

Appendix A

Comments Received on the Environmental Review

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Comments Received on the Environmental Review

Part I - Comments Received During Scoping

On March 14, 2003, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the Federal Register (68 FR 12386–12387) to notify the public of the 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, to support the renewal application for the Dresden operating licenses 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 guidelines, and 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; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or submitting written suggestions and comments no later than May 12, 2003.

The scoping process included two public scoping meetings, which were held at Jennifer's Garden Banquet & Convention Center in Morris, Illinois, on April 10, 2003. To publicize the meetings, NRC staff issued a press release and posted flyers in nearby areas commonly visited by local residents. Approximately 90 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. After the NRC's prepared statements, the meetings were open for public comments. Twenty-one attendees provided either oral or written statements that were recorded and transcribed by a certified court reporter. The meeting transcripts are an attachment to the June 12, 2003, Scoping Meeting Summary. In addition to the comments provided during the public meetings, one e-mail message was received by the NRC in response to the Notice of Intent published in the *Federal Register*.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the plant-specific supplement to the GEIS and highlight public concerns and issues. The Notice of Intent to prepare an environmental impact statement (EIS) identified the following objectives of the scoping process:

- Define the proposed action
- Determine the scope of the supplement to the GEIS and identify significant issues to be analyzed in depth

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- Identify and eliminate peripheral issues
- Identify any environmental assessments and other environmental impact statements being prepared that are related to the supplement to the GEIS
- Identify other environmental review and consultation requirements
- Indicate the schedule for preparation of the supplement to the GEIS
- Identify any cooperating agencies
- Describe how the supplement to the GEIS will be prepared.

At the conclusion of the scoping period, the NRC staff and its contractors reviewed the transcripts and all written material to identify individual comments. All comments and suggestions received orally during the scoping meetings or in writing were considered. Each set of comments from a given commenter was given a unique identifier (Commenter ID number), so that each set of comments from a commenter could be traced back to the transcript, letter, or e-mail containing the comment. Several commenters submitted comments through multiple sources (e.g., they made comments in both the afternoon and evening scoping meetings). In these cases, there is a unique Commenter ID for each set of comments.

Table A-1 identifies the individuals who provided comments and the Commenter ID number 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 alphabetical order for the comments received by letter or e-mail.

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 several general groups. These groups include:

- 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 Dresden license renewal application.

- Questions that do not reveal new information.
- Specific comments that address issues that do not fall within or are specifically excluded from the purview of NRC environmental regulations. These comments typically address such issues as the need for power, emergency preparedness, current operational safety issues, and safety issues related to operation during the renewal period.

Each comment applicable to this environmental review is summarized in this section. This information, which was extracted from the Dresden Scoping Summary Report dated July 21, 2003, 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 Dresden are not included here. More detail regarding the disposition of general or inapplicable comments can be found in the summary report. An 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>. The Agencywide Document Access and Management System (ADAMS) accession number for the summary report is ML032030608.

The following pages summarize the comments and suggestions received as part of the scoping process that are applicable to this environmental review and discuss the disposition of the comments and suggestions. The parenthetical identifier after each comment refers to the comment set (Commenter ID) and the comment number for that commenter.

Comments in this section are grouped in the following categories:

A.1.1 Comments Regarding Socioeconomic Issues

A.1.2 Comments Regarding Alternatives to License Renewal

A.1.3 Comments Regarding Environmental Justice

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

Commenters ID	Commenter	Affiliation (If Stated)	Comment Source and ADAMS Accession Number^(a)
DS-A	Mitch Bailey		Afternoon Scoping Meeting
DS-B	Paul Nelson	Grundy County Board	Afternoon Scoping Meeting
DS-C	John Almer	Grundy County Board	Afternoon Scoping Meeting
DS-D	Danny Bost	Dresden Nuclear Power Station	Afternoon Scoping Meeting
DS-E	Fred Polaski	Exelon	Afternoon Scoping Meeting
DS-F	Tom Osmonson		Afternoon Scoping Meeting
DS-G	Ben Kosiek	International Brotherhood of Boilermakers	Afternoon Scoping Meeting
DS-H	David Balog	Local 1 Boilermakers	Afternoon Scoping Meeting
DS-I	Tom Connor	Local 1 Boilermakers	Afternoon Scoping Meeting
DS J	Cecil Pinder	Local 1 Boilermakers	Afternoon Scoping Meeting
DS-K	Robert Schwartz	Troy Fire Protection District	Afternoon Scoping Meeting
DS-L	Patrick O'Connor	Newberg-Perini/Stone and Webster	Afternoon Scoping Meeting
DS-M	Fred Bourdelais	Grundy County	Afternoon Scoping Meeting
DS-N	Jennifer Shaw		Afternoon Scoping Meeting
DS-O	Frank Schmidt	Grundy County Sheriff's Department	Afternoon Scoping Meeting
DS-P	John Riley		Afternoon Scoping Meeting
DS-Q	Bob Hovey	Dresden Nuclear Power Station	Evening Scoping Meeting
DS-R	Fred Polaski	Exelon	Evening Scoping Meeting
DS-S	Alfie Rodriguez		Evening Scoping Meeting
DS-T	Millie Dyer	Grundy County Board	Evening Scoping Meeting
DS-U	Lee Fatan		Evening Scoping Meeting
DS-V	George Kim		Evening Scoping Meeting
DS-W	Fred Bevington		Email - Letter (ML03140095)

(a) The afternoon transcripts can be found under accession number ML031500539 and the evening transcripts can be found under accession number ML031500547.

A.1 Comments Received During Scoping and Responses

A.1.1 Comments Regarding Socioeconomic Issues

As stated in 10 CFR Part 51, Table B-1, Category 2 socioeconomic issues are:

- Housing
- Public services: public utilities
- Public services, education (refurbishment)
- Offsite land use (refurbishment)
- Offsite land use (license-renewal term)
- Public services, transportation
- Historic and archaeological resources.

Comment: They employ good employees, they make good neighbors, they provide good jobs. The tax dollars provided from the plant, we have a very nice school system, fire district, library district, we're very fortunate (DS-A-1).

Comment: And license renewal is a very important issue for us not only to the people at Dresden Station but also to the people in the communities that surround us. We believe Dresden is a key element of the local economy (DS-D-1).

Comment: I hope that you realize the positive impact that Dresden has as a power generator and as a business in our local communities (DS-D-4).

Comment: Okay, I really think that we need to allow this extension; otherwise by not allowing it, we're going to place an undo hardship on the community (DS-G-2).

Comment: The schools are excellent, the fire and police are all excellent here. I don't live in this area anymore. I used to live in Morris. I live in New Lenox now, but I know in the local area that at least twice a year both the nuclear plants give us a lot of work being a member of Boiler makers Local 1 (DS-J-2).

Comment: There's a whole base of people from around the country that come here and do the outage here. They go to Quad Cities, they come back for Braidwood. So basically this extension would affect not only Illinois but several other states as well (DS-J-3).

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Comment: Our lives are supported in NRC granting an extension to the operating license for Dresden Nuclear Station (DS-K-1).

Comment: Now we did most of our work in the narrow band of time to support the refueling outages. But if you look at that in terms of its impact on the local economy, you can see that it's significant. Our employees earn more than twenty-five million dollars working at Dresden Station last year. Most of that money was returned to the local economies of Will and Grundy County (DS-L-2).

Comment: Last year we did an outage in October. We brought in people from twenty-two, pardon me twenty-six different states, most of the people were local but it gives you an idea about the impact that the work that we do here has across the nation (DS-L-4).

Comment: I think that they provide a tremendous economic impact for the county of Grundy (DS-M-4).

Comment: Safe, good fire district, good police district, good library and now I'm sending my kids to that school and I hope they can receive the same benefits that I did. Mostly I'm thankful to the tax dollars that were created at that point, ComEd and today Exelon (DS-P-1).

Comment: License renewal is very important. It's important, not only to the people at Dresden Station, but to the people in the communities that surround us. Dresden is the key element in the local community (DS-Q-1).

Comment: And I hope that you realize the positive impact that Dresden has had as a generator of electricity and as a good neighbor for our local communities (DS-Q-6).

Comment: During all that time, I've noticed it's been nothing but a great, a big asset to the community. Not only to the community but to the county and to the State. Dresden itself fulfills the need for employment (DS-S-2).

Comment: I was out of the county for a while, but I know how great of an impact it does have on the county (DS-T-2).

Response: *The comments are noted. Socioeconomic issues specific to the plant are Category 2 issues and are addressed in Chapter 4 of the SEIS.*

A.1.2 Comments Regarding Alternatives to License Renewal

Comment: And we also had to take a look in our review at what would happen if the license for Dresden is not renewed and that generation, at 1800 megawatts, was replaced with other types

of electricity generation, and concluded that any other means would have more of an impact on the environment than continuing to operate Dresden for another twenty years (DS-E-2).

Response: *The comment is noted. Impacts from reasonable alternatives for the Dresden Nuclear Power Station license renewal are evaluated in Section 8 of the SEIS.*

A.1.3 Comments Regarding Environmental Justice

Comment: As a resident born in Morris and one that has lived my whole life within a ten mile radius of the plant, I feel that I've been witness to what I believe is environmental injustice. I believe that part of the reason that this community has so many plants, nuclear plants, chemical plants, coal plants, is because of the economic class of the community (DS-N-2).

Response: *The comment is noted. Environmental justice is an issue specific to the plant and is addressed in Chapter 4 of the SEIS.*

Part II - Comments Received on the Draft SEIS

Pursuant to 10 Code of Federal Regulations (CFR) Part 51, the staff transmitted the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding Dresden Nuclear Power Station, Units 2 and 3, Draft Report for Comment* (NUREG-1437, Supplement 17, 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 staff:

- placed a copy of the draft SEIS into the U.S. Nuclear Regulatory Commission's (NRC's) Public Electronic Reading Room, its license renewal website, and at the Morris County Library and the Coal City Public Library;
- sent copies of the draft SEIS to the applicant, members of the public who requested copies, representatives of certain Indian tribes, and certain Federal, State, and local agencies;
- published a notice of availability of the draft SEIS in the *Federal Register* on December 12, 2003 (68 *Federal Register* 69400);
- issued public announcements, such as advertisements in local newspapers and postings in public places, of the availability of the draft SEIS;

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- announced and held two public meetings in Morris, Illinois, on January 14, 2004, to describe the results of the environmental review and answer related questions;
- 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
- established an email address to receive comments on the draft SEIS through the Internet.

During the comment period, the staff received a total of five comment letters in addition to the comments received during the public meetings.

The staff has reviewed the public meeting transcripts and the five comment letters that are part of the docket file for the application, all of which are available in the NRC's Public Document Room. Appendix A, Part II, Section A.1 contains a summary of the comments and the staff's responses. Related issues are grouped together. Appendix A, Part II Section A.2 contains excerpts of the January 14, 2004, public meeting transcripts and comment letters.

Each comment identified by the staff was assigned a specific alpha-numeric identifier (marker). That identifier is typed in the transcript at the end of the discussion of the comment or in the margin at the beginning of the discussion of the comment in a letter. A cross-reference of the alpha-numeric identifiers, the speaker or author of the comment, the page where the comment can be found, and the section(s) of this report in which the comment is addressed is provided in Table A-2. The speakers at the meetings are listed in speaking order along with the page of the transcript excerpts in this report on which the comment appears. Public testimony and written comments are identified by the letter "D" and a number representing the commenter, followed by a number that identifies each comment in approximate chronological order in which the comments were made.

The staff made a determination on each comment that it was one of the following:

- A comment that was actually a question and introduces no new information.
- A comment that was either related to support or opposition of license renewal in general (or specifically, Dresden Nuclear Power Station) or that makes a general statement about the licensing renewal process. It may make only a general statement regarding Category 1 and/or Category 2 issues. In addition, it provides no new information and does not pertain to 10 CFR Part 54.
- A comment about a Category 1 issue that provided new information that required evaluation during the review, or provided no new information.

- A comment about a Category 2 issue that provided information that required evaluation during the review, or provided no such information.
- A comment regarding Alternatives to the proposed action.
- A comment that raised an environmental issue that was not addressed in the GEIS or the draft SEIS.
- A comment outside the scope of license renewal (not related to 10 CFR Parts 51 or 54), which includes comments regarding the Need for Power.
- A comment on Safety issues pertaining to 10 CFR Part 54.
- A comment that was editorial in nature.

There was no significant new information provided on Category 1 issues or information that required further evaluation on Category 2 issues. Therefore, the conclusions in the GEIS and draft SEIS remained valid and bounding, and no further evaluation was performed.

Comments without a supporting technical basis or without any new information are discussed in this appendix, and not in other sections of this report. Relevant references that address the issues within the regulatory authority of the NRC are provided where appropriate. Many of these references can be obtained from the NRC Public Document Room.

Within each section of Part II of this appendix (A.2.1 through A.2.11), similar comments are grouped together for ease of reference, and a summary description of the comments is given, followed by the staff's response. Where the comment or question 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.

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Table A-2. Comments Received on the Draft SEIS

Comment ID	Commenter	Source	Comment Location	Section(s) Where Addressed
A-1	Kosiek	Afternoon Meeting Transcript (01/14/04)	A-32	A.2.9
A-2	Kosiek	Afternoon Meeting Transcript (01/14/04)	A-32	A.2.9
A-3	Kosiek	Afternoon Meeting Transcript (01/14/04)	A-46	A.2.10
A-4	Kosiek	Afternoon Meeting Transcript (01/14/04)	A-40	A.2.10
A-5	Kosiek	Afternoon Meeting Transcript (01/14/04)	A-16	A.2.1
B-1	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-19	A.2.4
B-2	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-20	A.2.4
B-3	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-20	A.2.4
B-4	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-31	A.2.8
B-5	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-16	A.2.2
B-6	C. Sauer	Afternoon Meeting Transcript (01/14/04)	A-20	A.2.4
C-1	S. Sauer	Afternoon Meeting Transcript (01/14/04)	A-20	A.2.4
D-1	J. Sauer	Afternoon Meeting Transcript (01/14/04)	A-21	A.2.4
E-1	Shirani	Afternoon Meeting Transcript (01/14/04)	A-43	A.2.10
E-2	Shirani	Afternoon Meeting Transcript (01/14/04)	A-17	A.2.2
F-1	Conn	Afternoon Meeting Transcript (01/14/04)	A-44	A.2.10
F-2	Conn	Afternoon Meeting Transcript (01/14/04)	A-44	A.2.10
F-3	Conn	Afternoon Meeting Transcript (01/14/04)	A-44	A.2.10
F-4	Conn	Afternoon Meeting Transcript (01/14/04)	A-45	A.2.10
F-5	Conn	Afternoon Meeting Transcript (01/14/04)	A-17	A.2.2
G-1	Duerr	Afternoon Meeting Transcript (01/14/04)	A-17	A.2.2
G-2	Duerr	Afternoon Meeting Transcript (01/14/04)	A-45	A.2.10
G-3	Duerr	Afternoon Meeting Transcript (01/14/04)	A-33	A.2.9

Comment ID	Commenter	Source	Comment Location	Section(s) Where Addressed
G-4	Duerr	Afternoon Meeting Transcript (01/14/04)	A-17	A.2.2
H-1	Schwartz	Evening Meeting Transcript (01/14/04)	A-16	A.2.1
H-2	Schwartz	Evening Meeting Transcript (01/14/04)	A-21	A.2.4
H-3	Schwartz	Evening Meeting Transcript (01/14/04)	A-16	A.2.1
H-4	Schwartz	Evening Meeting Transcript (01/14/04)	A-45	A.2.10
H-5	Schwartz	Evening Meeting Transcript (01/14/04)	A-16	A.2.1
I-1	Bourdelaïs	January 16, 2004 Letter	A-16	A.2.1
I-2	Bourdelaïs	January 16, 2004 Letter	A-21	A.2.4
I-3	Bourdelaïs	January 16, 2004 Letter	A-16	A.2.1
J-1	Simpson	February 20, 2004 Letter	A-49	1.3, A.2.11
J-2	Simpson	February 20, 2004 Letter	A-49	2.1.3, A.2.11
J-3	Simpson	February 20, 2004 Letter	A-49	2.1.3, A.2.11
J-4	Simpson	February 20, 2004 Letter	A-49	2.2.8, A.2.11
J-5	Simpson	February 20, 2004 Letter	A-50	2.2.9.1, A.2.11
J-6	Simpson	February 20, 2004 Letter	A-50	2.2.9.2, A.2.11
J-7	Simpson	February 20, 2004 Letter	A-50	2.2.10, A.2.11
J-8	Simpson	February 20, 2004 Letter	A-50	4.1.5, A.2.11
J-9	Simpson	February 20, 2004 Letter	A-50	4.6, A.2.11
J-10	Simpson	February 20, 2004 Letter	A-50	4.6, A.2.11
J-11	Simpson	February 20, 2004 Letter	A-25	A.2.5

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Comment ID	Commenter	Source	Comment Location	Section(s) Where Addressed
J-12	Simpson	February 20, 2004 Letter	A-26	A.2.5
J-13	Simpson	February 20, 2004 Letter	A-25	A.2.5
J-14	Simpson	February 20, 2004 Letter	A-50	4.8.4, A.2.11
J-15	Simpson	February 20, 2004 Letter	A-25	A.2.5
J-16	Simpson	February 20, 2004 Letter	A-27	A.2.5
J-17	Simpson	February 20, 2004 Letter	A-27	8.2.3.1, A.2.5
J-18	Simpson	February 20, 2004 Letter	A-24	A.2.5
J-19	Simpson	February 20, 2004 Letter	A-51	8.2.5.2, A.2.11
J-20	Simpson	February 20, 2004 Letter	A-51	8.2.5.9, A.2.11
J-21	Simpson	February 20, 2004 Letter	A-27	A.2.6
J-22	Simpson	February 20, 2004 Letter	A-28	G.2.2, A.2.6
J-23	Simpson	February 20, 2004 Letter	A-51	G.7, A.2.11
J-24	Simpson	February 20, 2004 Letter	A-28	A.2.6
J-25	Simpson	February 20, 2004 Letter	A-28	A.2.6
K-1	Lesar	February 20, 2004 Letter	A-26	A.2.5
K-2	Lesar	February 20, 2004 Letter	A-26	2.2.9.1, A.2.5
K-3	Lesar	February 20, 2004 Letter	A-26	2.2.9.1, A.2.5
K-4	Lesar	February 20, 2004 Letter	A-26	2.2.9.1, A.2.5
L-1	Fisk	February 24, 2004 Letter	A-47	A.2.10
L-2	Fisk	February 24, 2004 Letter	A-47	A.2.10

Comment ID	Commenter	Source	Comment Location	Section(s) Where Addressed
L-3	Fisk	February 24, 2004 Letter	A-33	A.2.9
L-4	Fisk	February 24, 2004 Letter	A-35	8.2.5.11, 8.2.6, A.2.9
L-5	Fisk	February 24, 2004 Letter	A-35	8.2.5.11, 8.2.6, A.2.9
L-6	Fisk	February 24, 2004 Letter	A-35	8.2.5.11, 8.2.6, A.2.9
L-7	Fisk	February 24, 2004 Letter	A-36	8.2.5.11, 8.2.6, A.2.9
L-8	Fisk	February 24, 2004 Letter	A-36	8.2.5.2, 8.2.6, A.2.9
L-9	Fisk	February 24, 2004 Letter	A-36	8.2.5.2, 8.2.6, A.2.9
L-10	Fisk	February 24, 2004 Letter	A-33	8.2.5.2, 8.2.5.3, 8.2.6, 8.2.5.11, A.2.9
L-11	Fisk	February 24, 2004 Letter	A-37	8.2.5.2, 8.2.6, A.2.9
L-12	Fisk	February 24, 2004 Letter	A-38	8.2.5.2, A.2.9
L-13	Fisk	February 24, 2004 Letter	A-39	8.2.5.3, 8.2.6, A.2.9
L-14	Fisk	February 24, 2004 Letter	A-33	8.2.5.2, 8.2.5.3, 8.2.5.11, 8.2.6, A.2.9
L-15	Fisk	February 24, 2004 Letter	A-34	8.2.5.2, 8.2.5.3, 8.2.5.11, 8.2.6, A.2.9

