The eastern massasauga is not known to occur in the vicinity of the proposed project. The bald eagle was officially delisted on August 8, 2007, removing all ESA requirements for this species. However, the bald eagle continues to receive protection under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended; 16 U.S.C. 668 *et seq.*) and the NRC should follow the Service's May 2007 Bald Eagle Management Guidelines* to avoid impacts to this species. The Service agrees that the project is unlikely to affect the piping plover or its designated critical habitat. However, the Service cannot concur with NRC's determinations for the bog turtle or Indiana bat at this time due to lack of sufficient information provided in the BA to fully understand the potential impacts. Pursuant to conversations between Ms. Robyn Niver, of this office, and Ms. Jessie Muir, of the NRC, we understand that additional information is forthcoming. (C-1)

Comment: In your May 21, 2007, letter and BA, the NRC determined the proposed project may affect but is not likely to adversely affect the bald eagle, bog turtle, Indiana bat, and Eastern massasauga. The Department of the Interior's August 28, 2007, letter to Ms. Jessie Muir, of the NRC, concluded that no further coordination or consultation pursuant to the ESA was required for the bald eagle, Eastern massasauga, or the piping plover. However, the NRC, Entergy, NMPNS, and NYPA should follow the Bald Eagle Management Guidelines found on our website to avoid any impacts to the bald eagle which continues to receive protection under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended; 16 U.S.C. 668 *et seq.*). (G-1)

Response: *We have removed the eastern massasauga rattlesnake from Table 2-4 and clarified the wording in Section 2.2.6.3 to better convey that the species is included in the discussion*

because it was identified in the NRC's previous review of Nine Mile Point Nuclear Station, which lies directly west of JAFNPP. We have removed the bald eagle from Table 2-4 and reworded Section 2.2.6.3 to reflect the recent delisting of the species, while adding information about its continued protection under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act. We have reviewed the Fish & Wildlife Service's (FWS) May 2007 Bald Eagle Management Guidelines to ensure the continued avoidance of impact to the species that might result from continued operation of JAFNPP. Text has been added to Sections 4.6 and 4.6.2 to reflect the FWS's determination that no further consultation is required for the bald eagle, Eastern massasauga rattlesnake, or piping plover.

Comment: As a reminder, until the proposed relicensing is complete, the NRC should check our website every 90 days from the date of this letter to ensure that listed species presence/absence information is current. Please remember that a Federal agency shall make no irreversible or irretrievable commitment of resources that would prevent formulating or implementing any reasonable or prudent alternatives for the action as described in 50 CFR Part 402.14. This prohibition remains until the requirements of Section 7(a)(2) are satisfied. (C-2)

Comment: Should project plans change, or if additional information on listed or proposed species or critical habitat become s available, these determinations may be reconsidered. The most recent compilation of Federally-listed and proposed endangered and threatened species in New York is available for your information. Until the proposed project is complete, we recommend that you check our website every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.*

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the ESA. This response does not preclude additional Service comments under any other legislation. (G-4)

Comment: As a reminder, all Federally-listed species, as well as the Eastern massasauga and bald eagle, are also listed by the State of New York. Any additional information regarding the proposed project and its potential to impact listed species should be coordinated with both this office and with the NYSDEC. The NYSDEC contact for the Endangered Species Program is Mr. Peter Nye, Endangered Species Unit, 625 Broadway, Albany, NY 12233 (telephone: [518] 402-8859). (G-5)

Response: *NRC staff has checked the FWS's and the NYSDEC's websites to ensure that we have included an accurate and up-to-date description of all listed species and updated our references accordingly. NRC staff will continue to check these sites until the Final SEIS is issued for JAFNPP and make the appropriate changes to the document, as needed. If project plans change, the NRC will notify the FWS and NYSDEC, as any changes may alter the FWS's previous determinations regarding potential adverse impacts to listed threatened or endangered species. Additionally, the NRC will be sure to coordinate any additional information regarding the JAFNPP license renewal review with both the FWS and NYSDEC.*