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Comment ID	Commenter	Source	Comment Location	Section(s) Where Addressed
L-16	Fisk	February 24, 2004 Letter	A-34	8.2.5.2, 8.2.5.3, 8.2.5.11, 8.2.6, A.2.9
L-17	Fisk	February 24, 2004 Letter	A-49	A.2.10
M-1	Westlake	February 24, 2004 Letter	A-23	A.2.4
M-2	Westlake	February 24, 2004 Letter	A-18	A.2.3
M-3	Westlake	February 24, 2004 Letter	A-19	A.2.3
M-4	Westlake	February 24, 2004 Letter	A-51	2.2.4, A.2.11
M-5	Westlake	February 24, 2004 Letter	A-51	A.2.11
M-6	Westlake	February 24, 2004 Letter	A-24	A.2.4
M-7	Westlake	February 24, 2004 Letter	A-52	A.2.11
M-8	Westlake	February 24, 2004 Letter	A-52	A.2.11
M-9	Westlake	February 24, 2004 Letter	A-29	A.2.6
M-10	Westlake	February 24, 2004 Letter	A-29	A.2.7
M-11	Westlake	February 24, 2004 Letter	A-30	A.2.7
M-12	Westlake	February 24, 2004 Letter	A-32	A.2.8
M-13	Westlake	February 24, 2004 Letter	A-52	8.1, A.2.11
M-14	Westlake	February 24, 2004 Letter	A-30	A.2.8
M-15	Westlake	February 24, 2004 Letter	A-30	A.2.8
M-16	Westlake	February 24, 2004 Letter	A-31	A.2.8
M-17	Westlake	February 24, 2004 Letter	A-51	A.2.11
M-18	Westlake	February 24, 2004 Letter	A-53	A.2.11

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 Dresden Nuclear Power Station, Units 2 and 3
- A.2.2 General Comments in Opposition to License Renewal at Dresden Nuclear Power Station, Units 2 and 3
- A.2.3 Comments Concerning Aquatic Ecology Issues
- A.2.4 Comments Concerning Human Health Issues
- A.2.5 Comments Concerning Socioeconomic Issues
- A.2.6 Comments Concerning Postulated Accidents
- A.2.7 Comments Concerning Uranium Fuel Cycle and Waste Management Issues
- A.2.8 Comments Concerning Decommissioning Issues
- A.2.9 Comments Concerning Alternatives
- A.2.10 Comments Concerning Issues Outside the Scope of the Environmental Review for License Renewal: Operational Safety, Security, & Emergency Preparedness; Safeguards and Security; and Need for Power
- A.2.11 Editorial Comments

A.2.1 General Comments in Support of License Renewal at Dresden Nuclear Power Station, Units 2 and 3

Comment: And I'm just here to speak in favor of the re-licensing of the Dresden Plant. (A-5)

Comment: I've lived there all my life, my family and friends have lived in the area of Dresden, and we feel that the environmental impacts of Dresden are insignificant. (H-1)

Comment: I also represent several hundred members who work at Dresden, Braidwood, and the fossil stations in our area, some of them who could not be here tonight, but would like me to convey their thoughts. They do not feel that there is any detrimental environmental effect from the operation of the Dresden Nuclear Station. (H-3)

Comment: So, especially based on what I heard here tonight, after the study that they did for the licensing of it, I feel very confident that there will be no adverse effects on the environment or the public safety of the continued operation. And I request that the NRC grant the license renewal for Dresden Nuclear Station. (H-5)

Comment: I would like to express support for renewal of the Dresden Power Plant Nuclear License. We were especially pleased to note that your staff had assessed the SocioEconomic impact that failing to renew the license would have on the County. (I-1)

Comment: Finally, I have chosen to live within a ten mile radius of both Dresden and Braidwood. I do not personally believe that either of these plants produce a harmful effect on the environment. (I-3)

Response: *The comments are noted. The comments are supportive of license renewal at Dresden Nuclear Power Station, Units 2 and 3, and are general in nature. The comments provide no additional information. There were no changes made in the supplement because of these comments.*

A.2.2 General Comments in Opposition to License Renewal at Dresden Nuclear Power Station, Units 2 and 3

Comment: It appears from these incidents that the Exelon Corporation does not have a high regard or respect for the rules and regulations of the various governing bodies over them and more importantly for the health and safety of the men, women and children who live in the area surrounding their nuclear reactors and high level waste storage pool. (B-5)

Comment: License renewal is the, the guarantee that NRC has to provide to the public, public safety that since we trust Commonwealth Edison for the last 40 years then we should give them another 20 years.

If you look at my records on the website and all my allegation it tells you that NRC should not rely on Exelon. Exelon has a history of falsification of records.

Exelon cannot be trusted. I have documentation that Exelon officers the ones that I have mentioned falsified records. They should be prosecuted according to the 10-CFR-50.7 and the 10-CFR-50.5. Rules and regulations are there. Who is going to enforce it. I expect NRC to enforce it. But unfortunately there is a flaw in the system. (E-2)

Comment: It is our hope that by escalating the tension around whistle blower protection and the importance of it particularly with regard to design control failures by General Electric whose Mark I machine is about to be stretched for another two decades that it's, it's not rational to consider moving to license extension while so much evidence abounds that NRC has not regulated or enforced effectively on safety issues. (F-5)

Comment: Well, a lot has been said about the management of this particular reactor so I'm not going to beat a dead horse there. But I think, you know, one good measure of a management team or an installation is its record. And I think we should look at the capacity and utilization of these units and factor that in to our decision of whether this is a good plant and whether it should be renewed.

I mean we're talking about a unit in 1997. 54 percent availability. This is, these are not good reactors. Not only is it a dishonest and perhaps inept management team but they have not achieved good results. (G-1)

Comment: So, you know, in view of jobs, you know, Ben [Kosiek], I think you need switch camps here. I think your own interest are best served in shutting down this particular plant. (G-4)

Response: *The comments are noted. The comments oppose license renewal at Dresden Nuclear Power Station, Units 2 and 3, and are general in nature. The comments provide no additional information. There were no changes made in the supplement because of these comments.*

A.2.3 Comments Concerning Aquatic Ecology Issues

Comment: We are concerned about the amount of organisms pinned against or drawn into Dresden's cooling water systems. Under a final rule signed by U.S. EPA on February 16, 2004, certain power plants with cooling water systems are required to (1) reduce the number of organisms pinned against water intake screens by 80 to 95 percent, and (2) reduce the number of organisms which are sucked into the cooling water system by 60 to 90 percent. Since the draft SEIS was written before the final rule was signed, the draft SEIS couldn't address how the Dresden plant will comply with this new regulation. However, the final SEIS should indicate the applicability of the final rule to the Dresden plant, and the modifications planned by the applicant to comply with the rule. (M-2)

Response: *On February 14, 2004, EPA finalized its rule addressing cooling water intake structures at existing power plants whose flow levels exceed a minimum threshold value of 50 million gpd. The rule is Phase II in EPA's development of 316(b) regulations that establish national requirements applicable to the location, design, construction, and capacity of cooling water intake structures at existing facilities that exceed the threshold value for water withdrawals. The national requirements, which are implemented through National Pollutant Discharge Elimination System (NPDES) permits, minimize the adverse environmental impacts associated with the continued use of the intake systems. Licensees are required to demonstrate compliance with the Phase II performance standards at the time of renewal of their NPDES permit. Licensees may be required as part of the NPDES renewal to alter the intake structure, redesign the cooling system, modify station operation, or take other mitigative measures as a result of this regulation. The new performance standards are designed to reduce significantly entrainment losses due to plant operation. Any site-specific mitigation would result in less impact due to continued plant operation.*

The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: We are concerned about effluents from the Dresden plant which exceeded National Pollutant Discharge Elimination System (NPDES) permit limits on temperature. According to the draft SEIS, Exelon received one provisional variance from permit limits in 2001 and two provisional variances in 1999. The draft SEIS states that the two 1999 provisional variances were the result of an extended heat wave and drought. Exelon conducted biological studies to determine the impact of the provisional variances on fish and other aquatic life. The draft SEIS states that there were no adverse impacts on these organisms; the only effect was a change in

fish distribution during the higher temperature periods. Based on this information, the draft SEIS characterizes the thermal impacts caused by the provisional variances as SMALL. However, we think that the draft SEIS does not adequately discuss the potential for future exceedences of NPDES temperature limits, and the impacts of these exceedences. Also, the draft SEIS does not evaluate the possible cumulative impact of future temperature exceedences combined with future droughts and/or heat waves. The final SEIS should discuss these issues. (M-3)

Response: *The previous Provisional Variances were granted by the Illinois Pollution Control Board, based on the recommendation of the Illinois Environmental Protection Agency. The variances were granted under heat wave conditions, at which time the temperature of the receiving water was approximately the same as for the Dresden effluent water. Under these heat wave conditions, biological effects of heat stress would have occurred even if there was no effluent from the Dresden plant. Likewise, any cumulative impacts would have occurred with or without discharges of heated water from Dresden.*

With regard to the future, it is reasonable to assume that similar heat wave conditions could recur. Immobile taxa (e.g. invertebrates) would be more affected than mobile taxa if the effluent caused a zone of elevated temperature in the receiving water. However, the invertebrate fauna in the Dresden Pool are tolerant/facultative taxa, and are unlikely to be impacted much by the temperature increases. Because there are refuge areas for mobile species and potential for recolonization for immobile taxa (through drift from upstream areas and reproduction of adults), the impacts of thermal releases during future heat wave conditions would be SMALL. The recent addition of new cooling towers will increase the Dresden plant's capacity to transfer heat from the heated water effluent to the atmosphere. Section 4.8.1 of the SEIS discusses cumulative impacts resulting from operation of the plant cooling system.

A.2.4 Comments Concerning Human Health Issues

Comment: As a private citizen of Grundy County and a concerned parent of a child with brain cancer, I am alarmed by the rising cancer statistics for this county and feel that before the United States Nuclear Regulatory Commission allows the Exelon Corporation to continue to operate its Dresden plant for another 20 years it should evaluate whether radioactive emissions or radioactive by products from the plant are contributing to these trends. (B-1)

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Comment: Obviously we have a problem here in Grundy County. These statistics are frightening and cannot be ignored. Yet when I ask various State and Federal agencies about these situations I am met with resistance and an unwillingness to further investigate the reason for this rising trend.

The previous studies done in the past and elsewhere cannot have the answers for this increase and are not justification for not investigating this current situation. (B-2)

Comment: I understand the Exelon Corporation has a significant economic impact on Grundy County but does this mean that financial gains are priority over the health and safety of the children and adults who live in this community. (B-3)

Comment: The NRC states its role is that of protecting public health and safety and of the environment. There is something wrong here in Grundy County. Who and what are making our children sick. (B-6)

Comment: Please protect the children from this awful disease and please don't put bad things in our water and air. (C-1)

Comment: First and foremost Trisha's [Milligan's] comments relating to infant mortality are very valid, very vague and very deceptive.

In that data published in the IDPH it clearly indicated that during this time frame there was actually a reported decrease in alcohol use. A decrease use in cigarettes. In addition there was an increase in first trimester prenatal care. In other words people were seeking out care initially meaning they had ready access to it.

I am hard pressed to think of any major economic or environmental changes outside of those areas that would have dramatically changed from the early 90s to the late 90s.

In regards to the study that she's referring from the IDPH it is a very cleverly drafted study with serious and significant flaws to it.

When you are going to design a study the results are only as good as the design of it. In that study what they did was choose counties with nuclear reactors in them and compared the overall population in that county to populations of counties that did not have a nuclear reactor. Included were several of the nuclear reactors in this area. Including LaSalle, Dresden and Braidwood.

If you look at the population of Grundy County it is approximately 40,000 people. If you look at the county of Will County it is over 500,000. Therefore Grundy County becomes almost insignificant in this study.

In addition most of the research relating to effects of nuclear plants have a 10 at most 15 mile radius. If you draw a 10 mile radius around the Braidwood facility which is listed in Will County you do not get to any of the population of the larger towns. In essence 90 percent of the people in Will County which is considered in the nuclear side live in non nuclear conditions.

Braidwood is closer to Grundy County than to any of the major cities within Will County. So if you take 500,000 people and put them on the nuclear side and don't give them any effects you have completely negated the data.

Now I'm unaware of the other counties. I didn't research each and every one. But traditionally nuclear plants have been located in rural areas. Therefore the large majority of each county will not be affected by the nuclear plant.

That does not excuse any effects that are caused in those communities because smaller towns despite not having political power are important. However, it completely makes the study irrelevant when you are comparing people who have not had exposure on either side and then stating that they're not statistically different. (D-1)

Comment: None of my family or any family or friends that I know of have any detrimental sicknesses or maladies from anything that is resulted from Dresden. (H-2)

Comment: The Health Issue, while adequately addressed by your staff, is probably a result in part of the fact that Morris Community Health is contracted to provide health care to the Dwight Correctional Facility. This facility is located in an adjacent county and provides incarceration to female inmates from several surrounding counties, including Cook County and the City of Chicago. While these inmates do not reside in Grundy County, nor are they incarcerated in the County, the statistics associated with their health care are attributed to Grundy County. (I-2)

Response: *The evaluation of health effects from exposure to radiation, both natural and man-made, is an ongoing activity involving public, private, and international institutions. International and national organizations such as the International Commission on Radiological Protection and National Council on Radiation Protection and Measurements provide consensus standards developed from recent and ongoing research.*

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NRC's regulatory limits for effluent releases and subsequent dose to the public are based on the radiation protection recommendations of these organizations. NRC provides oversight of all licensed commercial nuclear reactors to ensure that regulatory limits for radiological effluent releases and the resulting dose to the public from these releases are within the established limits. The regulations related to radiological effluents and dose to the public can be found in 40 CFR 190, 10 CFR Part 20, and 10 CFR Part 50, Appendix I.

Gaseous and liquid effluent releases are monitored at the Dresden Nuclear Power Station Units 2 and 3 to demonstrate that they are within regulatory limits. The licensee also has a Radiological Environmental Monitoring Program (REMP) that provides the procedures for monitoring releases to the environment. The results of this monitoring are provided to NRC in annual reports titled Annual Radioactive Effluent Release Report and Environmental Operating Report. The effluent release program and the REMP were both reviewed for the preparation of the input to this SEIS. The releases of radionuclides to the environment, from all pathways are monitored as prescribed by the licensee's Offsite Dose Calculation Manual and were found to be well below regulatory limits.

Due to concern with the issues regarding the increased cancer rates raised by the Radiation and Public Health Project (RPHP), the Illinois Department of Public Health evaluated the cancer rates using the same data used by RPHP. Staff from the Department of Public Health performed a review of the counties in Illinois with nuclear power plants in comparison with the counties without nuclear power plants and reported the results in the Illinois Department of Public Health's Registry Newsletter dated Fall 2000 and entitled, "Pediatric Cancer Incidence and Proximity to Nuclear Facilities in Illinois."

A recent report suggested that, after nuclear power reactor closings, the geographic areas surrounding the reactor sites showed improvements in infant and child health within short periods of time. The explanation for these "improvements" is that the fetus, infant and young child are most susceptible to effects of radiation and other toxic exposures. One of the measures used as an index to arrive at this conclusion was pediatric cancer incidence, especially among children ages 0 to 4 years.

Illinois has a number of nuclear power plants housed in different counties throughout the state. These plants have been in existence for varying lengths of time and are located in counties with differing population characteristics. Most plants are still in operation thus making an assessment of "closing effect" impossible. Nevertheless, if an improved health outcome is related to cessation of operation, then an equally plausible hypothesis would be that infants and children living near a nuclear power plant have worse health outcomes than those living elsewhere. This hypothesis was tested in the present study by evaluating the effects of possible nuclear exposure on pediatric cancer incidence in Illinois.

This evaluation of pediatric cancer incidence and proximity to nuclear facilities in Illinois failed to find significant and meaningful cancer incidence rate differences for Illinois children residing in counties with nuclear facilities as compared with those in comparable counties without such facilities. In addition, no “dose response” effect could be detected when comparing counties with nuclear facilities in operation for long and short periods of time. These results were observed in analyses of pediatric cancer incidence for ages 0 to 19 years, as well as those for younger children ages 0 to 4 years. These findings do not support an association between pediatric cancer risks and living in close proximity to nuclear power facilities and, therefore, are not in agreement with those recently published suggesting that pediatric cancer incidence decreases when exposure risk for nuclear emissions is reduced by plant closures.

However, they are in agreement with a recently reported study of 68,000 female defense workers that found no general mortality increases among women working in nuclear weapons plants during the Cold War.

The RPHP has raised these concerns in Pennsylvania, as well as Florida, during license renewal meetings. The Departments of Health for these states have reviewed the data and, like Illinois, concluded that pediatric cancer rates are not increasing in counties with nuclear power plants or those counties located downwind from nuclear power plants.

Other national and international organizations have studied the question of radiation and cancer, and generally come up with similar conclusions including the International Commission on Radiological Protection (1991), the United Nations Scientific Committee on the Effects of Atomic Radiation (2001), and the National Council on Radiation Protection and Measurements (2001). The comments provide no additional information. There were no changes made in the supplement because of these comments.

Comment: We are concerned about the level of information provided in the draft supplemental environmental impact statement (SEIS) on radiological impacts. . . . The SEIS cites two annual reports which summarizes information from the REMP, but it does not contain this summary information itself. Summary information about radiation from the Dresden plant and associated exposure pathways in the environment is relevant in determining radiological impacts from the continued operation of Dresden Units 2 and 3. We are unable to make such a determination from the SEIS as it is written. Therefore, we suggest that the final SEIS include current annual summary information about radiological impacts from the REMP. (M-1)

Response: *In developing this SEIS, the staff followed Council on Environmental Quality (CEQ) Regulations for Implementing NEPA, found in Part 1502, Sec. 1502.7, “Page limits,” which states “The text of final environmental impact statements (e.g., paragraphs (d) through (g) of Sec. 1502.10) shall normally be less than 150 pages and for proposals of unusual scope or*

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complexity shall normally be less than 300 pages.” Including past annual reports on the licensee’s monitoring programs would significantly increase the size of this SEIS with little additional benefit for a reviewer, particularly because these reports are readily available through the NRC Public Electronic Reading Room (ADAMS) at <<http://www.nrc.gov/reading-rm.html>>. The accession number for the 2002 REMP report is ML031420059. REMP reports for other years can be readily found by searching the ADAMS database. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: Section 3.0, *Environmental Impacts of Refurbishment*, page 3-2, Table 3-1. Under the section on Human Health, specific information supporting any assertions that this area “needs no further evaluation” needs to be presented or more completely cited and described. (M-6)

Response: *As noted on Page 3-3, Exelon stated that the planned replacement of components and additional inspection activities during the license renewal period are within the bounds of normal plant component replacement and inspections. In addition, Exelon’s evaluation of structures and components as required by 10 CFR 54.21 did not identify any major plant refurbishment activities or modifications necessary to support operations of Dresden Units 2 and 3 beyond the end of the existing operating licenses. Because Exelon does not plan any refurbishment activities, refurbishment is not considered in this SEIS. Accordingly, there is no assertion in Section 3.0 that any impact area “needs no further evaluation” as stated in the comment. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.2.5 Comments Concerning Socioeconomic Issues

Aesthetics

Comment: Page 8-45, line 9; page 8-49, line 41; page 8-50, line 11; and page 9-8. These discussions of aesthetic impacts of the alternative nuclear plant are not consistent with the analysis presented in the GEIS for aesthetic impacts of license renewal for the existing plant. During the construction of the alternate plant on the Dresden site, impacts would be introduced that may bring the overall site to a MODERATE level of impact, however, once the alternate plant is operating and the existing site is fully decommissioned, the overall impacts would not be much different that what currently exists. As stated in the GEIS in the conclusion of the analysis of this issue, the “staff believes that the impacts on aesthetic resources would be small in the future”. For this reason, Exelon believes the staff should review their conclusions with respect to their analysis of this issue. (J-18)

Response: *The staff does not rely on generic conclusions in the GEIS with regard to environmental impacts of alternatives. For the Dresden site, the staff concluded that a new nuclear facility located on the banks of the Mississippi River would have a MODERATE aesthetic impact. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Cultural Resources

Comment: Page 4-49, lines 13-14. These lines talk to ‘significant cultural resources to be present at the site.’ The wording goes on to mention Dresden Unit 1 in the context of this classification. It is not entirely clear how Dresden Unit 1 would be considered a significant cultural resource. The decommissioning plan for Unit 1 has already been submitted to the NRC. Part of this decommissioning plan includes the future dismantlement of the facility. The facility, as currently classified, holds a SAFESTOR license. (J-11)

Comment: Page 4-49, lines 18-20. [“]Any plans to decommission Dresden Unit 1 prior to the termination of the OL for Dresden Units 2 and 3, must be preceded by a historic evaluation of Unit 1 and must undergo Section 106 consultation with the IHPA.[”] This line should be deleted. The decommissioning plan for Unit 1 has already been submitted to the NRC. It currently holds a SAFESTOR license. With respect to Unit 1, Exelon intends to continue with this decommissioning plan at the end of the operating licenses for Units 2 and 3. (J-13)

Comment: Page 8-6, lines 20-26. The lines here pertain to Unit 1 and evaluations that may be required prior to decommissioning. The decommissioning plan for Unit 1 has already been submitted to the NRC. It currently holds a SAFESTOR license. With respect to Unit 1, Exelon intends to continue with this decommissioning plan at the end of the operating licenses for Units 2 and 3. (J-15)

Response: *Dresden Unit 1 is specified under cumulative impacts as a potential historic resource protected under the National Historic Preservation Act. As such, Unit 1 would require a historic evaluation and Section 106 consultation prior to decommissioning whenever that action may occur. The comments provide no additional information. There were no changes made in the supplement because of these comments.*

Comment: Page 4-49, lines 14-18. The lines listed here pertain to activities that may affect cultural resources and describe that an evaluation of cultural resources be performed in consultation with the Illinois State Historic Preservation Officer prior to performing any ground-disturbing activity. Exelon has committed to contact the State Historic Preservation Officer for

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guidance on how to proceed prior to disturbing land that has not been previously evaluated for archeological significance by the NRC. This was committed to by Exelon in e-mail under ADAMS Accession #ML033090462. (J-12)

Response: *The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Page 2-42, line 31: The flood plain of the Illinois River and its contributing streams, the Des Plaines and the Kankakee, constitute a portion of the landscape that is capable of cultivation without the plow and that is occupied by riparian vegetation and fish and wetland wildlife populations. All predictive models of site location list the flood plain as a prime zone for archeological site location. While the land and the location within the flood plain have a high potential to yield important archaeological resources, without survey data, it is difficult to predict the site significance and, thus, potential impacts. Likewise, past/current land disturbance may have jeopardized artifacts to an unknown degree; thus, activity in the flood plain may constitute an ongoing impact that has yet to be evaluated. (K-1)

Response: *Comment is noted and is consistent with, although more detailed than, the existing text. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Page 2-43 line 16: Please add "Kaskaskia Illinois" Tribe. (K-2)

Comment: Page 2-44 line 10: Please change to "Briscoe Mounds and associated habitation site." (K-3)

Comment: Page 2-44 line 12: Please correct. One of the mounds was erected around 1350, the other has never been excavated. (K-4)

Response: *The text in Section 2.2.9.1 has been modified.*

Land Use

Comment: Page 8-43, line 6. Change "Would use unused portion of Dresden site." to "Would use unused portion of the Dresden site, possibly supplemented with neighboring land." While the Dresden site consists of approximately 2,500 acres, the majority of that site area is comprised of the Dresden Cooling Lake. The DEIS, on pg 2-27, lines 3-6, characterize the undeveloped portions of the Dresden site as supporting old-field, wetlands, and woodland vegetation. As stated in the GEIS and this DEIS, 500 to 1000 acres of land would be needed for the

construction of the additional facility. Therefore, it is anticipated that the Dresden site would need to be supplemented with additional land for the purpose of constructing an additional nuclear facility prior to the end of the current OL for Units 2 and 3. (J-16)

Comment: Page 8-46, line 15. Change “. . . nuclear facility.” to “. . . nuclear facility, possibly supplemented with neighboring land.” While the Dresden site consists of approximately 2,500 acres, the majority of that site area is comprised of the Dresden Cooling Lake. The DEIS, on pg 2-27, lines 3-6, characterize the undeveloped portions of the Dresden site as supporting old-field, wetlands, and woodland vegetation. As stated in the GEIS and this DEIS, 500 to 1000 acres of land would be needed for the construction of the additional facility. Therefore, it is anticipated that the Dresden site would need to be supplemented with additional land for the purpose of constructing an additional nuclear facility prior to the end of the current OL for Units 2 and 3. (J-17)

Response: *The comments are noted, and the text in Section 8.2.3.1 has been changed to reflect this information.*

A.2.6 Comments Concerning Postulated Accidents

Comment: Both Exelon and NRC agree that numerous conservatisms exist in the current fire PRA. These conservatisms overstate the actual risk from fire at Dresden (Dresden DEIS pg G-24). The NRC staff reviewers, however, disagreed with a reduction of CDF. by a factor of 6 used by Exelon to account for uncertainties in external events analysis for fire based on information provided by Exelon. The NRC suggested a value closer to two to three. It should be pointed out that the existing fire PRA. study was performed not to provide detailed estimates of fire risk to be used in routine plant analysis, but was limited to the IPEEE purpose of discovery of major fire vulnerabilities. Furthermore, the NRC has provided no basis for the determination of their suggested value of two to three. If additional consideration by Exelon were performed, it would include a more realistic review of fire impacts. This more realistic review is expected to verify that the reduction of CDF. by a factor of 6 used by Exelon is accurate. (J-21)

Response: *The contribution to risk from fire events is discussed in detail in Section G.6.2. As noted therein, the staff believes that the information provided by Exelon was not sufficient to support a factor of six reduction, and for reasons presented in the discussion, the staff used a factor of three reduction in its assessment. The staff acknowledged that a more realistic assessment could result in a lower fire CDF. However, factor of three reduction was considered appropriate given the large risk contribution from external events relative to internal*

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events, and the lack of information from the licensee on which to base a more precise risk reduction estimate for external events. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: On pg G-8, lines 22 - 27, it is stated that the USI A-46 outliers were planned to be resolved or will be completed no later than the end of the Unit 2 refueling outage scheduled for October 2003, except for a Unit 3 modification to some motor control centers, which is currently scheduled for the fall of 2004. Wording should be changed to reflect that the USI A-46 outliers were resolved or completed, except for a Unit 3 modification to some motor control centers, which is currently scheduled for the fall of 2004. Wording elsewhere through the Dresden DEIS should also be modified to reflect this. (J-22)

Response: *The text in Section G.2.2 has been revised as suggested by the comment.*

Comment: For SAMA #3b, regarding an alternate drywall spray water source by using a LPCI cross-tie from the other unit, the NRC has already concluded that there is considerable uncertainty in the likelihood of sump clogging and that the SAMA has a negative net value (Dresden DEIS, page G-26). (J-24)

Response: *As noted in Section G.6.2, this severe accident mitigation alternative (SAMA) has a negative net value; however, it could be cost-beneficial given a more detailed assessment of its benefit in external events, or when uncertainties are taken into account. Given its potential risk reduction and relatively modest implementation cost, the staff concluded that further evaluation of this SAMA by Exelon is warranted. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: For SAMA #11, the change suggested in the Dresden DEIS would require deviations from NRC-approved emergency operating guidelines. This would be impacted by the change suggested by the Staff as well as causing a significant deviation from the approved Boiling Water Reactor Owners Group (BWROG) strategy. (J-25)

Response: *Although the procedure enhancements associated with this SAMA may constitute deviations from the generic Emergency Procedure and Severe Accident Guidelines, such deviations may be preferable to strict adherence to the generic guidelines and could be justified on the basis of the overall reduction in risk. The fact that a procedure enhancement may represent a deviation from the generic guidance is not a sufficient basis for dismissing the enhancement from further consideration. The staff's conclusion is unchanged and further evaluation of this SAMA by Exelon is warranted. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Section 5.2.2, *Estimate of Risk*: Page 5-5 states “The baseline core damage frequency (CDF.) for Dresden is approximately 1.9×10^{-4} per year, based on internally-initiated events. Exelon did not include the contribution to CDF. from external events in these estimates even though the risk from external events is significantly higher for Dresden than risk from internal events.”

We recommend evaluating and presenting risk estimates from both internal and external events. In addition, given the draft SEIS statements referenced above, effects of external events should be included in the risk decision considerations, as necessary, to get an accurate portrayal of the risk of the licensing renewal. If the final SEIS does not incorporate external events into risk calculations or risk decisions, it should provide a rationale for using internally-initiated events only. (M-9)

Response: *Although Exelon did not include the contribution to Core Damage Frequency from external events, the NRC staff evaluated these risks and factored the contribution from external events into the decision regarding SAMAs. A detailed discussion of the risks from fire, seismic, and other external events is provided in Section G.2.2 of the SEIS. As described in Sections 5.2.5 and G.6.2, the NRC staff increased the risk reduction estimates for candidate SAMAs by a factor of five to specifically account for their additional benefits in external events. The contribution to risk from external events dominates the total risk reduction estimates for each SAMA, and was an important factor in the cost-benefit evaluation for each SAMA. The impact of external events on the risk reduction estimates, and the dispositioning of each candidate SAMA is described in Sections G.6.2 and G.7 of the SEIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.2.7 Comments Concerning Uranium Fuel Cycle and Waste Management Issues

Comment: Section 6.1, *The Uranium Fuel Cycle*, page 6-2. Under the bullet point for Off-site radiological impacts (individual effects from other than disposal of spent fuel and high level waste), no consideration appears to be given to the potential long-term storage of the spent fuel and high-level waste materials on-site until such time as a permanent facility is finally licensed and begins to accept these materials for disposal. A reference to other sections or documents where this evaluation may have been included should be provided here; otherwise, the issue needs to be considered and evaluated. (M-10)

Comment: Section 6.1, *The Uranium Fuel Cycle*, page 6-8. Under the bullet point for On-site Spent Fuel. A more thorough evaluation for the volume of spent fuel expected to be generated

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during the additional licensed time needs to be provided along with more specific information as to site-specific circumstances that may impair or improve the risk values for potential exposures to this spent fuel. (M-11)

Response: *Onsite storage and offsite disposal of spent nuclear fuel are Category 1 issues. The safety and environmental effects of long-term storage of spent fuel on site has been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23, the NRC generically determined that “if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time.” The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Section 8.2.1.1, *Closed-Cycle Cooling System*, page 8-21, under the bullet Uranium and thorium. A better comparison or quantification of the relative concentrations of the uranium and thorium to the background levels needs to be provided. As is, this presentation can lead to misunderstanding and confusion. (M-14)

Response: *As stated in Section 8.2.1.1, uranium and thorium naturally occurs in coal. Uranium concentrations are generally in the range of 1 to 10 parts per million. Thorium concentrations are generally about 2.5 times greater than uranium concentrations. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Section 8.2.1.1, *Closed-Cycle Cooling System*, page 8-22, under bullet point Human Health. Any dose estimate that would have the potential to fall in the range of 10^{-6} to 10^{-4} or greater needs to be specifically evaluated for potential regulatory requirements or risk impacts to the public health. This should be estimated conservatively using the data that is currently available or that can be logically extrapolated from currently available information. (M-15)

Response: *The impacts to air quality and human health resulting from the operation of a coal-fired plant are discussed in general in the GEIS (NUREG-1437). The GEIS acknowledges public health risks from emphysema and cancer would likely result from coal-fired power plant emissions of regulated pollutants and radionuclides. While it is possible to estimate the dose*

from a coal-fired power plant, many assumptions would be required, including location and makeup of the affected population. Because the location of an alternative to the Dresden plant and the surrounding population is purely speculative, an estimated dose would have little real meaning. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: Section 8.2.3.1, *Closed-Cycle Cooling System*, page 8-48, under bullet point Waste. Waste impacts need to be specified rather than merely referenced to provide a clearer understanding of the risk determination made in this section of the document. (M-16)

Response: *The comment is noted. The SEIS relies to a great degree on impact analyses presented in NUREG-1437. As a supplement, this SEIS does not need to repeat all analysis and conclusions of the GEIS. Appropriate sections of the GEIS are referenced, when necessary. Waste and human health impacts are presented in 10 CFR Part 51, Appendix B, Table B. For ease of review, this table can be found at <<http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part051-appb.html>>. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.2.8 Comments Concerning Decommissioning Issues

Comment: In the General Accounting Office's report regarding the nuclear power plant owners who failed to set aside sufficient funding to pay for the cost of decommissioning nuclear plants after the end of their useful life Exelon was found to be one of the worst offenders thereby potentially leaving us the taxpayers to pick up the billions of dollars in clean up costs. (B-4)

Response: *The comment is noted. The total cost of decommissioning a reactor facility depends on many factors, including the timing and sequence of the various stages of the program, type of reactor or facility, location of the facility, current radioactive waste burial costs, and plans for spent fuel storage. The NRC estimates costs for decommissioning a nuclear power plant range from \$300 to \$450 million.*

NRC regulations regarding accumulation and disbursement of the decommissioning funds provide reasonable assurance that funds will be available for the decommissioning process. Accounts for decommissioning are segregated from the licensee's other assets and remain outside of the licensee's administrative control. The NRC requires nuclear power plant and large materials licensees to report to the agency the status of their decommissioning funds at least once every 2 years, annually within 5 years of the planned shutdown, and annually once the plant ceases operation. Additional information regarding decommissioning is available on the NRC website at <<http://www.nrc.gov/reactors/decommissioning.html>>.

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In accordance with the regulations, Exelon submitted its most recent reports on the status of decommissioning funding for Dresden on March 31, 2003 and October 16, 2003 (see ADAMS accession numbers ML030920302, and ML033010479). The NRC staff provided its summary of the 2003 power reactor decommissioning funding reports in a report to the Commission on March 22, 2004 (ADAMS Accession #ML040830597). The staff concluded that all power reactor licensees appeared to be on track to fund decommissioning by the time they permanently shut down their operating units. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: Section 7.1, *Decommissioning*, page 7-2, Under bullet point Radiation Doses. As the GEIS is based on a forty-year licensing period, an extension of another twenty years would have an impact that needs to be quantified and reported. This information should be included specifically in the final SEIS as part of the risk that would be associated with the license extension. (M-12)

Response: *Environmental impacts from the activities associated with the decommissioning of any reactor before or at the end of an initial or renewed license are evaluated in the GEIS (NUREG-0586, Supplement 1). This statement can be found at the beginning of Chapter 7. The findings from this GEIS are used to support the findings in the SEIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.2.9 Comments Concerning Alternatives

Comment: And just reiterate some of the social economical impact of the loss or denial of a re-licensing of the Dresden Nuclear Station. Not only the primary jobs that would be lost in that denial of license but also many of the secondary losses. (A-1)

Comment: A loss of those jobs would mean a great loss to them not only as the economically but, you know, socially. And the loss of those jobs would mean that most of those people would move from the area. So we not only lose the jobs but we also lose the tax base and that structure that's there behind it. (A-2)

Response: *The comments are noted. The comments are consistent with the findings presented in Chapter 8 of this SEIS. The comments provide no additional information. There were no changes made in the supplement because of these comments.*

Comment: In going with alternative sources of energy and part of the methodology for determining what those impacts were was cost benefit analysis.

If you stop and decode all that vocabulary what that all comes down to is we have to spend more money and create more jobs for pipe fitters, more jobs for boilermakers, more jobs for welders, more jobs for masons and general contractors. If we used other types of power, if we created more and less centralized and safer plants. (G-3)

Response: *Impacts of alternatives, including the socioeconomic impact of the change in workforce requirements for alternative generation facilities are discussed in Chapter 8. For example, as noted in Section 8.2.1.1 under the heading Socioeconomics, a coal-fired plant would have a workforce of about 250 employees, which is much lower than the current Dresden workforce of about 870 employees. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: The Draft Supplement fails to “rigorously explore and objectively evaluate all reasonable alternatives” to renewing the Dresden license, as required by NEPA. 40 C.F.R. [sic] 1502.14(a). In particular, the Draft Supplement erroneously rejects energy efficiency and renewable energy resources as not feasible from an economic, technological, and/or environmental standpoint. The analysis of these alternatives in the Draft Supplement is unsupported and it relies on flawed and outdated information. As explained below, energy efficiency, renewable energy sources, and clean distributed generation, alone or in combination with “clean coal” resources, present a better, lower-cost, safer, and environmentally preferable approach to meeting energy needs than renewing the license for the aging Dresden nuclear power plant. (L-3)

Comment: Second, the Draft Supplement treats wind power and energy efficiency as if both would have to replace Dresden's power on their own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R. [sic] 1502.14(a). (L-10)

Comment: Again, the Draft Supplement treats solar power, wind power and energy efficiency as if each would have to replace Dresden's power on its own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R. [sic] 1502.14(a). (L-14)

Comment: The Draft Supplement does not adequately address the opportunities for meeting baseload power needs through efficient on-site natural gas-fired generation, such as Combined Heat and Power (“CHP”), district energy systems, and fuel cells. Such natural gas distributed

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generation emits substantially less air pollution than coal-fired power plants, and does not pose the high-level waste and safety hazards inherent to nuclear power, and therefore could serve as a cleaner and safer baseload supplement to energy efficiency and renewable energy alternatives. (L-15)

Comment: Again, the Draft Supplement treats this distributed generation, solar power, wind power and energy efficiency as if each would have to replace Dresden's power on its own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R.[sic] 1502.14(a). (L-16)

Response: *The comments are noted. The supplement presents the staff's analysis of the environmental impacts associated with the proposed license renewal and with reasonable alternatives. These impacts are presented in discrete resource areas so that environmental impacts can be compared between the proposed action and reasonable alternatives. The supplement is not an evaluation of the best mix of energy generation sources for the Illinois area or a determination regarding which mix would result in the least overall environmental impacts. The decisions regarding which generation sources to deploy are made by the licensee and state energy planning agencies, not the NRC.*

The viabilities of the various alternatives to renewal of the operating licenses for Dresden are pertinent to the discussion of alternatives to the extent that an alternative is considered reasonable. However, the staff recognizes that although some alternative energy sources, when considered by themselves, may not be viable replacements for Dresden, these alternatives could be part of a combination of generation sources that could replace Dresden Units 2 and 3.

Many possible combinations of alternatives are possible, and these could include combined-cycle gas-fired plants, distributed natural-gas fired generation, clean-coal plants, renewable energy sources such as wind and solar power, energy conservation and many other generation sources. The alternative of a natural-gas fired power plant is discussed in Section 8.2.2 of the supplement. Fuel cells are discussed in Section 8.2.5.9. A likely combination of alternatives that includes 1100 MW(e) of generation from a combined-cycle facility at the Dresden site, 300 MW(e) of energy conservation, and 429 MW(e) purchased from other generators was chosen for discussion in Section 8.2.6 of the supplement. Text in Sections 8.2.5.2, 8.2.5.3, 8.2.5.11, and 8.2.6 has been modified.

Conservation

Comment: The Draft Supplement concludes, with no factual support, that it would not be economically feasible for energy efficiency efforts to replace the power generation that would be lost if the Dresden license renewal was denied. (Draft Supplement Section 8.2.5.11, p. 8-58). The Draft Supplement cites an outdated 1992 study suggesting that energy efficiency improvements cost 4 cents for every kilowatt-hour saved. The Draft Supplement then rejects even this old cost estimate by arguing that: (1) if energy efficiency were really that cost-effective, then it would have already occurred, and (2) replacing the energy produced by Dresden would require such a large-scale energy efficiency effort that the cost of energy efficiency would increase well beyond 4 cents. The Draft Supplement, however, provides no support for these contentions and does not even attempt to estimate today's cost of using energy efficiency to replace the power produced by Dresden. (L-4)

Comment: In contrast to the unsupported analysis provided in the Draft Supplement, recent studies demonstrate that energy efficiency is an even more viable and cost-effective alternative. (L-5)

Comment: Energy efficiency efforts are feasible, and they also provide significant economic benefits. A follow-up analysis of the economic impact of the recommendations in *Repowering the Midwest* concluded that investments in energy efficiency in Illinois would create 43,400 new jobs and \$4.6 billion in additional economic output by 2020 [Environmental Law and Policy Center, et al., *Job Jolt: The Economic Impacts of Repowering the Midwest* (2002), p. 7]. A 1998 ACEEE study of energy efficiency potential in Illinois reached similar results, concluding that investments in energy efficiency would create 59,400 jobs by 2015 and save consumers and business \$76 billion in energy costs between 1999 and 2015 [Marshall Goldbeg, et al., *Energy Efficiency and Economic Development in Illinois* (Dec. 1998)]. Clearly, energy efficiency is a technologically and economically feasible alternative to the renewal of the Dresden operating license.

Perhaps realizing that energy efficiency alternatives cannot be rejected on their merits, the Draft Supplement also asserts that energy efficiency is not viable because utility deregulation has removed the incentive for Exelon to invest in energy efficiency. (Draft Supplement, Section 8.2.5.11, p.8-59). Energy efficiency, however, is a better, cheaper, more distributed and less environmentally destructive alternative. (L-6)

Comment: Whether Exelon and its subsidiaries choose to invest in energy efficiency, or not, that does not remove the NRC's legal obligation under NEPA to "rigorously explore and objectively evaluate all reasonable alternatives," including energy efficiency and renewable energy alternatives, to renewing the Dresden license. 40 C.F.R. 1502.14(a). The point made in the Draft Supplement is legally flawed—an otherwise reasonable alternative cannot be rejected under NEPA simply because an applicant may not want to or cannot carry it out. *Cf.* 42 C.F.R.