Comment: The DGEIS indicates that impingement of diving ducks has not been observed at FitzPatrick but has been an issue at Nine Mile Point Nuclear Station. The NRC should clarify the measures, such as monitoring, that are being taken to monitor waterfowl impingement at the intake. (C-6)

Response: *Although Nine Mile Point 1 had an incident in 2000 in which diving ducks were impinged in the screenwall building, this was an isolated event, and thought to be the result of both the presence of zebra mussels located on or near the intake structures and plant reverse flow conditions. Nine Mile Point now annually cleans all intake structures to remove zebra mussels and schedules reverse flow conditions during periods when diving duck feeding is limited. JAFNPP uses a molluscicide within its service and cooling water systems to control for zebra mussels, which is regulated by JAFNPP's SPDES permit. Because of the use of molluscicide, established populations of zebra mussels do not exist on JAFNPP's intake structures. JAFNPP has not observed the presence of diving ducks in the vicinity of its intake structures, which is likely due to the absence of their food source, zebra mussels; therefore, no monitoring is conducted at JAFNPP for diving ducks. Text has been added to Section 2.2.6 to clarify there is no concern of waterfowl impingement at JAFNPP's intake.*

Comment: Based on the additional information provided in an August 20, 2007, letter from Ms. Jessie Muir, of the NRC, we concur that the activities associated with operating and maintaining the Plant and associated transmission lines are not likely to adversely affect the Indiana bat as any adverse effects will be either insignificant (effects which are unable to be meaningfully measured, detected, or evaluated) or discountable (effects extremely unlikely to occur). (G-2)

Comment: We also concur that activities conducted at the Plant are not likely to adversely affect the bog turtle. However, we are unable to concur that transmission line maintenance activities are not likely to adversely affect the bog turtle given our understanding of the project location and activities. We understand that the following activities are likely to occur within rights-of-way: mowing, herbicide application, use of motorized vehicles, and tree-trimming or removal. These activities have the potential to impact bog turtles and/or their habitat. Therefore, we recommend that a qualified surveyor conduct Phase I surveys (potential habitat surveys) for any wetlands that may be disturbed during the operating and maintenance of the lines. Some surveys have already been completed in Oswego County that may reduce the ultimate scope of necessary survey work. We understand that NRC does not maintain GIS data for the proposed project and have requested this directly from the NYPA to determine whether any known or previously identified potential habitat for bog turtles occurs within the associated ROWs. You can find Phase I guidelines and template reporting forms on our website.* If known sites or potential habitat is present within the ROWs, further coordination/consultation with the Service is required. NYPA can also assume that all wetlands provide habitat for the bog turtle and employ standard avoidance and minimization measures (e.g., timing of activities). Please contact Ms. Niver for further information regarding options for addressing this species. In addition, we request a copy of the NYPA System Right-of-Way Management Plan for further description of maintenance activities. (G-3)

Response: *Text has been added to Section 4.6 and 4.6.2 to reflect the FWS's determination that operation of JAFNPP and maintenance of the associated transmission line ROWs is not likely to adversely affect the Indiana bat and the FWS's determination that operation of JAFNPP is not likely to adversely affect the bog turtle. Text has been added to update the status of the ongoing consultation with FWS in regards to FWS's concerns over the possible effects of transmission line maintenance activities on the bog turtle. The NRC will continue to consult with the FWS to assure protection of the bog turtle.*

A.2.6 Comments Concerning Radiological Impacts

Comment: In Section 2.2.7 of the draft SEIS, NRC states that for 2005, whole-body dose estimates were calculated based on actual liquid and aqueous effluent release data and conservative models to simulate the transport mechanisms. This text should be expanded to provide perspective on whether the maximum whole-body doses calculated for 2005 are typical of what would be expected considering the last 5-10 years of liquid and gaseous effluent data available for JAFNPP. (E-4)

Response: *The discussion of the radiological impacts in Section 2.2.7 has been expanded in response to this comment to state that the radiological data from previous years is consistent with the data reported for calendar year 2005.*

A.2.7 Comments Concerning Socioeconomic Factors

Comment: Page 2-40, Line 7-15: The percentages in the text do not match the percentages in Table 2-6. (D-40)