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1502.14(c) (agency cannot reject an alternative simply because it is outside the agency's jurisdiction); *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 814 (9th Cir. 1999) (same). Instead, the NRC has the legal authority to tell Exelon a better, cheaper, available and environmentally preferable alternative to license renewal must be considered. The fact that energy efficiency efforts are more likely to materialize as a result of state or federal government initiatives, other public investments and market-based policies and rate structures does not provide a basis for rejecting the economically, technologically, and environmentally feasible alternative of energy efficiency. (L-7)

Response: *The comments are noted. The SEIS presents the staff's analysis of the environmental impacts associated with the proposed license renewal and with reasonable alternatives. Increases in efficiency are technically possible and could result in energy savings that could replace part of Dresden's electrical generation. However, the staff does not believe that a large-scale increase in energy efficiency alone is a reasonable alternative to license renewal. Accordingly, in Section 8.2.6 of the SEIS, the staff evaluated the potential alternative of a reasonable combination of alternatives that would include 1100 MW(e) of generation from a combined-cycle facility at the Dresden site, 300 MW(e) of energy conservation, and 429 MW(e) purchased from other generators 300 MW(e) of energy conservation. The text in Sections 8.2.5.11 and 8.2.6 has been modified.*

Wind Power

Comment: The Draft Supplement's analysis of the feasibility of wind power is also flawed. The Draft Supplement notes that the wind resources in Illinois are sufficient to replace the power currently generated by Dresden. Illinois has a capacity of at least 3000 MW of Class 4 wind sites and 6000 MW of Class 3+ wind sites [U.S. Department of Energy-Wind Powering America, *Illinois Wind Resource Maps*, www.eere.energy.gov/windpoweringamerica/where_is_wind_illinois.html]. (Draft Supplement Section 8.2.5.2, p. 8-53). The Draft Supplement then rejects this alternative for two reasons. First, harnessing this wind power would purportedly be a massive undertaking involving nearly a doubling of current wind generation in the U.S. Second, such extensive development of wind power would result in significant land impacts for the construction of turbines and transmission lines. (Draft Supplement Section 8.2.5.2, p. 8-54). (L-8)

Comment: The Draft Supplement erroneously rejects wind power, which is a viable alternative alone and in combination with energy efficiency and other clean energy alternatives:

First, over time, this would not be a "doubling" of wind generation in the U.S. Technological advancements, as described below, and economic advantages have led to a substantial increase in the amount of wind power installed. . . . (L-9)

Comment: Third, technological advancements are increasing the amount of power created by wind turbines. While the Draft Supplement claims that the largest commercially available wind turbines are between 1 MW and 1.5 MW, GE Wind Energy's own website advertises 2.3–2.7 MW land based turbines, and 3.6 MW turbines designed for offshore use [GE Wind Energy, Our Products, http://www.gepower.com/businesses/ge_wind_energy/en/products.htm]. 5 MW wind turbines may be available in the near future [Ari Reeves, *Wind Energy For Electric Power: A REPP Issue Brief* (Nov. 2003), at 22]. In addition, wind turbines have an availability factor of 98%, higher than most other power sources [American Wind Energy Association, *The Most Frequently Asked Questions About Wind Energy* (2002), p. 5].

Fourth, the cost of wind power has fallen dramatically since the 1980s, with an average generation cost of three to six cents per kilowatt-hour [American Wind Energy Association, "Wind Energy's Costs Hit New Low," press release, March 6, 2001, <http://www.awea.org/news/news010306cew.html>], so that it is now competitive with most other energy sources. In addition, wind power generation has "zero fuel cost" and thus avoids any risk of fluctuating fuel prices.

Fifth, the Draft Supplement improperly limits its analysis to wind resources in Illinois. Six of the 10 states with the highest wind power potential in the U.S. are in the Midwest [American Wind Energy Association, *Wind Energy: An Untapped Resource* (2003)]. Wind farms in neighboring states such as Iowa could be a viable source of energy for Illinois.

In light of these facts, the NRC's concerns regarding the need for substantial growth in the wind industry in order for wind to be a viable alternative are misplaced, especially given that the current operating license for Dresden does not expire for a number of years. (L-11)

Response: *The staff agrees that technological advancements will probably lead to larger turbines and smaller land use requirements. However, staff conclusions in Chapter 8 of this SEIS regarding land use impacts are not dependent upon any threshold value of acres per turbine. It is noted in the GEIS that after installation, turbines occupy only 10 percent of the land committed to wind generation; and most of the remaining land would be available for agriculture or other compatible uses. The potential for disturbance of critical habitats and sensitive areas is more dependent upon the planned location of the wind farm than the number of turbines.*

As stated in 10 CFR 51.95(c)(2), the SEIS for license renewal does not need to discuss cost of power. In relation to alternatives, the cost of power is only presented in support of staff's conclusions regarding the viability of the alternative.

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The staff disagrees with the statement that most new wind facilities would be located near existing transmission lines and notes that the comment is presented without supporting information regarding the availability of transmission lines in areas with developable wind potential. For example, significant transmission line upgrades and extensions have been required for new wind power facilities being developed by MidAmerican Energy (MidAmerican, 2004). Significant upgrades and new transmission lines would likely be required to develop new wind power and the construction and operating impacts associated with these lines as described in the GEIS and Chapter 8 would likely occur.

Although wind power may have a high availability factor, wind facilities usually operate over half of the time at a small fraction of their rated capacity. For example, during summer months, stagnant high pressure areas in the upper Midwest can create both high temperature conditions and low wind speeds. Because the fluctuating generation from a wind farm would be markedly different from the generation from the Dresden plant, wind power alone could not be described as a replacement of Dresden baseload capacity. This is not to say that wind power is not an important generation source. Current plans by utilities for the construction of new wind farms in the Midwest clearly indicate that wind farms are attractive additions to the mix of generation capacity available to utilities (MidAmerican, 2004). This is acknowledged in SEIS, Section 8.2.6, which states that many combinations of alternatives are possible to replace the generation from Dresden. The impacts associated with construction of a new wind farm would be similar to those presented in Table 8-8 of the SEIS for the assumed combination of alternatives at an alternate site. The primary impacts would be from the construction of road and transmission lines and the continuing aesthetic impact of wind turbines and transmission lines. Impacts associated with bird collisions with wind turbines are discussed in NUREG-1437, which describes bird collisions as "likely," but the anticipated number was not quantified. Other impacts, such as waste and air quality, would be smaller for a wind farm. Text in Sections 8.2.5.2 and 8.2.6 has been modified.

Comment: The Draft Supplement also overestimates the impact that an expansion of wind power would have. Nearly 95% of the land devoted to a wind power site remains available for other uses such as agriculture. Most new wind facilities would also be located near existing transmission lines. Therefore, the land impacts of new wind power would not be significant. In addition, wind generation uses no coolant water, has no emissions and does not degrade land. There are very few avian collisions with modern wind turbines [National Wind Coordinating Committee, Avian/Wind turbine Interaction: A Short Summary of Research Results and Remaining Questions (Dec. 2002)]. (L-12)

Response: *The SEIS describes the impacts of the proposed license renewal and of the alternatives to discrete environmental resources such as land use or aesthetics. These impacts are comparable between the proposed action and alternatives. The SEIS does not attempt to*

compare the overall impact of the proposed action to the overall impact of any reasonable alternative. Staff conclusions in Chapter 8 of this SEIS, regarding land use impacts are not dependent upon any threshold value of acres per turbine. It is noted in the GEIS that after installation, turbines occupy only 10 percent of the land committed to wind generation; and most of the remaining land would be available for agriculture or other compatible uses. Impacts are associated with construction and operation. Construction impacts are due to land disturbances, air emissions, and noise during road and transmission line construction and during turbine installation. Operational impacts result from minor waste generation, noise, erosion, and aesthetic impacts of turbines, access roads, and transmission lines. Staff agrees with the commenter that operational impacts on land are smaller than those that would occur during construction. However, impacts of construction in sensitive areas and other continuing impacts during operation, such as the continuing aesthetic impact, could be LARGE, depending on the location of the resource. These impacts do not depend critically on the exact number of acres required for the alternative. Text in Section 8.2.5.2 has been modified.

Solar Power

Comment: The conclusion in the Draft Supplement that Illinois would need a 46-square-mile area of photovoltaic ("PV") cells to replace the power produced by Dresden (Draft Supplement Section 8.2.5.3, p. 8-54) provides a distorted view of the impacts that solar power would have. In particular, the Draft Supplement's suggestion that solar power would have a substantial impact to natural resources and land use ignores the fact that solar power is distributed power. Most solar power units are located on rooftops of buildings, meaning that solar power would not cause land disturbance. In addition, it is important to note that solar PV [photovoltaic] technology has advanced to the point where P.S. are a good source of power, especially in remote areas and to help meet peak power demand. The average solar PV cell has a conversion rate of 12% to 17%, not the 10% assumed in the Draft Supplement. (L-13)

Response: *The range of conversion efficiencies in comment L-13 is presented without supporting information. Section 8.2.5.3 of the SEIS states that currently available photovoltaic cell conversion efficiencies range from approximately 7 to 17 percent, which generally agrees with the comment. A 10 percent efficiency was assumed as a reasonable efficiency for estimating land use requirements. However, assuming 15 percent efficiency, approximately 80 million m², or 80 km² (31 mi²), would be required to replace the generation capacity of Dresden. As a distributed generation source, solar panels could be placed on residential rooftops. Assuming an average home size of 139 m² (1500 ft²) with half of the roof space available for solar panels, each home could support about 70 m² of solar panels. As such, over 1 million homes would have to be retrofitted with solar panels to replace Dresden's generation even with efficiency rates as high as 15 percent. However, staff agrees with the commenter that distributed solar power is an attractive addition to generation sources considered by energy*

planners. As noted in Section 8.2.5 of the SEIS, staff concluded that although solar power alone was not sufficient to replace the generation from Dresden, solar could be used in combination with other reasonable alternatives. The impacts associated with construction of new distributed solar panel arrays would generally be smaller than those presented in Table 8-8 for an alternate site. Text in Sections 8.2.5.3 and 8.2.6 has been modified.

A.2.10 Comments Concerning Issues Outside the Scope the Environmental Review for License Renewal: Operational Safety, Security, & Emergency Preparedness; Safeguards and Security; and Need for Power

Operational Safety, Security, and Emergency Preparedness

Comment: My membership has a great deal of, spends a great deal of time maintaining records, maintaining a livelihood and a lifestyle that allows them to work in that nuclear facility because quite frankly those people that go to work there in that nuclear facility on a day to day basis you're probably safer inside that plant than you would be driving down Interstate 80. You know, as far as safety issues go I've worked in most of the nuclear sites in the Illinois area here. I've directed work in those nuclear sites. I can attest to the safety procedures and plans that are put in place for all work that goes on. Not only the, not only the work but the inspection after the work that there is a great deal of watch and care that is taken in that. (A-4)

Response: *The comment is noted. The NRC's environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. Operational safety is outside the scope of this review. An NRC safety review for the license renewal is conducted separately. Although a topic may not be within the scope of review for license renewal, the NRC is always concerned with protecting health and safety. Any matter potentially affecting safety can be addressed under processes currently available for existing operating licenses absent a license renewal application. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: NRC has buried all my ten allegations against Exelon regarding Exelon's falsification of QA record and oversight of a design of its nuclear reactors and nuclear spent fuel dry casks by its supplier such as General Electric Nuclear Energy, Holtec International, U.S. Tool and Die in its paperwork bureaucracy.

How does NCR allow Exelon or Commonwealth Edison to continue running these plants for another 20 years. Exelon falsified my 1997 audit of a General Electric Nuclear Energy that resulted in 21 findings and shrunk it to 12 but did issue a stop work order.

Exelon willfully bypassed all the provisions of the stop work order as stated by William Betourne, Commonwealth Edison procurement manager and as testified by Kombix Salehi, former ComEd supervisor and NRC agent to prevent any potential shutdown of its reactors when its three other plants were on the watch list.

NRC refused to interview Mr. Betourne and ignored to follow his multiple complaints.

NCR stayed totally absent during the stop work order from 1997 to 2002 when they started finally looking at my investigation or my allegation more than one year after I raised. The code allows, the regulation allows that if there are technical allegations you have to resolve it within 180 days.

Exelon punished all the players of the stop work order. Myself, Kombix Salehi, Edward Netzel and Lon Waldinger.

Exelon falsified human records to show Mr. Waldinger left in September '99 versus the actual date of March 1998.

Oliver Kingsley in his first two weeks of employment at ComEd in November 1997 lifted the stop work order with a willful and deliberate violation of the Code of Federal Regulation and avoided any verification of corrective action by GE and immediately hired the GENE's general manager who was a madman at the exit meeting and was pounding on the table was upset about the stop work order.

David Helwig became the second man in command in Commonwealth Edison and punished anybody who has a fingerprint on the stop work order. We cited GE with a 100 percent failure in the design of the reactors.

If you go on to Google.com or Yahoo.com and search for my name, Oscar Shirani, you could read all the articles with the technical arguments. And I have invited the NRC to come to the technical gurus and challenge me.

So far I have been talking to only NRC managements, no technical people. For Exelon, for the Constellation Energy and the Cooper Energy.

In December 4th, 2002 NRC wrote to Shirani, we substantiated that the stop work order issued by Exelon QA program to GE was lifted based on a vendor's promises rather than verification that an underlying problem had been correct.

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We reviewed this concern to determine what corrective actions if any the licensee was required to implement. We determined due to the age of the concern for 1997 is too old. We limited our review to the current program requirements 2002. Since any problems would be resolved to the current requirements.

I wrote the issues in 1997. They cannot find the procedures they go with the new procedures of ComEd. The current procedures do not require verification that the corrective action has been implemented prior to lifting of the stop work order. How absurd.

This is NRC's blessing of the Exelon's willful violation of the Code of Federal Regulation and you could read 10-CFR-50 Appendix B criteria 16 and 18. It says corrective action has to be promptly taken and a verification shall be performed to verify the corrective action has been implemented to prevent occurrence.

Here the GE has been cited for 100 percent failure of the design but they lift the stop work order and NRC does not have any problem with that.

This is the way that I can, I am refusing to accept the NRC's response that NRC is looking at this case.

Senator Reed has requested from the NRC and I met OIG assistant general in March 20th with David Lockbaum, Paul Gaunther, Kevin Camps from office of Ralph Nader and everybody else and I also met them on 21st and 22nd of July, 2003.

OIG has clearly told me that they are not technical people neither. And they are still waiting to see how they can verify the NRC's investigation on my case.

Regarding the spent nuclear dry cask issues that I raised with the NRC last week I will get a phone call from two reporters from New York. Lauren Miura, reporter from the Greenwire E&E Daily Land Letter on January 9, 2004 wrote, one NRC official said that the agency has not substantiated, remember the letter that it says we substantiated, it says has not substantiated any issue on his claims.

Our inspector general office is looking at this and so far I don't think they have uncovered anything said Steve O'Connor a senior project manager at NRC spent fuel project office. As far as we know these casks are just as safe as when we approved them.

The above NRC's statements contradicts the NRC's correspondence to Shirani on July 10th, 2002 regarding my allegation about Holtec and U.S. Tool and Die, Inc. by stating, based on review of the information provided by you and on the results of an NRC inspection conducted in

response to your allegation, the staff determined that your concerns were substantiated, so we don't even know where the NRC stands.

One of them say not substantiated that the records says were substantiated but they said there was not a result in safety regulatory concerns requiring further NRC action. I have a problem with that.

How did NRC substantiate my allegation and made such a conclusion? Welding flaws are contributing to the already existing design flaws discovered at Holtec and U.S. Tool and Die manufacturing processes and the QA program. I'm not talking about the weld that the welder from ComED came two weeks ago, three weeks ago at Clinton and said we don't have any problem in the welding at the station. I'm not talking about non safety related welds.

I'm talking about the components, safety related components and the weld flaws of the manufacturing and the designers that Exelon does have no control over.

My allegation revealed that Holtec and U.S. Tool and Die QA program were not and still are not in compliance with the Code of Federal regulations and NRC's accepted standards.

Dry casks were and still are built to the same Holtec's QA program which is not in compliance with applicable codes as cited by my repeated audits and Tony Frazier's Quality Controlled inspection.

My repeated audits and Tony Frazier's Quality Control Inspection at U.S. Tool and Die revealed the loss of design change control process for hundreds of nonconforming conditions that were dispositioned by U.S. Tool and Die and Holtec as Us-As-Is and Repair.

If you refer to the codes of Federal Regulation and ASME NQA-1 Supplement 3S where it says that Use-As-Is and Repair is a design change and they were just blessing it off with no design control process.

Hundreds of weld flaws nonconforming conditions were accepted as Use-As-Is and was not subject to the design control process applicable by the codes. (E-1)

Comment: I am in a moment going to employ, implore the other engineers and current employees of Exelon who have information to come forward because there is a large and growing support network for Mr. Shirani and other whistle blowers at NRC licensees and at DOE facilities and the principal engineering labs as well.

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And these people are well motivated. They've come from inside and we would rather have them come out before a large amount of fission products come out of a facility.

So again we're trying to prevent and mitigate serious accidents, all of us are, we believe that. (F-1)

Comment: At this time I would like on behalf of NEIS to endorse a December 1, 2003, letter from the Union of Concerned Scientists where they have written to the reactor inspection section chief, Doug Coe, and to the Division of Inspection Program Management, excuse me, to the agency allegations advisor at NRR, Lisa Marie Geriel, with a subject request for public meeting regarding NRC's handling of allegations and as quality assurance inspection process.

I have been following the dialogue between Mr. Shirani and the NRC staff and the OIG and I'm really disappointed in NRC. I say that to you in all honesty I don't think we're playing on the same team any more.

I have wanted to believe that we were but what I will say is that this is really an essential meeting now to determine that NRC understands the fundamental concerns that Mr. Shiarni has raised to find out what in fact the NRC's resolutions are, what they have offered and to remedy any misunderstandings and to enumerate now the unresolved concerns that we have in the safe energy advocate community.

Let me quote from one paragraph from the bottom of page of this letter from the Union of Concerned Scientists who the NRC with respect to NRC's inspections of quality assurance Mr. Shirani's experience auditing areas shortly before or shortly after NRC inspections of the same areas makes him and the Union of Concerned Scientists question the efficacy of NRC's inspections.

The disparate results from nearly simultaneous examinations with NRC's results always being significantly less critical strongly suggests a serious flaw in the NRC inspection regime. (F-2)

Comment: I will say that I point that document out to you because employee, 10-CFR-50.7 on employee protection. What we are seeing is that the, the promise of employee protection is really rather vacant. It's hollow and it is empty and that in cases where whistle blowers have come forward with very valid concerns and have even have won their many sequential cases and appeals and have won that it sometimes unfolds over an entire decade.

The concern that Mr. Shirani has raised however bear directly on an issue called deliberate misconduct of others. In a particular, 50.5 2A deliberately submitting to the NRC information that the person submitting the information knows to be incomplete or inaccurate. (F-3)

Comment: The safety culture within NRC is deplorable as evidenced by recent surveys that report nearly half of NRC's work force is reluctant to raise safety concerns and a third of those who voice safety concerns feel they have been retaliated against for it. The public cannot trust NRC management when so many workers do not. (F-4)

Response: *The transcripts of Mr. Shirani's comments have been made available to the NRC Office of Investigations, the NRC Inspector General's office and the NRC Region III Allegations Coordinator for use in conjunction with reviews and investigations that may already be in progress regarding Mr. Shirani's interests. Any appropriate NRC staff responses to Mr. Shirani will be made within the framework of those actions. No further response within the scope of this environmental review is warranted. There were no changes made in the supplement because of these comments.*

Comment: We're talking about a pair of reactors they've spent more than seven and a half years on NRC's close watch list back when you guys maintained a close watch list.

I think that's very germane to license extension. You know, particularly, I mean when a pressure vessel was new or newer anyway and less embrittled, you know, and when the welds were newer they couldn't get these things to work.

So now, you know, we're going to let the ravages of time continue and we expect better performance. That boggles my mind. I don't see any logical reason that we should assume that. (G-2)

Response: *The comment is noted. The NRC's environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. An NRC safety review is conducted separately. Although safety issues may not be within the scope of the environmental review for license renewal, the NRC is always concerned with protecting public health and safety. Any matter potentially affecting safety can be addressed under processes currently available for existing operating licenses absent a license renewal application. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: I'm also a member of the Troy Fire Protection District which is involved in the disaster plans for the station, and they're very thorough and they're very, some things that you have to do, that you hope you never have to use. (H-4)

Response: *The comment is noted. The NRC's environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. Emergency preparedness is outside the scope of this review. An NRC safety review is conducted separately. Although emergency preparedness may not be within the scope of the*

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environmental review for license renewal, the NRC is always concerned with protecting public health and safety. Any matter potentially affecting safety can be addressed under processes currently available for existing operating licenses absent a license renewal application. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Safeguards and Security

Comment: In regards to security issues and in the last two and a half years the whole security scenario has been greatly enhanced at the, at all of the nuclear sites in this country. (A-3)

Response: *In a recent decision in another license renewal proceeding, the Commission discussed the terrorism and sabotage issues raised in the comments. See Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2, and Catawba Nuclear Station, Units 1 & 2), CLI-02-26, 56 NRC 358,365. In that decision, the Commission found that NEPA imposes no legal duty on the NRC to consider intentional malevolent acts on a case-by-case basis in conjunction with commercial power reactor license renewal applications. The Commission concluded that the “environmental” effect caused by third-party miscreants is simply too far removed from the natural or expected consequences of agency action to require a study under the National Environmental Policy Act (NEPA) of 1969.*

The Commission has also indicated that terrorism differs from matters ordinarily considered in an environmental impact statement (EIS). An EIS may discuss, for example, such matters as likely effects on local water, air quality, vegetation, wildlife, culture, and socioeconomic concerns. These effects are reasonably certain; an EIS can quantify them to a fair degree of precision. Terrorism, by contrast, comes in innumerable forms and at unexpected times and places. It is decidedly not predictable, and it is not a natural or inevitable byproduct of renewing the license. For these reasons, the Commission has stated that an EIS is not an appropriate format in which to address the challenges of terrorism.

In its recent license renewal decision, the NRC also noted that, particularly in the case of a license renewal application, where reactor operation will continue for many years regardless of the Commission’s ultimate decision, it is sensible to concentrate on how to prevent a terrorist attack in the near term at already licensed facilities instead of trying to assess impacts of an attack during the license renewal period. Finally, the Commission determined that there appears to be little practical benefit in conducting a license renewal terrorism review.

Nevertheless, the Commission did indicate that its decision not to use NEPA as a vehicle for a terrorism review does not mean that it is ignoring the issue. Rather the Commission continues

to closely examine the current security and protective framework and orders interim improvements at licensed nuclear facilities, including reactors, if needed.

The comments provide no additional information. There were no changes made in the supplement because of these comments.

Need for Power

Comment: The NRC's analysis in the Draft Supplement fails to comply with the requirements of the National Environmental Policy Act ("NEPA"). First, the Draft Supplement fails to contain an analysis of whether or not there is a need for the power created by Dresden. Second, the NRC has not complied with its legal duty to objectively evaluate energy efficiency, renewable energy resources, and other clean energy resources, both individually and in combination, as viable alternatives to the renewal of the Dresden operating license. (L-1)

Response: *The comment is noted. As stated in 10 CFR 51.95(c)(2), the SEIS for license renewal does not need to include a discussion of the need for power. Reasonable alternatives that include energy efficiency and renewable energy are discussed in Section 8 of the SEIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: The environmental analysis of the Dresden license renewal application is carried out pursuant to NRC regulations that violate NEPA by improperly constraining its scope. In particular, 10 C.F.R. 51.95(c) provides that the NRC need not consider "the need for power" in determining whether or not to grant a license renewal for Dresden. The need for power, however, is at the heart of the purpose and need statement which, in turn, serves as the baseline by which the reasonableness of various alternatives are measured. Without this essential factor, there is no way for the NRC to use the EIS process to accurately weigh alternatives against one another or to conclude whether it is appropriate to allow Dresden to continue operating for an additional 20 years. While the NRC suggests that State governments can consider the need for power at some later date, it clearly violates NEPA to abdicate the analysis of the "need for power" issue to non-federal decisionmakers long after the EIS process has been concluded. (L-2)

Response: *The NRC disagrees. When formulating the purpose and need for a particular action, an agency should take into account the needs and goals of the parties involved in the application. The agency should also consider the views of Congress, to the extent that the agency can determine them, in the agency's statutory authorization to act and in other Congressional directives. Once an agency has considered the relevant factors, it must define the goals for its action that fall somewhere in the range of reasonable choices. In the license*

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renewal context, the NRC has adopted a definition of the purpose and need for license renewal reviews as providing “an option that allows power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs, as such needs may be determined by state, utility, and where authorized, Federal (other than NRC) decisionmakers.” This purpose and need reflects the Commission’s recognition that, absent findings in its safety review or NEPA analysis, the NRC has no role in the energy planning decisions of State regulators and utility officials. From the perspective of a licensee or State regulator, the purpose of license renewal is to maintain the availability of the nuclear plant to meet system energy requirements beyond the term of the plant’s current license. The underlying need for power that will be met by the continued availability of the nuclear plant is defined by the various operational and investment objectives of the licensee that may be dictated or strongly influenced by State regulatory requirements or State energy policy and programs or, in special circumstances, by Federal agencies such as the Federal Energy Regulatory Commission or Tennessee Valley Authority. These various entities may place different emphasis on lower energy costs, increased efficiency of energy production, reliability in generation and distribution of electric power, improved fuel diversity, and environmental objectives such as improved air quality and minimization of land use. Thus, the NRC’s identification of the purpose and need for license renewal strikes a reasonable balance between the NRC’s mission, the licensee’s needs and the State’s (or in limited situations, Federal agency’s) objectives.

The comment also suggests that the NRC’s choice of purpose and need prevents the NRC from accurately weighing alternatives against one another. The NRC’s role in evaluating the environmental impacts of license renewal is to determine whether the impacts of license renewal are so great that preserving the option of continued operation for energy planning decisionmakers would be unreasonable. To make that determination, the NRC examined a range of alternatives that included a net reduction in electricity generation with no replacement power, demand side management and energy conservation, electricity generated from other sources, and some combination of these alternatives. The impacts from these alternatives are discussed in detail in the Supplemental EIS.

Lastly, 10 C.F.R. § 51.95(c) was developed through notice and comment rulemaking. Accordingly, there was an opportunity to participate in the rulemaking process by submitting comments on the proposed rule language. During the rulemaking, the NRC received and responded to several comments regarding consideration of the need for power and provided a detailed explanation of its decision. In addition, NRC regulations provide an opportunity for any person to request that the NRC undertake certain actions, including petitioning for a rulemaking. However, absent a revision, NRC regulations explicitly state that NRC evaluation of the “need for power” is not required for license renewal environmental reviews.

On balance, the NRC has chosen a definition of purpose and need for its Supplemental EIS and has evaluated a set of alternatives that are fully consistent with NEPA. In addition, properly promulgated regulations govern the definition of purpose and need for a license renewal EIS. Therefore, the NRC will not consider the “need for power” as part of this EIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: For the above reasons, the NRC should complete a rigorous and objective analysis of the need for power and reasonable alternatives such as energy efficiency, renewable energy resources, clean distributed generation, and "clean coal" resources before deciding whether or not to relicense the aging Dresden nuclear power plant. 40 C.F.R. 1502.14(a). (L-17)

Response: *The comments are noted. As stated in 10 CFR 51.95(c)(2), the supplemental EIS for license renewal does not need to include a discussion of the need for power. Reasonable alternatives that include energy efficiency and renewable energy are discussed in Section 8 of the SEIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.2.11 Editorial Comments

Comment: Page 1-8, line 1. Change “. . . mechanical draft cooling towers and then recycled . . .” to “. . . mechanical draft cooling towers, cooling canal, and pond and then recycled . . .” This wording change is in keeping with the wording used elsewhere in the report. (J-1)

Response: *Text in Section 1.3 has been modified.*

Comment: Figure 2-4. This figure should be updated to show the location of the Extended Power Uprate cooling towers. (J-2)

Response: *Text in Section 2.1.3 has been modified.*

Comment: Page 2-9, lines 30-31. Change “An additional six cooling tower cells are currently under construction” to “An additional six cell cooling tower is available for operation.” Construction and testing of these additional cooling tower cells has been completed. (J-3)

Response: *Text in Section 2.1.3 has been modified.*

Comment: Page 2-32, line 14. Change “. . . reviewed the applicant=s ER and . . .” to “. . . reviewed the applicant’s ER and . . .” Correct spelling. (J-4)

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Response: *Text in Section 2.2.8 has been modified.*

Comment: Page 2-43, line 28. Change “. . . canal=s significance . . .” to “. . . canal’s significance . . .” Correct spelling. (J-5)

Response: *Text in Section 2.2.9.1 has been modified.*

Comment: Page 2-44, line 40. Change “. . . Native American tribes has been initiated” to “. . . Native American tribes has been completed.” Wording change needed for final report. (J-6)

Response: *Text in Section 2.2.9.2 has been modified.*

Comment: Page 2-44, line 40. Change “. . . Joliet Arsenal Project–Midewin Prairie . . .” to “. . . Joliet Arsenal Project–Midewin National Tall Grass Prairie. . .” This wording change includes the full name of the area being discussed in this section. (J-7)

Response: *Text in Section 2.2.10 has been modified.*

Comment: Page 4-19, line 22. Change “. . . Additional cooling towers are scheduled to be added . . .” to “. . . Additional cooling towers have been added . . .” Construction and testing of these additional cooling tower cells has been completed. (J-8)

Response: *Text in Section 4.1.5 has been modified.*

Comment: Page 4-44, lines 4-5. Change “. . . The staff is currently consulting with the FWS under provisions of Section 7 of the Endangered Species . . .” to “. . . The staff has consulted with the FWS under provisions of the Endangered Species . . .” Wording change needed for final report. (J-9)

Response: *Text in Section 4.6 has been modified.*

Comment: Page 4-44, line 7. Change “. . . The results of that consultation will be incorporated in the final SEIS . . .” to “. . . The results of the consultation have been incorporated in the final SEIS . . .” Wording change needed for final report. (J-10)

Response: *Text in Section 4.6 has been modified.*

Comment: Page 4-51, lines 21-22. Change “. . . On the basis of this preliminary analysis of cultural resources, . . .” to “. . . On the basis of this analysis of cultural resources, . . .” Wording change needed for final report. (J-14)

Response: *Text in Section 4.8.4 has been modified.*

Comment: Page 8-45, line 15. Change “. . . not compensate for Dresden Units 2 and 3 . . .” to “not compensate for the loss of Dresden Unit 2 and 3 . . .” Correct grammatical uses in the sentence. (J-19)

Response: *Text in Section 8.2.5.2 has been modified.*

Comment: Page 8-57, line 39. “. . . DOE has a performance target that in 2000 two . . .” to “. . . DOE had a performance target that in 2000 two . . .” Correct grammatical uses in the sentence. (J-20)

Response: *Text in Section 8.2.5.9 has been modified.*

Comment: Spelling of the word 'sue' in Dresden DEIS pg G-29, line 25 should be changed to 'use'. (J-23)

Response: *Text in Section G.7 has been modified.*

Comment: Section 2.2.4, *Air Quality*, page 2-24, second paragraph. The last sentence has a temperature listed as “B11°C” instead of -11°C. This needs to be corrected to reduce the possibility of confusion. (M-4)

Response: *Text in Section 2.2.4 has been modified.*

Comment: Section 2.2.7, *Radiological Impacts*, page 2-31, last paragraph. The references to the environmental standards need to be complete citations, including title of the rule or regulation, along with the basic standards for comparison. This will reduce the time needed to look up these citations and verify values that are cited in the text. (M-5)

Comment: Section 8.2.3.1, *Closed-Cycle Cooling System*, page 8-48, Under bullet point Human Health. Human-health impacts need to be specified rather than merely referenced to provide a clearer understanding of the risk determination in this section of the document. (M-17)

Response: *In developing this SEIS, the staff followed Council on Environmental Quality (CEQ) Regulations for Implementing NEPA found in Part 1502, Sec. 1502.7, “Page limits,” which states “The text of final environmental impact statements (e.g., paragraphs (d) through (g) of Sec. 1502.10) shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages.” In developing the format for supplements to the GEIS, the Commission has tried to balance the guidance in CEQ regulations with the need to present enough of the information on which the staff's analysis are based for a reviewer to*

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understand the staff's conclusions. In some cases, a reviewer may want or need to understand cited documents or standards that are not fully presented in the text. However, the staff assumes most reviewers will be able to access the cited documents online. Accordingly, the full and complete citations have not been included. The comment provides no additional information. There were no changes made in the supplement because of this comment.

Comment: Section 4.3, *Radiological Impacts of Normal Operations*, page 4-25, Paragraph 5. The specific values for exposure need to be provided in addition to the complete citation of the location of this information. This will help to provide the information more clearly than a citation only, that then must be referred to allow verification of the standard being cited. (M-7)

Response: *It is unclear what this comment refers to. Section 4.3, Radiological Impacts of Normal Operations, page 4-25, Paragraph 5, does not have any statements regarding exposure. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

Comment: Section 4.8.3, *Cumulative Radiological Impacts*, page 4-48, Paragraph 1. Information or procedures used to generate values to support the assertions in this section need to be provided in a clearer manner to reduce the possibility of misunderstandings and to make explicit the reasoning on procedures to reach these conclusions. (M-8)

Response: *In developing this SEIS, the staff followed Council on Environmental Quality (CEQ) Regulations for Implementing NEPA regarding the length of final environmental impact statements. Accordingly, the staff has summarized information used in the SEIS analyses if that same information can be found on-line. The Dresden Units 1, 2, and 3 Annual Radiological Environmental Operating Report for 2002 can be found in the NRC Electronic Reading Room using the ADAMS accession number, ML031420059.*

Comment: Section 8.1, *No-Action Alternative*, page 8-4, under the bullet point Human Health. The actual value representing the cited percent value should be specifically provided in addition to the citation. This will help to reduce unnecessary additional research, except for value verifications, and potential misunderstandings or confusion as to the actual value(s) being specified. (M-13)

Response: *In developing this SEIS, the staff followed Council on Environmental Quality (CEQ) Regulations for Implementing NEPA regarding the length of final environmental impact statements. Accordingly, the staff has summarized information used in the SEIS analyses if that same information can be found on-line. The value referred to can be found in NUREG-0586, Supplement 1, Volume 1, Generic Environmental Impact Statement of Decommissioning of Nuclear Facilities Supplement 1 Regarding the Decommissioning of Nuclear Power Reactors,*

published November 2002. This document can be found at the NRC website: <<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0586/>>. Text in Section 8.1 has been modified to include the reference for the stated value.

Comment: Appendix D, *Organizations Contacted*, page D-1, D-2. The United States Environmental Protection Agency was not contacted as one of the cognizant environmental agencies. Please provide the rationale for this procedure. (M-18)

Response: *The NRC recognizes that it must afford the EPA the opportunity to review and publicly comment on the environmental impacts of major Federal actions, including actions which are the subject of draft and final Environmental Impact Statements (EISs), proposed environmental regulations, and other proposed major actions. While this action is not considered a major Federal action, the NRC elected to develop an EIS to inform its decision and, therefore, follows EPA's coordination and filing requirements under Section 309 for all EISs. Section 309 coordination is a statutory mandate on all Federal agencies and, therefore, not subject to procedural control at the NRC. In keeping with EPA's implementation process, the NRC provides the appropriate number of copies to EPA and publicly distributes the EIS prior to its filing with the EPA; subsequently, EPA issues a Federal Register Notice of Filing, which is the official date of issuance of the EIS. The comment provides no additional information. There were no changes made in the supplement because of this comment.*

A.3 Public Meeting Transcript Excerpts and Comment Letters

Transcript of the Afternoon Public Meeting on January 14, 2004, in Morris, Illinois

[Introduction by Mr. Cameron and Mr. Tappert]

[Presentation by Mr. Eads]

[Presentation by Mr. Wheeler]

[Presentation by Mr. McDowell and Mr. Palla]

[Presentation by Mr. Wheeler]

MR. CAMERON: Okay. Thank you very much, Duke. I think we're ready to move on to the speakers but I guess I should ask did I forget any other NRC presenters? Are we done. All right. And I would ask you to come up to the podium but if you feel more comfortable speaking from your seat I'll bring this to you.

Our first three speakers tonight first we're going to Mr. Benjamin Kosiek. And then to Cynthia Sauer and then to Oscar Shirani. And I would ask Mr. Kosiek to come up and hopefully I've pronounced that correctly.

MR. KOSIEK: My name is Ben Kosiek. I'm the assistant business manager for Boilermakers Local No. 1 in Chicago, Illinois whose jurisdiction encompasses the Dresden Nuclear Power Plant.

I'm here to thank the NRC for the hard work that they've done in the environmental impact study that they have here. And just reiterate some of the social economical impact of the loss or denial of a re-licensing of the Dresden Nuclear Station. Not only the primary jobs that would be lost in that denial of license but also many of the secondary losses. I represent, you know, just one of the many organizations whose workers work at the Dresden Nuclear site.

I have a number of members who are neighbors of those residents who are probably seated here in the audience. They live, they work, they send their children to schools here. I visit the same hospitals, the doctors and everyone else in this area.

A loss of those jobs would mean a great loss to them not only as the economically but, you know, socially. And the loss of those jobs would mean that most of those people would move from the area. So we not only lose the jobs but we also lose the tax base and that structure that's there behind it.

A-1

A-2

As a member I have worked at the Dresden Nuclear site and I represent a membership that does work there on a relatively frequent basis.

A-3 | In regards to security issues and in the last two and a half years the whole security scenario has been greatly enhanced at the, at all of the nuclear sites in this country.

A-4 | My membership has a great deal of, spends a great deal of time maintaining records, maintaining a livelihood and a lifestyle that allows them to work in that nuclear facility because quite frankly those people that go to work there in that nuclear facility on a day to day basis you're probably safer inside that plant than you would be driving down Interstate 80.

You know, as far as safety issues go I've worked in most of the nuclear sites in the Illinois area here. I've directed work in those nuclear sites. I can attest to the safety procedures and plans that are put in place for all work that goes on. Not only the, not only the work but the inspection after the work that there is a great deal of watch and care that is taken in that.

A-5 | And I'm just here to speak in favor of the re-licensing of the Dresden Plant. Thank you.

MR. CAMERON: Okay. Thank you, Ben.

Next we're going to go to Cynthia Sauer. And while Cynthia is coming up just let me remind people that there is fresh coffee back there and water if you would like some.

MS. SAUER: Good afternoon and thank you very much for the opportunity to provide public comment this afternoon.

As some of you present you are aware that I initially expressed my concerns on July 10th of 2003 at the GEIS meeting.

Since November 14th, 2003 I have been in discussion with individuals from the NRC relative, oh, sorry. I have been in discussion with individuals from the NRC and I would like to acknowledge that I have been receiving information relative to the NRC's process for responding to my issues.

I still have many unanswered questions which I hope will be resolved in the near future.

I wish to address the statement in the draft which cites my concerns. Since it is not an accurate representation I am here this afternoon to once again state my concerns.

Appendix A

B-1

As a private citizen of Grundy County and a concerned parent of a child with brain cancer I am alarmed by the rising cancer statistics for this county and feel that before the United States Nuclear Regulatory Commission allows the Exelon Corporation to continue to operate its Dresden plant for another 20 years it should evaluate whether radioactive emissions or radioactive by products from the plant are contributing to these trends.

The statistics I am concerned about are as follows and I would like to note here that these statistics were obtained from the Illinois Department of Public Health and the national center for health statistics and can be obtained from their respective websites.

Infant and child health. Comparing the time periods of 1990 through '94 to 1995 through 2000 the rates of the following have risen in Grundy County at rates much higher than in the State of Illinois.

Infant mortality or deaths under age one year increased 98 percent in Grundy County while the State showed a decrease of 11 percent.

Infant mortality is considered an excellent indicator of the health of a community.

Comparing the rate of infant mortality in the two periods showed Grundy County going from a rate that was approximately two thirds of the State rate to a rate approximately one and a half times as high.

Births under five and a half pounds increased 35 percent in Grundy versus the state's 11 percent increase. Births with congenital defects rose 13 percent in Grundy County more than double the rate of the overall state's increase of six percent.

Cancer cases in Grundy County for ages 15 years and under increased 378 percent. 30 times as compared to this 13 percent increase in the State.

Cancer deaths in adults from 1993 through '95 to 1995 through 2000 showed death rates for all cancers combined in Grundy County adults exceeded those of Illinois with the most dramatic being the cancer deaths in the 25 through 44 age group that was up 42 percent compared to the state's decrease of eight percent.

B-2

Obviously we have a problem here in Grundy County. These statistics are frightening and cannot be ignored. Yet when I ask various State and Federal agencies about these situations I am met with resistance and an unwillingness to further investigate the reason for this rising trend.

The previous studies done in the past and elsewhere cannot have the answers for this increase and are not justification for not investigating this current situation.

Who has to be the next cancer victim before something is done. Will it be your wife, husband, your brother, sister or your son or little girl?

B-3

I understand the Exelon Corporation has a significant economic impact on Grundy County but does this mean that financial gains are priority over the health and safety of the children and adults who live in this community.

Despite the evidence in this draft report the Exelon Corporation has a history of some significant problems. Exelon Corporation made a settlement agreement with the Illinois Attorney General's office for violations of the safe drinking water act dating back to 1990 and reimbursed the State for wildlife that perished as a result of one of these violations.