Response: *The numbers in the text are not supposed to match the numbers in the table. The text is showing an average annual rate while the table is showing the total growth over the 5-year period. Changes have been made to the text to clarify the difference in numbers in the text and the table.*

Comment: Page 2-47, Line 1: In Table 2-10, change the number of Entergy Nuclear Northeast employees from "560" to "716" to accurately reflect the employment and to be consistent with what is known on Page 2-39 (Line 16) of the draft SEIS. (D-42)

Response: *The numbers in Tables 2-5 and 2-10 are correct. The total number of permanent JAFNPP employees (716), in Table 2-5, represents all employees while the numbers shown in Table 2-10, represents data from only Oswego County. No changes were made to the text as a result of this comment.*

A.2.8 Comments Concerning Postulated Accidents

Comment: Section 5 of the draft SEIS should include a discussion on how the impacts of intentional destructive acts (e.g., terrorism) aimed at the plant, as well as the dry cask storage facilities, were addressed in the assessment of the impacts from postulated accidents. The requirement to consider such acts as part of the NEPA analysis is based on the Ninth District Court's decision in San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission (June 2006). (E-6)

Response: *Comment noted; however, Fitzpatrick is not in the 9th Circuit. The Commission noted that in San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016 (9th Cir. 2006), cert. denied sub nom. Pacific Gas & Elec. Co. v. San Luis Obispo Mothers for Peace, No. 06-466 (Jan. 16, 2007), the Ninth Circuit held that the NRC could not, under NEPA, categorically refuse to consider the consequences of a terrorist attack against a spent fuel storage facility. The Commission respectfully disagreed with the Ninth Circuit's view, but stated that it will follow that ruling in the Ninth Circuit—indicating its belief that a different outcome might be reached by other Courts of Appeals. Oyster Creek, CLI-07-8, 65 NRC at 128. Therefore, no changes were made to Section 5.1.2.*

A.2.9 Comments Concerning Uranium Fuel Cycle and Waste Management

Comment: Page 2-10, Line 32: Change "solid" to "nonhazardous" since hazardous and mixed wastes are considered solid waste under 40CFR261. (D-11)

Response: *The text has been changed in response to this comment.*

Comment: Page 2-10, Lines 35-36: Delete the sentence "Solid waste is waste that is neither radioactive nor hazardous as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR Part 260)" and replace with "A solid waste can be nonhazardous, hazardous or radioactive." (D-12)

Response: *The sentence in question has been deleted.*

Comment: Page 2-10, Line 36: Change "solid" to "nonhazardous" since hazardous and mixed wastes are considered solid waste also under 40CFR261. (D-13)

Comment: Page 2-11, Line 3: Insert "other nonhazardous waste such as" between "for" and "office". (D-14)

Comment: Page 2-11, Line 32: Delete "disposed of offsite by a contract service" and replace with "then shipped off-site by a contract service for recycling" since these type materials are recycled and not disposed. (D-15)

Comment: Page 2-12, Line 1: Delete "transformer oil" since oils in onsite transformers do not contain PCBs based on analytical testing. (D-17)

Comment: Page 2-12, Lines 2-3: Replace the sentence "In 2005, JAFNPP received a fine from EPA for improperly identifying a drum of used oil as nonhazardous instead of PCB-waste and not disposing of the drum at a TSCA disposal facility" with "Although the wastes was properly disposed, JAFNPP received a fine from the EPA in 2005 for shipping used oil containing PCBs on a Straight Bill of Lading instead of the required hazardous waste shipping manifest specified under TSCA" since the waste was ultimately disposed of properly and the issue was associated with not using the EPA hazardous waste manifest. (D-18)

Comment: Page 2-12, Line 12: Change "Discharge" to "Disposal" to reflect the correct title in the regulations. (D-19)

Comment: Page 2-12, Line 25: Delete "several accumulation areas in" since mixed waste is only accumulated in one area. (D-20)

Comment: Page 2-12, Line 25: Insert "currently" between "not" and "have". (D-21)

Response: *The text in Section 2.1.5 has been changed in response to the comments.*

Comment: Also, we recommend that the final SEIS address opportunities for pollution prevention and waste recycling. (E-2)

Comment: The draft SEIS was also silent on the issue and options for pollution prevention (P2). The final SEIS should discuss the internal and external processes and the waste streams that would be candidates for pollution prevention technologies. Some P2 opportunities can be as simple as specific landscaping and reduction of herbicides within the facility grounds, to reduction of sanitary or hazardous (non-radioactive) wastes. We encourage consultation with the U.S. Department of Energy's P2 office to obtain recommendations that would fit with the processes at JAFNPP. (E-8)

Response: *Implementation of pollution prevention measures at JAFNPP is not within the NRC's regulatory purview, but is implemented under state and local regulations and requirements. Therefore, the NRC does not identify candidate waste streams for pollution prevention technologies in the SEIS but instead highlights resources Entergy can use to identify waste minimization opportunities, such as the Environmental Protection Agency's Office of Pollution Prevention and Toxics. No change was made to Section 2.1.5 as a result of this comment.*

A.2.10 Comments Concerning Alternatives

Comment: Page 8-32: Under the "Impact" column for "Water Use and Quality—Groundwater" at the "JAFNPP Site", change "SMALL" to "NO IMPACT" to be consistent with the impact conclusion reached for the natural gas alternative at the JAFNPP site (Page 8-25). (D-84)

Response: *The text in Table 8-6 has been changed in response to the comment.*

Comment: Page 8-35, Line 6: Change "Overall, the impacts of the nuclear alternative at the JAFNPP site would be SMALL" to "Overall, there would be no impacts of the nuclear alternative at the JAFNPP site" to be consistent with the impact conclusion reached for the natural gas alternative at the JAFNPP site (Page 8-25). (D-85)

Response: *The text in Section 8.2.3.1 has been changed in response to the comment.*

Comment: Page 8-49: Under the "Socioeconomics Impact" column at an "Alternate Site", should the impacts be "SMALL to MODERATE" instead of "SMALL to LARGE" based on the summary in the "Comments" column since it states "SMALL to MODERATE"? (D-88)

Response: *The "Comments" column in Table 8-8 has been changed to "SMALL to LARGE". This is consistent with the impacts for the natural gas-fired plant, which is the primary driver of the impacts for the combined alternative section.*

Comment: Page 9-7: Under the "No-Action Alternative" column for "Water Use and Quality—Groundwater", change "SMALL" to "NO IMPACT" to be consistent with what is shown in Table 8-1 of the Draft SEIS (Page 8-3). (D-92)

Comment: Page 9-7: Under the "New Nuclear Generation" column at an "Alternate Site" for "Transportation", change "SMALL to MODERATE" to "SMALL to LARGE" to be consistent with what is shown in Table 8-6 of the Draft SEIS (Page 8-33). (D-93)

Response: *The text in Table 9-1 has been changed in response to the comments.*

Comment: Page 9-7: Under the "Combination of Alternatives" column at an "Alternate Site" for "Socioeconomics", should the impacts be "SMALL to MODERATE" instead of "SMALL to LARGE" since the summary in the "Comments" column of Table 8-8 (Page 8-49) states "SMALL to MODERATE"? (D-94)

Response: *The "Comments" column of Table 8-8 was changed to "SMALL to LARGE"; therefore, no change was made to Table 9-1.*

A.2.11 Editorial Comments

Comment: Page xxi, Line 20: Change "Lowest" to "lowest". (D-7)