They procured a protective order when asked to answer questions regarding the disposal or release of triacetated water or radioactive contaminants since 1990.

The NRC itself has cited Exelon on at least two occasions for providing them with inaccurate and incomplete information.

B-4

In the General Accounting Office's report regarding the nuclear power plant owners who failed to set aside sufficient funding to pay for the cost of decommissioning nuclear plants after the end of their useful life Exelon was found to be one of the worst offenders thereby potentially leaving us the taxpayers to pick up the billions of dollars in clean up costs.

The list of violations go on and rather than I continue I encourage you to view them on the Nuclear Regulatory Commission's website.

B-5

It appears from these incidents that the Exelon Corporation does not have a high regard or respect for the rules and regulations of the various governing bodies over them and more importantly for the health and safety of the men, women and children who live in the area surrounding their nuclear reactors and high level waste storage pool.

As evidenced not only by the violations but in email correspondence records that I have obtained through the freedom of information act in my quest for answers to my questions. For those of you whom I have been in communication with none of what I have stated should come as a surprise.

B-6

The NRC states its role is that of protecting public health and safety and of the environment. There is something wrong here in Grundy County. Who and what are making our children sick.

Appendix A

I challenge each and everyone of you here this afternoon to accept your responsibility to strictly enforce and demand complete and honest adherence to the rules and regulations put forth for the protection of public health and safety as well as that of the environment despite monetary or political pressures.

At this time there's an excerpt from author Max Locato that I feel is very fitting. This is no cruise ship. We are on a battleship. We are not called to a life of leisure. We are called to a life of service. Each of us has a different task. Though different we are the same. Each can tell of a personal encounter with the captain. For each has received a personal call.

For those of you involved in the safety of nuclear energy who may have forgotten your call I feel Sara in her own words can best remind you of your call and responsibility.

MS. SARAH SAUER: Please protect the children from this awful disease and please don't put bad things in our water and air. Thank you.

MS. SAUER: Once again I thank you and I ask that you keep Sarah, my family and all the Sarah in your prayers. Thank you.

MR. CAMERON: Okay. Thank you, Cynthia, and thank you Sarah. And thank you for stating that data on health affects so clearly for us and we also note the point between past studies not necessarily meaning that there should not be an new study.

And I guess in that context for information for everybody I would just ask our health physicist, Trash Milligan whether there are any other studies that we're going to be factoring in or looking to in terms of the draft environmental impact statement that people should know about? Okay.

MS. MILLIGAN: Good afternoon. My name is Patricia Milligan. I'm a certified health physicist with the Nuclear Regulatory Commission. I also have a background in the medical world. I'm a pharmacist and I've spent a number of years doing nuclear pharmacy before I got into power plant health physics away from medical health physics.

The State of Illinois in response to concerns that were raised a couple of years ago by the radiation public health project did an evaluation of the pediatric cancer incidents and proximity to nuclear facilities.

They published this in a newsletter that was mailed out to a variety of folks and we've made several copies available to those who are interested in the foyer.

C-1

They looked at the studies that were presented by Mr. Mangano and others from the Radiation and Public Health Project and were unable to come up with what they, and I'll ready their words, failed to find significant and meaningful cancer incident rate differences for Illinois children residing in counties with nuclear facilities as compared to those with comparable counties without such facilities.

They've done extensive work. I've talked recently to the agency for substance toxin, for toxic diseases and substance registry on and they will be examining some of these statistics to see if there is something that was missed in the original Illinois evaluation.

As far as the infant mortality those are certainly alarming numbers when you hear 98 percent increases in Grundy County in infant mortality when you look at the period of time.

There are several factors that go into infant mortality that are well established not only in this country but across the world. And they include risk factors such as conception, age at conception, health and nutritional status of the mother, socioeconomic status of the mother, education of the mother, domestic violence is an important risk factor. Some infections including reproductive tract infections as well as periodontal infections interestingly enough.

Substance abuse which includes tobacco, alcohol and other drugs both illegal as well as prescriptive drugs. Closely spaced pregnancies, inadequate prenatal care, inadequate folic acid intake and positioning babies on their stomachs at night when they go to sleep.

These are all important contributions to infant mortality. Until a study can examine the impacts of each of these factors it's difficult to draw meaningful conclusions by simply looking at infant mortality tables.

Using the same sort of analysis going across all the counties you'd need to look at each, you'd need to look at Grundy County compared with control counties, compared with other nuclear counties as well before you could draw conclusions to say that this power plant is directly linked to infant mortality increase or decrease.

MR. CAMERON: Okay. I guess can we, and you said that we sent some information to the agency for —

MS. MILLIGAN: Yes, we did.

MR. CAMERON: And we can send a copy of the statistics as presented by —

MS. MILLIGAN: Yes, we can.

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MR. CAMERON: — Cynthia to them and I just would note again her comment that past studies do not necessary mean or do not mean there shouldn't be a new study.

Mr. Sauer, do you want to make a comment for us?

DR. SAUER: Okay. Let me —

MR. CAMERON: Okay. Why don't you come up.

DR. SAUER: I did not come here, let me introduce myself first. I am Dr. Joseph Sauer. I'm a practicing obstetrician and gynecologist in Grundy and Will County. In addition my background I have a degree in bio medical and electrical engineering.

I did not come here intending to speak today. However I think some things need to be clarified.

First and foremost Trisha's [Milligan's] comments relating to infant mortality are very valid, very vague and very deceptive.

In that data published in the IDPH it clearly indicated that during this time frame there was actually a reported decrease in alcohol use. A decrease use in cigarettes. In addition there was an increase in first trimester prenatal care. In other words people were seeking out care initially meaning they had ready access to it.

I am hard pressed to think of any major economic or environmental changes outside of those areas that would have dramatically changed from the early 90s to the late 90s.

In regards to the study that she's referring **from** the IDPH it is a very cleverly drafted study with serious and significant flaws to it.

When you are going to design a study the results are only as good as the design of it. In that study what they did was choose counties with nuclear reactors in them and compared the overall population in that county to populations of counties that did not have a nuclear reactor. Included were several of the nuclear reactors in this area. Including LaSalle, Dresden and Braidwood.

If you look at the population of Grundy County it is approximately 40,000 people. If you look at the county of Will County it is over 500,000. Therefore Grundy County becomes almost insignificant in this study.

D-1

In addition most of the research relating to effects of nuclear plants have a 10 at most 15 mile radius. If you draw a 10 mile radius around the Braidwood facility which is listed in Will County you do not get to any of the population of the larger towns. In essence 90 percent of the people in Will County which is considered in the nuclear side live in non nuclear conditions.

Braidwood is closer to Grundy County than to any of the major cities within Will County. So if you take 500,000 people and put them on the nuclear side and don't give them any effects you have completely negated the data.

Now I'm unaware of the other counties. I didn't research each and every one. But traditionally nuclear plants have been located in rural areas. Therefore the large majority of each county will not be affected by the nuclear plant.

That does not excuse any effects that are caused in those communities because smaller towns despite not having political power are important. However, it completely makes the study irrelevant when you are comparing people who have not had exposure on either side and then stating that they're not statistically different. Thank you.

MR. CAMERON: Okay. Thank you, Dr. Sauer for completing that picture for us. And we're going to go to Mr. Shirani now. Oscar.

MR. SHIRANI: I would like to — on the record.

MR. CAMERON: Okay. And we will put this on the record.

MR. SHIRANI: Good afternoon. Thanks for the opportunity for me to speak today.

I raised some of these questions at the July 10th, 2003, at the NRC public hearing and I did not receive any response.

I'm Oscar Shirani again. I have a PE professional engineering license. I have a master's degree from George Washington University and bachelor's from West Virginia Institute of Technology.

I have developed a lot of technical courses and I have taught courses at the American Society of Mechanical Engineering pressure vessel piping. I have taught more than 300 engineers on Commonwealth Edison. I have developed more than six to eight standards for Commonwealth Edison which saves them six to eight millions of dollars. Each one is on the record.

So I did make my contribution and I was not anti nuclear. I am anti unsafe operations of the nuclear power plants. I'm against falsification of records.

Appendix A

E-1

NRC has buried all my ten allegations against Exelon regarding Exelon's falsification of QA record and oversight of a design of its nuclear reactors and nuclear spent fuel dry casks by its supplier such as General Electric Nuclear Energy, Holtec International, U.S. Tool and Die in its paperwork bureaucracy.

How does NCR allow Exelon or Commonwealth Edison to continue running these plants for another 20 years. Exelon falsified my 1997 audit of a General Electric Nuclear Energy that resulted in 21 findings and shrunk it to 12 but did issue a stop work order.

Exelon willfully bypassed all the provisions of the stop work order as stated by William Betourne, Commonwealth Edison procurement manager and as testified by Kombix Salehi, former ComED supervisor and NRC agent to prevent any potential shutdown of its reactors when its three other plants were on the watch list.

NRC refused to interview Mr. Betourne and ignored to follow his multiple complaints.

NCR stayed totally absent during the stop work order from 1997 to 2002 when they started finally looking at my investigation or my allegation more than one year after I raised. The code allows, the regulation allows that if there are technical allegations you have to resolve it within 180 days.

Exelon punished all the players of the stop work order. Myself, Kombix Salehi, Edward Netzel and Lon Waldinger.

Exelon falsified human records to show Mr. Waldinger left in September '99 versus the actual date of March 1998.

Oliver Kingsley in his first two weeks of employment at ComEd in November 1997 lifted the stop work order with a willful and deliberate violation of the Code of Federal Regulation and avoided any verification of corrective action by GE and immediately hired the GENE's general manager who was a madman at the exit meeting and was pounding on the table was upset about the stop work order.

David Helwig became the second man in command in Commonwealth Edison and punished anybody who has a fingerprint on the stop work order. We cited GE with a 100 percent failure in the design of the reactors.

If you go on to Google.com or Yahoo.com and search for my name, Oscar Shirani, you could read all the articles with the technical arguments. And I have invited the NRC to come to the technical gurus and challenge me.

So far I have been talking to only NRC managements, no technical people. For Exelon, for the Constellation Energy and the Cooper Energy.

In December 4th, 2002 NRC wrote to Shirani, we substantiated that the stop work order issued by Exelon QA program to GE was lifted based on a vendor's promises rather than verification that an underlying problem had been correct.

We reviewed this concern to determine what corrective actions if any the licensee was required to implement. We determined due to the age of the concern for 1997 is too old. We limited our review to the current program requirements 2002. Since any problems would be resolved to the current requirements.

I wrote the issues in 1997. They cannot find the procedures they go with the new procedures of ComEd. The current procedures do not require verification that the corrective action has been implemented prior to lifting of the stop work order. How absurd.

This is NRC's blessing of the Exelon's willful violation of the Code of Federal Regulation and you could read 10-CFR-50 Appendix B criteria 16 and 18.

It says corrective action has to be promptly taken and a verification shall be performed to verify the corrective action has been implemented to prevent occurrence.

Here the GE has been cited for 100 percent failure of the design but they lift the stop work order and NRC does not have any problem with that.

This is the way that I can, I am refusing to accept the NRC's response that NRC is looking at this case.

Senator Reed has requested from the NRC and I met OIG assistant general in March 20th with David Lockbaum, Paul Gaunther, Kevin Camps from office of Ralph Nader and everybody else and I also met them on 21st and 22nd of July, 2003.

OIG has clearly told me that they are not technical people neither. And they are still waiting to see how they can verify the NRC's investigation on my case.

Regarding the spent nuclear dry cask issues that I raised with the NRC last week I will get a phone call from two reporters from New York. Lauren Miura, reporter from the Greenwire E&E

Appendix A

Daily Land Letter on January 9, 2004 wrote, one NRC official said that the agency has not substantiated, remember the letter that it says we substantiated, it says has not substantiated any issue on his claims.

Our inspector general office is looking at this and so far I don't think they have uncovered anything said Steve O'Connor a senior project manager at NRC spent fuel project office. As far as we know these casks are just as safe as when we approved them.

The above NRC's statements contradicts the NRC's correspondence to Shirani on July 10th, 2002 regarding my allegation about Holtec and U.S. Tool and Die, Inc. by stating, based on review of the information provided by you and on the results of an NRC inspection conducted in response to your allegation, the staff determined that your concerns were substantiated, so we don't even know where the NRC stands.

One of them say not substantiated that the records says were substantiated but they said there was not a result in safety regulatory concerns requiring further NRC action. I have a problem with that.

How did NRC substantiate my allegation and made such a conclusion? Welding flaws are contributing to the already existing design flaws discovered at Holtec and U.S. Tool and Die manufacturing processes and the QA program. I'm not talking about the weld that the welder from ComEd came two weeks ago, three weeks ago at Clinton and said we don't have any problem in the welding at the station. I'm not talking about non safety related welds.

I'm talking about the components, safety related components and the weld flaws of the manufacturing and the designers that Exelon does have no control over.

My allegation revealed that Holtec and U.S. Tool and Die QA program were not and still are not in compliance with the Code of Federal regulations and NRC's accepted standards.

Dry casks were and still are built to the same Holtec's QA program which is not in compliance with applicable codes as cited by my repeated audits and Tony Frazier's Quality Controlled inspection.

My repeated audits and Tony Frazier's Quality Control Inspection at U.S. Tool and Die revealed the loss of design change control process for hundreds of nonconforming conditions that were dispositioned by U.S. Tool and Die and Holtec as Us-As-Is and Repair.

If you refer to the codes of Federal Regulation and ASME NQA-1 Supplement 3S where it says that Use-As-Is and Repair is a design change and they were just blessing it off with no design control process.

Hundreds of weld flaws nonconforming conditions were accepted as Use-As-Is and was not subject to the design control process applicable by the codes.

MR. CAMERON: Oscar, I'm going to have to ask you if you could state your conclusions for us at this point and also if you can draw any broad conclusion between what you're saying and license renewal, please feel free to do that.

E-2

MR. SHIRANI: Okay. License renewal is the, the guarantee that NRC has to provide to the public, public safety that since we trust Commonwealth Edison for the last 40 years then we should give them another 20 years.

If you look at my records on the website and all my allegation it tells you that NRC should not rely on Exelon. Exelon has a history of falsification of records.

Exelon cannot be trusted. I have documentation that Exelon officers the ones that I have mentioned falsified records. They should be prosecuted according to the 10-CFR-50.7 and the 10-CFR-50.5. Rules and regulations are there. Who is going to enforce it. I expect NRC to enforce it. But unfortunately there is a flaws in the system.

MR. CAMERON: Okay.

MR. SHIRANI: You could read the rest of my on the record.

MR. CAMERON: Let me note that we have Oscar's entire written statement that will be attached to the transcript of this meeting. And, Oscar, thank you.

MR. SHIRANI: Thank you very much.

MR. CAMERON: Very much. And I would just note what John Tappert said earlier is that there is an NRC investigation of Mr. Shirani's allegations that has not been closed yet.

And there is also an inspector general investigation of how the NRC staff performed that analysis that is ongoing. And so there will be, there are still some things to happen in the future before the NRC can present a clear picture of what its findings are. But thank you, Mr. Shirani.

And now we're going to go to Mr. Corey Conn from the Nuclear Energy Information Service and then to Michael Duerr.

Corey.

Appendix A

MR. CONN: Good afternoon, my name is Corey Conn. I am here representing the Nuclear Energy Information Service out of Evanston, Illinois.

And for the benefit of many of the Exelon employees who are here today and who have begun to hear perhaps for the first time some of the concerns about quality assurance failure at ComEd and at several principal suppliers of casks and engineering services for the first time, I thought I would point out a couple things to you quickly that Mr. Shirini was 10 years at Stone and Webster and 11 years with ComEd and Exelon. He knows where of he speaks.

Just very, you know, when the ASME held its pressure vessel piping conference in July of 2001 Oscar was in fact the man you submitted your papers to for review on issues such as reliability, quality assurance, quality control, inspection, in-service inspection, failure date of regulatory and code compliance, quality testing operability qualification, valves, the design and analysis, the design of internals, pumps, design and analysis, etc., piping dynamic effects, pipe whips, seismic analysis.

He has a very impressive career. He has told me that he had never really wanted to go into quality assurance because he suspected that at his best he would be everybody's enemy. But I contend that at his best he has been everybody's friend.

I am in a moment going to employ, implore the other engineers and current employees of Exelon who have information to come forward because there is a large and growing support network for Mr. Shirani and other whistle blowers at NRC licensees and at DOE facilities and the principal engineering labs as well.

And these people are well motivated. They've come from inside and we would rather have them come out before a large amount of fission products come out of a facility.

So again we're trying to prevent and mitigate serious accidents, all of us are, we believe that.

Mr. Shirani mentioned that using the search terms Oscar and Shirani in Google it does in fact produce a growing number of pages of hits. I just thought I'd point out that the, some of the interested parties are out at the Las Vegas Sun and the Salt Lake City Tribune. You can imagine why.

Public Citizen, the Utme Reader, the engineering folks at the University of Michigan, the U.S. Department of Labor if you'd like to follow this case. And I see that it has been recently translated into Spanish on a website in the Netherlands.

At this time I would like on behalf of NEIS to endorse a December 1, 2003, letter from the Union of Concerned Scientists where they have written to the reactor inspection section chief, Doug Coe, and to the Division of Inspection Program Management, excuse me, to the agency allegations advisor at NRR, Lisa Marie Geriel, with a subject request for public meeting regarding NRC's handling of allegations and as quality assurance inspection process.

I have been following the dialogue between Mr. Shirani and the NRC staff and the OIG and I'm really disappointed in NRC. I say that to you in all honesty I don't think we're playing on the same team any more.

I have wanted to believe that we were but what I will say is that this is really an essential meeting now to determine that NRC understands the fundamental concerns that Mr. Shiarni has raised to find out what in fact the NRC's resolutions are, what they have offered and to remedy any misunderstandings and to enumerate now the unresolved concerns that we have in the safe energy advocate community.

Let me quote from one paragraph from the bottom of page of this letter from the Union of Concerned Scientists who the NRC with respect to NRC's inspections of quality assurance Mr. Shirani's experience auditing areas shortly before or shortly after NRC inspections of the same areas makes him and the Union of Concerned Scientists question the efficacy of NRC's inspections.

The disparate results from nearly simultaneous examinations with NRC's results always being significantly less critical strongly suggests a serious flaw in the NRC inspection regime.

How many folks are familiar with this form, notice to employees, NRC Form 3. Could I ask a show of hands if you've actually seen this before. Okay. Thank you. There are a few folks there who appear to be employees of licensees or have been in workplaces where those are displayed prominently.

F-3

I will say that I point that document out to you because employee, 10-CFR-50.7 on employee protection. What we are seeing is that the, the promise of employee protection is really rather vacant. It's hollow and it is empty and that in cases where whistle blowers have come forward with very valid concerns and have even have won their many sequential cases and appeals and have won that it sometimes unfolds over an entire decade.

The concern that Mr. Shirani has raised however bear directly on an issue called deliberate misconduct of others. In a particular, 50.5 2A deliberately submitting to the NRC information that the person submitting the information knows to be incomplete or inaccurate.

Appendix A

We have on websites some of the very documents that are in question. The documents which as you look at them they're patently untrue. The statements are not consistent within themselves on the same document.

And I invite you to examine the wealth of materials that's out there. It's unfolding now and I have faith that it's going to resolve in favor of truth and in favor of the protection of the public safety and the environment.

And finally I would like to incorporate by reference a letter sent September 15 to Chairman Diaz and Commissioners McGaffigin and Maryfield by a large sign on list.

The document is, contains 15 primary factors which are essentially the basis for a vote of no confidence in the NRC. I see that in the list there are a number of engineers, former employees and a variety of very well qualified individuals. Qualified in that they have had a lot of interaction with NRC over the years.

F-4

The subject, votes of no confidence in Nuclear Regulatory Commission. I'll just highlight one of the 15 for the moment. The safety culture within NRC is deplorable as evidenced by recent surveys that report nearly half of NRC's work force is reluctant to raise safety concerns and a third of those who voice safety concerns feel they have been retaliated against for it. The public cannot trust NRC management when so many workers do not.

I think Mr. Shirani's record speaks for itself. We are working to publicize that record and we want to assure folks who avail themselves of NRC's dispute resolution tools and allegation mechanisms that beyond the NRC there's a wide body of organizations who have some resources and are very eager to help you.

We find in NRC and in NASA if, a disturbing parallel in that it appears there is in the background a number of engineers who raise safety concerns and are ignored or retaliated against for doing so.

F-5

It is our hope that by escalating the tension around whistle blower protection and the importance of it particularly with regard to design control failures by General Electric whose Mark I machine is about to be stretched for another two decades that it's, it's not rational to consider moving to license extension while so much evidence abounds that NRC has not regulated or enforced effectively on safety issues.