- Comment:** Page 1-5, Line 33: Insert a space between "Renewal" and NUREG-1555". (D-8)
- Comment:** Page 2-6, Line 37: Change "services" to "service".. (D-9)
- Comment:** Page 2-9, Line 29: Add "releases" or "effluents" between "gaseous" and "in". (D-10)
- Comment:** Page 2-12, Line 1: Replace "is" with "are". (D-16)
- Comment:** Page 2-16, Line 9: Insert "(0.7 mi)" after "3700 ft" to be consistent with previous write-up on Page 2-14. (D-22)
- Comment:** Page 2-17, Line 17: Change "0.71" to "0.7" to be consistent with how this number is listed on Page 2-1 (Line 24) of the Draft SEIS. (D-23)
- Comment:** Page 2-20, Line 20: Change "(Entergy 2006a)" to "(Entergy 2006c)" to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-25)
- Comment:** Page 2-21, Line 5: Change "(Entergy 2006c)" to "(Entergy 2006f)" to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-26)
- Comment:** Page 2-22, Line 30: Insert a space between "Statement" and "(NRC 2006, Section 2.2.4)". (D-27)
- Comment:** Page 2-23, Line 26: Change "system" to "systems". (D-29)
- Comment:** Page 2-28, Line 29: There is no "(NYSDEC 2003)" listing in the Section 2.3 references of the Draft SEIS. (D-31)
- Comment:** Page 2-28, Line 33: Add "Endangered Species Act of 1972" to the references listed in Section 2.3 of the Draft SEIS to be consistent with other Federal Acts listed. (D-32)
- Comment:** Page 2-28, Line 33: Change "(Entergy 2006b)" to "(Entergy 2006c)" to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-33)
- Comment:** Page 2-31, Line 5: Change "(Entergy 2006)" to "(Entergy 2006c)" to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-34)
- Comment:** Page 2-31, Line 15: Delete spaces between "birch" and "/" and "/" and "sweet". (D-35)
- Comment:** Page 2-31, Line 30: Change "(Entergy 2006b)" to "(Entergy 2006c)" to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-36)
- Comment:** Page 2-35: Need to delete "Table 2-4 (cont'd)" and subheading under it. Should be a continuation of the bird listing. (D-37)

Appendix A

Comment: Page 2-37, Line 19: Change "on" to "or". (D-38)

Comment: Page 2-38, Line 14: Insert "are" between "and" and "used". (D-39)

Comment: Page 2-46, Lines 1-2: For the list of Sources, change "(USCB 2006)" and "(NRC 2006a)" to "(USCB 2006a)" and "(NRC 2006)" respectively, to accurately reflect the reference source in the Section 2.3 references of the Draft SEIS. (D-41)

Comment: Page 2-55, Lines 23-26: There is no "Boyd and Biberhofer" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-45)

Comment: Page 2-56, Line 12: Insert "(EA)" after "Technology" to be consistent with how the reference is shown in the Section 2.0 write-up (Page 2-28). (D-46)

Comment: Page 2-59, Lines 1-3: There is no "(ISLFBC 2002a)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-47)

Comment: Page 2-59, Lines 4-6: There is no "(ISLFBC 2002b)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-48)

Comment: Page 2-61, Lines 3-5: There is no "(NYSDEC 2001)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-49)

Comment: Page 2-62, Lines 26-27: There is no "(NMPC 1975)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-50)

Comment: Page 2-62, Lines 30-32: There is no "(NMPNS 2002a)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-51)

Comment: Page 2-64 through 65, Lines 33 and 1-2: There is no "(USACE 2002)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-52)

Comment: Page 2-65, Lines 14-17: There is no "U.S. Department of Agriculture 2002" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-53)

Comment: Page 2-65, Lines 18-22: There is no "(EPA et al 1998)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-54)

Comment: Page 2-66, Lines 24-28: There is no "(NRC 1985)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-55)

Comment: Page 2-66, Lines 29-30: There is no "(NRC 1996)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-56)

Comment: Page 2-66, Lines 31-34: There is no "(NRC 1999)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-57)

Comment: Page 2-67, Lines 10-11: There is no "(Zilkoski et al. 1992)" reference listing in the Section 2.0 write-up (Pages 2-1 through 2-54). (D-58)

Comment: Page 4-4, Lines 1-10: Delete these sentences since they are a repeat of the sentences on Page 4-2 (Lines 21-30). (D-59)

Comment: Page 4-24, Line 25: Replace "limes" with "lines". (D-62)