Thank you.

MR. CAMERON: Okay. Thank you, Corey. And I think we'll put the September 15th no confidence letter on the transcript as well as there is a reply too from the agency to that that we should also put, attach to the transcript.

And we're going to go to Michael, Michael Duerr.

G-1 | MR. DUERR: Thank you. Well, a lot has been said about the management of this particular reactor so I'm not going to beat a dead horse there. But I think, you know, one good measure of a management team or an installation is its record. And I think we should look at the capacity and utilization of these units and factor that in to our decision of whether this is a good plant and whether it should be renewed.

G-2 | I mean we're talking about a unit in 1997. 54 percent availability. This is, these are not good reactors. Not only is it a dishonest and perhaps inept management team but they have not achieved good results. We're talking about a pair of reactors they've spent more than seven and a half years on NRC's close watch list back when you guys maintained a close watch list.

I think that's very germane to license extension. You know, particularly, I mean when a pressure vessel was new or newer anyway and less embrittled, you know, and when the welds were newer they couldn't get these things to work.

So now, you know, we're going to let the ravages of time continue and we expect better performance. That boggles my mind. I don't see any logical reason that we should assume that.

I also wanted to address the comments that Ben and the other gentlemen from the county made and I think those are very salient points that employment is important and that there are jobs at stake if we close these reactors.

G-3 | I also noted that the, there were I forget your terminology, a medium or large impacts. In going with alternative sources of energy and part of the methodology for determining what those impacts were was cost benefit analysis.

If you stop and decode all that vocabulary what that all comes down to is we have to spend more money and create more jobs for pipe fitters, more jobs for boilermakers, more jobs for welders, more jobs for masons and general contractors. If we used other types of power, if we created more and less centralized and safer plants.

G-4 | So, you know, in view of jobs, you know, Ben [Kosiek], I think you need switch camps here. I think your own interest are best served in shutting down this particular plant.

Appendix A

Thank you.

MR. CAMERON: Okay. Thank you, Michael.

Is there anybody else who wanted to make a comment to us?

All right, pardon me. Okay. Bruce McDowell is just going to add some facts for us here.

MR. McDOWELL: I wanted to make just two comments in response to the previous speaker.

The environmental impact statement does not look at cost benefit analysis when looking at alternatives. We just, our task is to describe what the alternatives are and then to assess what the impacts are of those alternatives.

The environmental impact statement just lays out those environmental impacts. It doesn't try to qualify them at all by, by a cost benefit analysis. That was really all.

MR. CAMERON: Okay. Well, thank you, Bruce, for clarifying that. I think Mr. Duerr's point came through. Regardless.

If there are no other comments I would just thank you all from facilitators perspective for following the guidelines and for your courtesy and your comments. And I would, we have many NRC staff here who will be here after the meeting from various offices if you want to talk to them.

But I always like to introduce our staff that are in the community, our resident inspectors and our senior resident is Desiree Smith. And Mina Sheikh is with us who is a new resident there and I guess Desiree will be with us tonight. All right.
John, do you want say any final words for us?

MR. TAPPERT: I'd just like to thank everyone for coming out again today. I mean this is an important part of our process and just to reiterate what we're doing.

If you have comments on the draft environmental impact statement we're accepting those comments to February 24th and Duke is the principal point of contact.

If you have concerns about safety violations at any nuclear power plant we have an allegations process to follow up on those. And probably your best means of submitting those comments is through our website at the NRC.gov address.

We also have an office of inspector general which investigates assertions of employee misconduct. So if you have concerns about NRC performance that would be your best avenue for that.

So just to put all those difference processes in context. And again thanks for coming out again today.

We have NRC staff that will be staying after the meeting if you have any additional questions. And thanks again.

Transcript of the Evening Public Meeting on January 14, 2004, in Morris, Illinois

[Introduction by Mr. Cameron and Mr. Tappert]

[Presentation by Mr. Eads]

[Presentation by Mr. Wheeler]

[Presentation by Mr. McDowell and Mr. Palla]

[Presentation by Mr. Wheeler]

MR. CAMERON: Thank you, Duke. Where's going to go to Mr. Robert Schwartz from the Boilermakers Union Local to talk to us. Why don't you join, do you want to join us at the podium?

MR. SCHWARTZ: Wherever you would like.

MR. CAMERON: Why don't you come up there. Then everybody can see you.

MR. SCHWARTZ: Thank you. I'm Robert Schwartz. I live at 304 Northbrook Shore Drive in Shorewood, Illinois, which is directly Northeast of the Dresden Nuclear Station, less than 8 miles downwind. I've lived there all my life, my family and friends have lived in the area of Dresden, and we feel that the environmental impacts of Dresden are insignificant. None of my family or any family or friends that I know of have any detrimental sicknesses or maladies from anything that is resulted from Dresden.

H-1
H-2

H-3

I also represent several hundred members who work at Dresden, Braidwood, and the fossil stations in our area, some of them who could not be here tonight, but would like me to convey their thoughts. They do not feel that there is any detrimental environmental effect from the operation of the Dresden Nuclear Station.) They couldn't be here tonight because they are working at a refueling outage at LaSalle. I feel also very confident tonight after listening to the NRC staff give it's thorough report on the effects of the operation of Dresden.

Appendix A

H-4

H-5

I know that I don't worry about it at all when I go to bed at night and I feel a little bit more safer after knowing that they have conducted a very inclusive study of the Dresden Nuclear Station. I'm also a member of the Troy Fire Protection District which is involved in the disaster plans for the station, and they're very thorough and they're very, some things that you have to do, that you hope you never have to use. So, especially based on what I heard here tonight, after the study that they did for the licensing of it, I feel very confident that there will be no adverse effects on the environment or the public safety of the continued operation. And I request that the NRC grant the license renewal for Dresden Nuclear Station.

Thank you.

MR. CAMERON: Okay. Thank you very much, Mr. Schwartz, for those comments. Is there anybody else who would like to talk at this point? We do have a number of NRC staff here, both from our headquarters in Rockville, Maryland, and our regional office right here in Illinois. And they'll be available to talk after the meeting.

And I would like to introduce one staff member, our resident, Senior Resident Inspector, Desiree Smith is with us right here, and our residents are our eyes and ears, so to speak, at the plant. They live in the community. They're at the plant to ensure the NRC regulations are complied with and Desiree is our Senior Resident here at Dresden.

Any other questions or any information that we can provide to any of you at this time? Okay, well thank you for coming out tonight. And I'm going to ask John Tappert to close the meeting for us. John?

MR. TAPPERT: Thanks, Chip. I just want to thank everyone for coming out again tonight and remind you that our comment period does go 'til February 24th, so if you have any additional comments in the future, please forward them to us. And thanks for participating, and drive home safely.

GRUNDY COUNTY BOARD

1370 UNION STREET
MORRIS, ILLINOIS 60450

2004 JAN 30 AM 10: 53

Rules and Directives
Branch
USNRC



PHONE: 815-941-3420

12/10/03
68 FR 68955
①

January 16, 2004

Chief, Rules and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop T-6D 59
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: License Renewal Dresden

Dear Chief, Rules and Directives Branch:

I-1 I would like to express support for renewal of the Dresden Power Plant Nuclear License. We were especially pleased to note that your staff had assessed the SocioEconomic impact that failing to renew the license would have on the County.

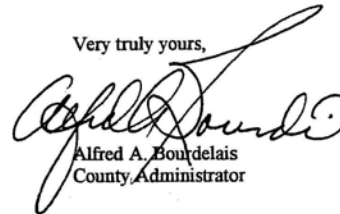
I-2 The Health Issue, while adequately addressed by your staff, is probably a result in part of the fact that Morris Community Health is contracted to provide health care to the Dwight Correctional Facility. This facility is located in an adjacent county and provides incarceration to female inmates from several surrounding counties, including Cook County and the City of Chicago. While these inmates do not reside in Grundy County, nor are they incarcerated in the County, the statistics associated with their health care are attributed to Grundy County.

I believe your staff did an excellent job in the environmental review, and responded well to the questions that were raised. I believe they were quite fair in giving proper credence to those members of the audience who disagree with the renewal of the license.

I was deeply disappointed that several dissenters were not residents of Grundy County, and are therefore not impacted by the facility, nor will they be adversely impacted by the closing of the facility.

I-3 Finally, I have chosen to live within a ten mile radius of both Dresden and Braidwood. I do not personally believe that either of these plants produce a harmful effect on the environment.

Very truly yours,


Alfred A. Bourdelais
County Administrator

Template = ADM-013

E-RIDS = ADM-03
Add = J. Wheeler (JW)



Exelon Generation
4300 Winfield Road
Warrenville, IL 60555

www.exeloncorp.com

10 CFR 51

RS-04-029

February 20, 2004

Chief Rules and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop T-6D59
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Comments Concerning Draft Plant-Specific Supplement 17 to the
Generic Environmental Impact Statement Regarding License
Renewal for Dresden Nuclear Power Station

Reference: Letter from Louis L. Wheeler (USNRC) to John Skolds (Exelon Generation
Company, LLC), "Request for Comments on the Draft Plant-Specific
Supplement 17 to the Generic Environmental Impact Statement Regarding
License Renewal for Dresden Nuclear Power Station," dated December 2,
2003

This letter is being submitted in response to the NRC's request for comments concerning the draft plant-specific Supplement 17 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," regarding the renewal of operating licenses for Dresden Nuclear Power Station, Units 2 and 3, for an additional 20 years of operation.

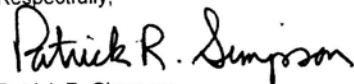
Exelon Generation Company, LLC appreciates the opportunity to comment on draft Supplement 17 to NUREG-1437. We agree that the adverse environmental impacts of license renewal for Dresden Units 2 and 3 are not so great that preserving the option of license renewal for energy-planning decision-makers would be unreasonable.

Specific comments on draft Supplement 17 to NUREG-1437 are provided in Attachment 1 and comments pertaining to Severe Accident Mitigation Alternatives (SAMA) are provided in Attachment 2.

February 20, 2004
U. S. Nuclear Regulatory Commission
Page 2

If you have any questions, please contact Al Fulvio at 610-765-5936.

Respectfully,



Patrick R. Simpson
Manager – Licensing

Attachments:

Attachment 1: Specific Comments on Draft Supplement 17 to NUREG-1437
Attachment 2: Comments Pertaining to SAMA

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station
Illinois Emergency Management Agency – Division of Nuclear Safety

Appendix A

Attachment 1

Specific Comments on Draft Supplement 17 to NUREG-1437

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
1	Pg 1-8/1	... mechanical draft cooling towers and then recycled ...	... mechanical draft cooling towers, cooling canal, and pond and then recycled ...	This wording change is in keeping with the wording used elsewhere in the report.
2	Figure 2-4	This figure should be updated	to show the location of the Extended Power Uprate cooling towers.	
3	Pg 2-9/30-31	An additional cooling six cooling towers cells are currently under construction.	An additional six cell cooling towers is available for operation.	Construction and testing of these additional cooling tower cells has been completed.
4	Pg 2-32/18	... reviewed the applicant=s ER and ...	... reviewed the applicant's ER and ...	Correct spelling.
5	Pg 2-43/33	... canal=s significance ...	... canal's significance ...	Correct spelling.
6	Pg 2-44/40	... Native American tribes has been initiated.	... Native American tribes has been completed.	Wording change needed for final report.
7	Pg 2-45/20	... Joliet Arsenal Project – Midewin Prairie ...	... Joliet Arsenal Project – Midewin National Tall Grass Prairie ...	This wording change includes the full name of the area being discussed in this section.
8	Pg 4-19/22	... Additional cooling towers are scheduled to be added ...	... Additional cooling towers have been added, ...	Construction and testing of these additional cooling tower cells has been completed.
9	Pg 4-43/4 - 5	... The staff is currently consulting with the FWS under provisions of Section 7 of the Endangered Species ...	... The staff has consulted with the FWS under provisions of Section 7 of the Endangered Species ...	Wording change needed for final report.
10	Pg 4-43/7	... The results of that consultation will be incorporated in the final SEIS, ...	... The results of the consultation have been incorporated in the final SEIS, ...	Wording change needed for final report.
11	Pg 4-49/13-14	These lines talk to 'significant cultural resources to be present at the site,' mention Dresden Unit 1 in the context of this classification. It is not entirely clear how Dresden Unit 1 would be considered a significant cultural resource. The decommissioning plan for Unit 1 has already been submitted to the NRC. Part of this decommissioning plan includes the future dismantlement of the facility. The facility, as currently classified, holds a SAFESTOR license.	These lines talk to 'significant cultural resources to be present at the site,' mention Dresden Unit 1 in the context of this classification. It is not entirely clear how Dresden Unit 1 would be considered a significant cultural resource. The decommissioning plan for Unit 1 has already been submitted to the NRC. Part of this decommissioning plan includes the future dismantlement of the facility. The facility, as currently classified, holds a SAFESTOR license.	The wording goes on to mention Dresden Unit 1 and describes how Dresden Unit 1 has already been submitted to the NRC. Part of this decommissioning plan includes the future dismantlement of the facility. The facility, as currently classified, holds a SAFESTOR license.
12	Pg 4-49/14 – 18	The lines listed here pertain to activities that may affect cultural resources and describe that an evaluation of cultural resources be performed in consultation with the Illinois State Historic Preservation Officer prior to performing any ground-disturbing activity. Exelon has committed to contact the State Historic Preservation Officer for guidance on how to proceed prior to disturbing land that has not been previously evaluated for archeological significance by the NRC. This was committed to by Exelon in e-mail under ADAMS Accession #ML033090462.	The lines listed here pertain to activities that may affect cultural resources and describe that an evaluation of cultural resources be performed in consultation with the Illinois State Historic Preservation Officer prior to performing any ground-disturbing activity. Exelon has committed to contact the State Historic Preservation Officer for guidance on how to proceed prior to disturbing land that has not been previously evaluated for archeological significance by the NRC. This was committed to by Exelon in e-mail under ADAMS Accession #ML033090462.	The lines listed here pertain to activities that may affect cultural resources and describe that an evaluation of cultural resources be performed in consultation with the Illinois State Historic Preservation Officer prior to performing any ground-disturbing activity. Exelon has committed to contact the State Historic Preservation Officer for guidance on how to proceed prior to disturbing land that has not been previously evaluated for archeological significance by the NRC. This was committed to by Exelon in e-mail under ADAMS Accession #ML033090462.

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Appendix A

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
13	Pg 4-49/18 – 20	Any plans to decommission Dresden Unit 1 prior to the termination of the OL for Dresden Units 2 and 3, must be preceded by a historic evaluation of Unit 1 and must undergo Section 106 consultation with the IHPA.	This line should be deleted.	The decommissioning plan for Unit 1 has already been submitted to the NRC. It currently holds a SAFESTOR license. With respect to Unit 1, Exelon intends to continue with this decommissioning plan at the end of the operating licenses for Units 2 and 3.
14	Pg 4-49/21 – 22	... On the basis of this preliminary analysis of cultural resources, ...	... On the basis of this analysis of cultural resources, ...	Wording change needed for final report.
15	Pg 8-6/20 – 26	The lines here pertain to Unit 1 decommissioning plan for Unit 1 and evaluations that may be required prior to decommissioning. With respect to Unit 1, Exelon intends to continue with this decommissioning plan at the end of the operating licenses for Units 2 and 3.		The decommissioning plan for Unit 1 has already been submitted to the NRC. It currently holds a SAFESTOR license. With respect to Unit 1, Exelon intends to continue with this decommissioning plan at the end of the operating licenses for Units 2 and 3.
16	Pg 8-43/6	Would use unused portion of Dresden site.	Would use unused portion of the Dresden site, possibly supplemented with neighboring land.	While the Dresden site consists of approximately 2,500 acres, the majority of that site area is comprised of the Dresden Cooling Lake. The DEIS, on pg 2-27, lines 3-6, characterize the undeveloped portions of the Dresden site as supporting old-field, wetlands, and woodland vegetation. As stated in the GEIS and this DEIS, 500 to 1000 acres of land would be needed for the construction of the additional facility. Therefore, it is anticipated that the Dresden site would need to be supplemented with additional land for the purpose of constructing an additional nuclear facility prior to the end of the current OL for Units 2 and 3.

Appendix A

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Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
17	Pg 8-46/15	... nuclear facility.	... nuclear facility, possibly supplemented with neighboring land. ...	While the Dresden site consists of approximately 2,500 acres, the majority of that site area is comprised of the Dresden Cooling Lake. The DEIS, on pg 2-27, lines 3-6, characterize the undeveloped portions of the Dresden site as supporting old-field, wetlands, and woodland vegetation. As stated in the GEIS and this DEIS, 500 to 1000 acres of land would be needed for the construction of the additional facility. Therefore, it is anticipated that the Dresden site would need to be supplemented with additional land for the purpose of constructing an additional nuclear facility prior to the end of the current OL for Units 2 and 3.
18	Pg 8-45/9, Pg 8-49/41, Pg 8-50/11, Pg 9-8	These discussions of aesthetic impacts of the alternative nuclear plant are not consistent with the analysis presented in the GEIS for aesthetic impacts of license renewal for the existing plant. During the construction of the alternate plant on the Dresden site, impacts would be introduced that may bring the overall site to a MODERATE level of impact, however, once the alternate plant is operating and the existing site is fully decommissioned, the overall impacts would not be much different that what currently exists. As stated in the GEIS in the conclusion of the analysis of this issue, the "staff believes that the impacts on aesthetic resources would be small in the future". For this reason, Exelon believes the staff should review their conclusions with respect to their analysis of this issue.	... not compensate for Dresden Units 2 and 3 DOE has a performance target that in 2000 two ...	Correct grammatical uses in the sentence. Correct grammatical uses in the sentence.
19	Pg 8-45/15	... not compensate for Dresden Units 2 and 3 ...	... DOE has a performance target that in 2000 two ...	Correct grammatical uses in the sentence.
20	Pg 8-57/39	... DOE has a performance target that in 2000 two DOE has a performance target that in 2000 two ...	Correct grammatical uses in the sentence.

J-17

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J-20

Appendix A

Attachment 2

Comments Pertaining to SAMA

Comments Pertaining to SAMA

Exelon's Severe Accident Mitigation Alternatives (SAMA) analysis was an extensive exercise that was done to determine if proposed plant changes are required to support license renewal for the Dresden station. Exelon concluded that none are needed to support license renewal and the Nuclear Regulatory Commission (NRC) has agreed (Dresden Draft Environmental Impact Statement (Dresden DEIS) pg 5-9).

Because the current Exelon evaluation of SAMA improvements is performed only to support license renewal, this analysis was done in a conservative manner. Additional analysis is required to ensure that all aspects, both positive and negative, are captured prior to any actual changes in plant equipment, procedures, or training are made. This is consistent with the NRC DEIS review that concludes, "further evaluation of these SAMAs by Exelon is warranted" (Dresden DEIS pg G-30).

Exelon wishes to highlight the following points that were listed in the NRC review:

- a. The cost ranges provided by Exelon are consistent with those provided by other licensees for similar applications (Dresden DEIS pg G-16)
- b. The severe accident analysis typically assumes that the proposed change completely eliminates the associated risk. In reality, no modification made can ever be perfect. Such bounding calculations overestimate the benefit and are conservative (Dresden DEIS pg G-15).
- c. The cost-benefit analysis performed by Exelon did not take into account any replacement power or on-going maintenance costs that may be incurred for any plant modifications. Taking these into account would reduce any risk-cost benefit (Dresden DEIS pg G-16).
- d. Both Exelon and NRC agree that numerous conservatisms exist in the current fire PRA. These conservatisms overstate the actual risk from fire at Dresden (Dresden DEIS pg G-24). The NRC staff reviewers, however, disagreed with a reduction of CDF by a factor of 6 used by Exelon to account for uncertainties in external events analysis for fire based on information provided by Exelon. The NRC suggested a value closer to two to three. It should be pointed out that the existing fire PRA study was performed not to provide detailed estimates of fire risk to be used in routine plant analysis, but was limited to the IPEEE purpose of discovery of major fire vulnerabilities. Furthermore, the NRC has provided no basis for the determination of their suggested value of two to three. If additional consideration by Exelon were performed, it would include a more realistic review of fire impacts. This more realistic review is expected to verify that the reduction of CDF by a factor of 6 used by Exelon is accurate.

J-21

With respect to specific areas of the Dresden DEIS:

- a. On pg G-8, lines 22 – 27, it is stated that the USI A-46 outliers were planned to be resolved or will be completed no later than the end of the Unit 2 refueling outage scheduled for October 2003, except for a Unit 3 modification to some motor control centers, which is currently scheduled for the fall of 2004. Wording should be changed to reflect that the USI A-46 outliers were resolved or completed, except for a Unit 3 modification to some motor control centers, which is currently scheduled for the fall of

J-22

Appendix A

2004. Wording elsewhere through the Dresden DEIS should also be modified to reflect this.

- J-23 b. Spelling of the word 'sue' in Dresden DEIS pg G-29, line 25 should be changed to 'use'.