Comment: Page 4-34, Line 20: Change "(NRC 2006a)" to "(NRC 1996a)" to accurately reflect the reference source in the Section 2.3 references in the Draft SEIS. (D-63)

Comment: Page 4-35, Line 26: Replace "Minetta" with "Minetto". (D-64)

Comment: Page 4-46, Line 36: Add "Endangered Species Act of 1972" to the references listed in Section 4.10 of the Draft SEIS to be consistent with other listed federal Acts shown in previous sections. (D-65)

Comment: Page 4-50, Line 7: Change "(NRC 1996)" to "(NRC 1996a)" to accurately reflect the reference source in the Section 4.10 references of the Draft SEIS. (D-66)

Comment: Page 4-51, Line 4: The "(Entergy 2006b)" reference appears to be incorrect for this statement. However, the "(Entergy 2006a)" reference would appear to be more appropriate for this statement. (D-67)

Comment: Page 4-52, Line 4: Add "20" between "additional" and "year" and add an "s" to "year". (D-68)

Comment: Page 4-55, Lines 26-28: There is no "(Fox 2006)" reference listing in the Section 4.0 write-up (Pages 4-1 through 4-54). (D-69)

Comment: Page 4-57, Lines 11-13: There is no "(Oswego County 2006)" reference listing in the Section 4.0 write-up (Pages 4-1 through 4-54). (D-70)

Comment: Page 4-58, Lines 30-32: There is no "(EPA 2004)" reference listing in the Section 4.0 write-up (Pages 4-1 through 4-54). (D-71)

Comment: Page 4-59, Lines 15-17: There is no "(NRC 1996b)" reference listing in the Section 4.0 write-up (Pages 4-1 through 4-54). (D-72)

Comment: Page 4-60, Lines 15-17: There is no "(Wilke 2006)" reference listing in the Section 4.0 write-up (Pages 4-1 through 4-54). (D-73)

Appendix A

Comment: Page 5-1, Line 5: There is no "(NRC 1996)" listing in the Section 5.3 references of the Draft SEIS. (D-74)

Comment: Page 5-1, Line 5: There is no "(NRC 1999)" listing in the Section 5.3 references of the Draft SEIS. (D-75)

Comment: Page 5-2, Line 16: Add "10 CFR Part 50" and "10 CFR Part 100" to the references listed in Section 5.3 of the Draft SEIS to be consistent with other listed federal regulations shown in previous sections. (D-76)

Comment: Page 5-2, Line 37: Add "10 CFR Part 51" to the references listed in Section 5.3 of the Draft SEIS to be consistent with other listed federal regulations shown in previous sections. (D-77)

Comment: Page 5-3, Line 28: There is no "(NRC 1996)" listing in the Section 5.3 references of the Draft SEIS. Delete "(NRC 1996)" {Footnote on page 5-1 states that all GEIS references are to the GEIS and Addendum 1}. (D-78)

Comment: Pages 5-3 through 5-4, Lines 31-33 and 1: Recommend deleting this sentence since it is captured in the sentence shown on Page 5-4 (Lines 1-5). (D-79)

Comment: Page 5-6, Line 21: Change "(NPA 1991)" to "(NYPA 1991)" to accurately reflect the reference source in the Section 5.3 references of the Draft SEIS. (D-80)

Comment: Page 5-6, Line 22: Change "(NPA 1996)" to "(NYPA 1996)" to accurately reflect the reference source in the Section 5.3 references of the Draft SEIS. (D-81)

Comment: Page 5-7: In Table 5-3 line item for station blackout, change the exponent for "1.27 x 10⁻⁶" to superscript "1.27 x 10⁻⁶". (D-82)

Comment: Page 8-32, Line 1: Insert "However," prior to "the impact". (D-83)

Comment: Page 8-42, Line 9: There is no "(NRC 2006)" listing in the Section 8.4 references of the Draft SEIS. (D-86)

Comment: Page 8-43, Line 25: Insert "what is" between "than" and "needed". (D-87)

Comment: Page 8-53, Lines 8-10: There is no "(EPA 2000a)" reference listing in the Section 8.0 write up (Pages 8-1 through 8-51). (D-89)

Comment: Page 8-53, Lines 17-18: There is no "(NRC 1988)" reference listing in the Section 8.0 write up (Pages 8-1 through 8-51). (D-90)

Comment: Page 9-6, Line 24: Change "closed-cycle" to "once-through" since JAFNPP is equipped with a once-through cooling system. (D-91)

Comment: Page E-3: For Table E-2, change footnote (a) to read "Permit has been administratively continued under the New York State Administrative Procedures Act; therefore, JAFNPP continues to operate under the existing permit while NYSDEC completes the SPDES permit renewal." (D-95)

Comment: Page G-1, Line 14: Change "(NPA 1991)" to "(NYPA 1991)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-96)

Comment: Page G-1, Line 14: Change "(NPA 1996)" to "(NYPA 1996)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-97)

Comment: Page G-2, Line 7: Change "(NPA 1991)" to "(NYPA 1991)". (D-98)

Comment: Page G-2, Line 18: Change the reference for the breakdown of CDF by initiating event provided in Table G-1 to Entergy 2007, rather than Entergy 2006a. The information presented in Entergy 2006a contained values prior to combining and subsuming cutsets. In response to RAI 5.1, values after combining and subsuming cutsets were presented in Entergy 2007. (D-99)

Comment: Page G-3, Line 1: Change "(MAAP 4.04)" to "(MAAP 4.0.4)". (D-100)

Comment: Page G-3: In Table G-1 line item for station blackout, change the exponent for " 1.27×10^{-6} " to superscript " 1.27×10^{-6} ". (D-101)

Comment: Page G-4, Lines 11-12: Change "(NPA 1991)" to "(NYPA 1991)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-102)

Comment: Page G-4, Line 12: Change "(NPA 1996)" to "(NYPA 1996)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-103)

Comment: Page G-7, Line 7: Change "(NPA 1991)" to "(NYPA 1991)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-104)

Comment: Page G-7, Line 7: Change "(NPA 1996)" to "(NYPA 1996)". (D-105)

Comment: Page G-7, Line 8: Change "(NRC 19961b)" to "(NRC 1991b)" to correct a typographical error. (D-106)

Comment: Page G-7: In last item in Table G-3, delete "for instrument, master and slave trip units" leaving only "Updated initiating event frequencies and component failure data." (D-107)

Appendix A

Comment: Page G-8, Line 1: Change "(NPA 1996)" to "(NYPA 1996)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-108)

Comment: Page G-8, Line 2: Change "(NPA 1991)" to "(NYPA 1991)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-109)

Comment: Page G-10, Line 15: Change "(NPA 1996)" to "(NYPA 1996)" to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-110)

Comment: Page G-11, Lines 30-31: Change "(MAAP 4.04)" to "(MAAP 4.0.4)". (D-111)

Comment: Page G-12, Line 17: Draft SEIS states 4.66 percent enrichment, but reference document (Entergy 2007) states that 4.65 percent enrichment was assumed. (D-112)

Comment: Page G-15, Line 37: Change "(NRC 2006a)" to "(NRC 2006)" only to accurately reflect the reference source in the Section G.8 references of the Draft SEIS. (D-113)

Comment: Page G-18, Line 27: Change "Table G-4" to "Table G-5". (D-114)

Comment: Page G-27: Population dose reduction for SAMA 29 has a stray mark prior to the value. (D-115)

Comment: Page G-42, Lines 29-30: Add "10 CFR Part 54" to the references listed in Section G.8 of the Draft SEIS to be consistent with other listed federal regulations shown in previous sections. (D-116)

Comment: Page G-43, Lines 19-20: There is no "(NYPA 2004)" reference listing in the Appendix G write-up (Pages G-1 through G-42). (D-117)

Comment: Page G-43, Line 30: Change "1991" to "1991a" to be consistent with how the reference is listed in the Section G.2.2 write-up (Page G-10) of the Draft SEIS. (D-118)

Response: *The comments are noted, and wording in the identified sections of the SEIS has been changed in response to these comments.*