With respect to the specific recommendations by the NRC:

- J-24 a. For SAMA #3b, regarding an alternate drywell spray water source by using a LPCI cross-tie from the other unit, the NRC has already concluded that there is considerable uncertainty in the likelihood of sump clogging and that the SAMA has a negative net value (Dresden DEIS, page G-26).
- J-25 b. For SAMA #11, the change suggested in the Dresden DEIS would require deviations from NRC-approved emergency operating guidelines. This would be impacted by the change suggested by the Staff as well as causing a significant deviation from the approved Boiling Water Reactor Owners Group (BWROG) strategy.



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904

12/10/03
68 FR 68905
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February 20, 2004

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Michael T. Lesar
Chief, Rules and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

Dear Mr. Lesar:

The U.S. Department of the Interior (Department) has reviewed the Generic Environmental Impact Statement (EIS) for License Renewal of Nuclear Plants, NUREG-1437, Draft Supplement 17 (dated December 2003), regarding Exelon Generation Company, LLC, Dresden Nuclear Power Station, Units 2 and 3, Grundy County, Illinois, and offers the following comments:

GENERAL COMMENTS

The subject license renewal does not involve any major construction, refurbishment, or physical alteration of the project area. The Generic EIS and Draft Supplement 17 adequately address the concerns of the Department regarding fish and wildlife resources. We concur with the preliminary conclusions of the U. S. Nuclear Regulatory Commission (NRC) staff with respect to the impacts of continued operations on these resources. The NRC staff has provided a Biological Assessment to the U. S. Fish and Wildlife Service (FWS), which concluded with a determination that the proposed action is not likely to adversely affect any federally listed threatened or endangered species. The FWS agrees with that determination and will be providing an official concurrence to the NRC under separate cover.

SPECIFIC COMMENTS

Page 2-42, line 31: The floodplain of the Illinois River and its contributing streams, the Des Plaines and the Kankakee, constitute a portion of the landscape that is capable of cultivation without the plow and that is occupied by riparian vegetation and fish and wetland wildlife populations. All predictive models of site location list the floodplain as a prime zone for archeological site location. While the landform and the location within the floodplain have a high potential to yield important archaeological resources, without survey data, it is difficult to

K-1

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K-RIDS = ADM-03
Call = D. Wheeler (xra)

predict the site significance and, thus, potential impacts. Likewise, past/current land disturbances may have jeopardized artifacts to an unknown degree; thus, activity in the flood plain may constitute an ongoing impact that has yet to be evaluated.

Page 2-43 line 16: Please add "Kaskaskia Illinois" Tribe.

K-2 Page 2-44 line 10: Please change to "Briscoe mounds and associated habitation site."

K-3 Page 2-44 line 12: Please correct. One of the mounds was erected around 1350, the other has never been excavated.

K-4 Please continue to include the Illinois and Michigan Canal National Heritage Corridor (NHC) in all related project correspondences. The NHC address is: Executive Director, I & M Canal NHC, 15701 South Independence Boulevard, Lockport, Illinois, 60441. If you have any questions regarding the NHC, please contact Ms. Phyllis Ellin, Executive Director, I&M Canal NHC, at 815-740-2047.

We appreciate the opportunity to provide these comments.

Sincerely,



Michael T. Chezik
Regional Environmental Officer



ENVIRONMENTAL LAW & POLICY CENTER
ILLINOIS INDIANA MICHIGAN MINNESOTA OHIO WISCONSIN

February 24, 2004

**Via E-Mail (DresdenEIS@nrc.gov)
And Federal Express Overnight Delivery**

Chief, Rules and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop T-6D59
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

*RE: Comments on Draft Supplement 17 to the Generic Environmental Impact Statement
for the Dresden Nuclear Power Station Units 2 and 3 License Renewal Application*

Dear Sir or Madam:

These comments are submitted by the Environmental Law and Policy Center ("ELPC") on Draft Supplement 17 to the Generic Environmental Impact Statement for the Dresden Nuclear Power Station license renewal application ("Draft Supplement"). The NRC's analysis in the Draft Supplement fails to comply with the requirements of the National Environmental Policy Act ("NEPA"). First, the Draft Supplement fails to contain an analysis of whether or not there is a need for the power created by Dresden. Second, the NRC has not complied with its legal duty to objectively evaluate energy efficiency, renewable energy resources, and other clean energy resources, both individually and in combination, as viable alternatives to the renewal of the Dresden operating license.

L-1

I. NEPA Requires That the NRC Thoroughly Analyze the Need for Power

The environmental analysis of the Dresden license renewal application is carried out pursuant to NRC regulations that violate NEPA by improperly constraining its scope. In particular, 10 C.F.R. 51.95(c) provides that the NRC need not consider "the need for power" in determining whether or not to grant a license renewal for Dresden. The need for power, however, is at the heart of the purpose and need statement which, in turn, serves as the baseline by which the reasonableness of various alternatives are measured. Without this essential factor,

L-2

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ROBERT L. GRAHAM - CHAIRPERSON HOWARD A. LEARNER - EXECUTIVE DIRECTOR

there is no way for the NRC to use the EIS process to accurately weigh alternatives against one another or to conclude whether it is appropriate to allow Dresden to continue operating for an additional 20 years. While the NRC suggests that state governments can consider the need for power at some later date, it clearly violates NEPA to abdicate the analysis of the “need for power” issue to non-federal decisionmakers long after the EIS process has been concluded.

II. The NRC Has Failed To Rigorously Explore And Objectively Evaluate All Reasonable Alternatives As Required By NEPA

L-3 The Draft Supplement fails to “rigorously explore and objectively evaluate all reasonable alternatives” to renewing the Dresden license, as required by NEPA. 40 C.F.R. 1502.14(a). In particular, the Draft Supplement erroneously rejects energy efficiency and renewable energy resources as not feasible from an economic, technological, and/or environmental standpoint. The analysis of these alternatives in the Draft Supplement is unsupported and it relies on flawed and outdated information. As explained below, energy efficiency, renewable energy sources, and clean distributed generation, alone or in combination with “clean coal” resources, present a better, lower-cost, safer, and environmentally preferable approach to meeting energy needs than renewing the license for the aging Dresden nuclear power plant.

A. Energy Efficiency Alternatives Are Better, Available, Cost-Effective, Safer, and Environmentally Preferable

L-4 The Draft Supplement concludes, with no factual support, that it would not be economically feasible for energy efficiency efforts to replace the power generation that would be lost if the Dresden license renewal was denied. (Draft Supplement Section 8.2.5.11, p. 8-58). The Draft Supplement cites an outdated 1992 study suggesting that energy efficiency improvements cost 4 cents for every kilowatt-hour saved. The Draft Supplement then rejects even this old cost estimate by arguing that: (1) if energy efficiency were really that cost-effective, then it would have already occurred, and (2) replacing the energy produced by Dresden would require such a large-scale energy efficiency effort that the cost of energy efficiency would increase well beyond 4 cents. The Draft Supplement, however, provides no support for these contentions and does not even attempt to estimate today’s cost of using energy efficiency to replace the power produced by Dresden.

L-5 In contrast to the unsupported analysis provided in the Draft Supplement, recent studies demonstrate that energy efficiency is an even more viable and cost-effective alternative. For example, the 2001 *Repowering the Midwest* study,¹ which is a comprehensive clean energy development analyses conducted on the Midwest’s energy sector, demonstrated that energy efficiency efforts can significantly reduce the demand for power at a cost of 2.5 cents per kilowatt-hour or less – lower than the cost of generation, transmission, and distribution of electricity from power plants. Implementing modern new cost-effective energy efficiency

¹ Environmental Law and Policy Center, et al., *Repowering the Midwest: The Clean Energy Development Plan for the Heartland* (2001).

technologies like commercial and residential lighting, heating, ventilation and cooling, industrial motors, refrigerators, and other appliances, will flatten our electricity demand over the next two decades. *Repowering the Midwest* relied on the methodology of the U.S. Department of Energy's 1997 "Five National Labs" Study, which is an analysis by a working group with members from five national energy laboratories,² in concluding that:

- Energy efficiency efforts can reduce electricity demand by 16% in 2010 and 28% in 2020 vs. a projected base case scenario.
- Energy efficiency efforts can save 50,761 GWh of electricity annually by 2020 in Illinois alone.
- Energy efficiency efforts would be highly cost-effective, requiring an average investment equivalent to only 2.5 cents per kilowatt-hour.
- Energy efficiency efforts would reduce net electricity costs in Illinois by \$1 billion by 2020.
- These energy efficiency initiatives use "off the shelf" technologies and equipment that is widely available today.

Other analyses have reached similar conclusions on the availability and cost-effectiveness of energy efficiency. For example, an Interlaboratory Working Group following up on the Five National Labs study concluded that adoption of a number of policies directed at promoting energy-efficient technologies could reduce projected energy needs in 2020 by 20%.³ The Interlaboratory Working Group determined that these energy efficiency efforts could save an amount of energy equal to 25% of the nation's current energy use.⁴ The American Council for an Energy Efficient Economy ("ACEEE") found even greater potential for energy efficiency, concluding in a 2001 study that nine specific energy efficiency policies could reduce energy consumption by 11% by 2010 and 26% by 2020.⁵ The net economic savings as a result of these efficiency efforts would be \$170 billion through 2010 and more than \$600 billion through 2020.⁶ The ACEEE also determined that efficiency standards for 13 appliances and equipment alone could save 1.8 quads of energy, or 5% of projected residential and commercial sector energy use.⁷ The benefit-to-cost ratio of such standards would be 5 to 1.⁸ Finally, the Union of Concerned Scientists and the Tellus Institute determined in their Clean Energy Blueprint that

² U.S. Department of Energy, *U.S. Carbon Reductions: Potential Impacts of Energy Technologies by 2010 and Beyond* (1997).

³ Interlaboratory Working Group, *Scenarios for a Clean Energy Future* (Nov. 2000), p. ES.6.

⁴ *Id.*

⁵ Steven Nadel and Howard Geller, *Smart Energy Policies: Saving Money and Reducing Pollutant Emissions Through Greater Energy Efficiency* (Sept. 2001), p. vii.

⁶ *Id.* at i.

⁷ Toru Kubo, *Opportunities for New Appliance and Equipment Efficiency Standards: Energy and Economic Savings Beyond Current Standards Programs* (Sept. 2001), p. ii.

⁸ *Id.*

energy efficiency efforts throughout the U.S. could save 915 billion kilowatt-hours of electricity by 2010 and 2,512 billion kilowatt-hours by 2020.⁹

L-6

Energy efficiency efforts are feasible, and they also provide significant economic benefits. A follow-up analysis of the economic impact of the recommendations in *Repowering the Midwest* concluded that investments in energy efficiency in Illinois would create 43,400 new jobs and \$4.6 billion in additional economic output by 2020.¹⁰ A 1998 ACEEE study of energy efficiency potential in Illinois reached similar results, concluding that investments in energy efficiency would create 59,400 jobs by 2015 and save consumers and business \$76 billion in energy costs between 1999 and 2015.¹¹ Clearly, energy efficiency is a technologically and economically feasible alternative to the renewal of the Dresden operating license.

Perhaps realizing that energy efficiency alternatives cannot be rejected on their merits, the Draft Supplement also asserts that energy efficiency is not viable because utility deregulation has removed the incentive for Exelon to invest in energy efficiency. (Draft Supplement, Section 8.2.5.11, p.8-59). Energy efficiency, however, is a better, cheaper, more distributed and less environmentally destructive alternative. Exelon and its subsidiaries Exelon Generation and Commonwealth Edison should consider investments in energy efficiency to meet Illinois' power needs. Or, there can be other market-oriented and/or public investment strategies in energy efficiency.

L-7

Whether Exelon and its subsidiaries choose to invest in energy efficiency, or not, that does not remove the NRC's legal obligation under NEPA to "rigorously explore and objectively evaluate all reasonable alternatives," including energy efficiency and renewable energy alternatives, to renewing the Dresden license. 40 C.F.R. 1502.14(a). The point made in the Draft Supplement is legally flawed – an otherwise reasonable alternative cannot be rejected under NEPA simply because an applicant may not want to or cannot carry it out. Cf. 42 C.F.R. 1502.14(c) (agency cannot reject an alternative simply because it is outside the agency's jurisdiction); *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 814 (9th Cir. 1999) (same). Instead, the NRC has the legal authority to tell Exelon a better, cheaper, available and environmentally preferable alternative to license renewal must be considered. The fact that energy efficiency efforts are more likely to materialize as a result of state or federal government initiatives, other public investments and market-based policies and rate structures does not provide a basis for rejecting the economically, technologically, and environmentally feasible alternative of energy efficiency.

B. Wind Power is a Viable and Growing Source of Clean Renewable Energy

The Draft Supplement's analysis of the feasibility of wind power is also flawed. The Draft Supplement notes that the wind resources in Illinois are sufficient to replace the power

L-8

⁹ Steve Clemmer, et al., *Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future* (Oct. 2001), at 11.

¹⁰ Environmental Law and Policy Center, et al., *Job Jolt: The Economic Impacts of Repowering the Midwest* (2002), p. 7.

¹¹ Marshall Goldberg, et al., *Energy Efficiency and Economic Development in Illinois* (Dec. 1998).

currently generated by Dresden. Illinois has a capacity of at least 3000 MW of Class 4 wind sites and 6000 MW of Class 3+ wind sites.¹² (Draft Supplement Section 8.2.5.2, p. 8-53). The Draft Supplement then rejects this alternative for two reasons. First, harnessing this wind power would purportedly be a massive undertaking involving nearly a doubling of current wind generation in the U.S. Second, such extensive development of wind power would result in significant land impacts for the construction of turbines and transmission lines. (Draft Supplement Section 8.2.5.2, p. 8-54).

The Draft Supplement erroneously rejects wind power, which is a viable alternative alone and in combination with energy efficiency and other clean energy alternatives:

L-9 First, over time, this would not be a “doubling” of wind generation in the U.S. Technological advancements, as described below, and economic advantages have led to a substantial increase in the amount of wind power installed – from 2001 through 2003 a total of 3,795 megawatts of wind energy was installed nationwide, raising the total wind energy in the U.S. to 6,374 megawatts.¹³ Within Illinois, the first utility-scale wind project has recently begun operations and approximately 1,700 MW of additional wind projects are in various stages of development. Across the border in Iowa, there are 420 MW of wind generation installed with an additional 345 MW in development.

Second, the Draft Supplement treats wind power and energy efficiency as if both would have to replace Dresden’s power on their own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R. 1502.14(a).

L-10 Third, technological advancements are increasing the amount of power created by wind turbines. While the Draft Supplement claims that the largest commercially available wind turbines are between 1 MW and 1.5 MW, GE Wind Energy’s own website advertises 2.3 – 2.7 MW land based turbines, and 3.6 MW turbines designed for offshore use.¹⁴ 5 MW wind turbines may be available in the near future.¹⁵ In addition, wind turbines have an availability factor of 98%, higher than most other power sources.¹⁶

L-11 Fourth, the cost of wind power has fallen dramatically since the 1980s, with an average generation cost of three to six cents per kilowatt-hour,¹⁷ so that it is now competitive with most other energy sources. In addition, wind power generation has “zero fuel cost” and thus avoids any risk of fluctuating fuel prices.

¹² U.S. Department of Energy – Wind Powering America, *Illinois Wind Resource Maps*, www.eere.energy.gov/windpoweringamerica/where_is_wind_illinois.html.

¹³ American Wind Energy Association, *Wind Power Outlook 2003* (2003); American Wind Energy Association, *Wind Energy Fast Facts* (Jan. 2004).

¹⁴ GE Wind Energy, *Our Products*, http://www.gepower.com/businesses/ge_wind_energy/en/products.htm

¹⁵ Ari Reeves, *Wind Energy For Electric Power: A REPP Issue Brief* (Nov. 2003), at 22.

¹⁶ American Wind Energy Association, *The Most Frequently Asked Questions About Wind Energy* (2002), p. 5.

¹⁷ American Wind Energy Association, “Wind Energy’s Costs Hit New Low,” press release, March 6, 2001, <http://www.awea.org/news/news010306cew.html>.

Fifth, the Draft Supplement improperly limits its analysis to wind resources in Illinois. Six of the 10 states with the highest wind power potential in the U.S. are in the Midwest.¹⁸ Wind farms in neighboring states such as Iowa could be a viable source of energy for Illinois.

In light of these facts, the NRC's concerns regarding the need for substantial growth in the wind industry in order for wind to be a viable alternative are misplaced, especially given that the current operating license for Dresden does not expire for a number of years.

L-12 The Draft Supplement also overestimates the impact that an expansion of wind power would have. Nearly 95% of the land devoted to a wind power site remains available for other uses such as agriculture. Most new wind facilities would also be located near existing transmission lines. Therefore, the land impacts of new wind power would not be significant. In addition, wind generation uses no coolant water, has no emissions and does not degrade land. There are very few avian collisions with modern wind turbines.¹⁹

C. The Draft Supplement Misstates the Impacts of Solar Power

L-13 The conclusion in the Draft Supplement that Illinois would need a 46-square-mile area of photovoltaic ("PV") cells to replace the power produced by Dresden (Draft Supplement Section 8.2.5.3, p. 8-54) provides a distorted view of the impacts that solar power would have. In particular, the Draft Supplement's suggestion that solar power would have a substantial impact to natural resources and land use ignores the fact that solar power is distributed power. Most solar power units are located on rooftops of buildings, meaning that solar power would not cause land disturbance. In addition, it is important to note that solar PV technology has advanced to the point where PVs are a good source of power, especially in remote areas and to help meet peak power demand. The average solar PV cell has a conversion rate of 12% to 17%, not the 10% assumed in the Draft Supplement.

Again, the Draft Supplement treats solar power, wind power and energy efficiency as if each would have to replace Dresden's power on its own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R. 1502.14(a).

D. Distributed Generation Is a Clean Alternative for Providing Baseload Power

L-14 The Draft Supplement does not adequately address the opportunities for meeting baseload power needs through efficient on-site natural gas-fired generation, such as Combined Heat and Power ("CHP"), district energy systems, and fuel cells. Such natural gas distributed generation emits substantially less air pollution than coal-fired power plants, and does not pose the high-level waste and safety hazards inherent to nuclear power, and therefore could serve as a cleaner and safer baseload supplement to energy efficiency and renewable energy alternatives.

L-15 ¹⁸ American Wind Energy Association, Wind Energy: An Untapped Resource (2003).

¹⁹ National Wind Coordinating Committee, Avian/Wind Turbine Interaction: A Short Summary of Research Results and Remaining Questions (Dec. 2002).

Repowering the Midwest estimates that Illinois alone has the potential for 2,162 MW of efficient distributed gas-fired generation by 2010, and 5,000 MW by 2020.²⁰

L-16 Again, the Draft Supplement treats this distributed generation, solar power, wind power and energy efficiency as if each would have to replace Dresden's power on its own. Instead, they should be considered in combination as part of the NEPA-required rigorous exploration and objective evaluation of all reasonable alternatives. 40 C.F.R. 1502.14(a).

* * *

For the above reasons, the NRC should complete a rigorous and objective analysis of the need for power and reasonable alternatives such as energy efficiency, renewable energy resources, clean distributed generation, and "clean coal" resources before deciding whether or not to relicense the aging Dresden nuclear power plant. 40 C.F.R. 1502.14(a).

L-17 Thank you for the opportunity to comment on the Draft Supplement EIS for the Dresden license renewal application.

Sincerely,

Shannon Fisk
One of the Attorneys on behalf of the
Environmental Law and Policy Center

²⁰ *Repowering the Midwest*, at p. 83.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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Rules and Directives
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Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

Re: Generic Environmental Impact Statement for License Renewal of Nuclear Plant,
Supplement 17: Dresden Nuclear Power Station, Units 2 and 3, Draft Report,
NUREG-1437, EIS No. 030549

Dear Sir or Madam:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the Generic Environmental Impact Statement for License Renewal of Nuclear Plant, Supplement 17: Dresden Nuclear Power Station, Units 2 and 3 (Dresden Units 2 and 3), which is a draft report. The Nuclear Regulatory Commission (NRC) developed the Generic Environmental Impact Statement (GEIS) to streamline the license renewal process on the premise that environmental impacts of most nuclear power plant license renewals are similar, in most cases. NRC develops facility-specific supplemental environmental impact statements (SEIS) for individual plants as the facilities apply for license renewal. EPA provided comments on the GEIS during its development process—for the draft version in 1992, and for the final version in 1996.

The Dresden Nuclear Plant is located on the banks of the Illinois River (at the confluence of the Des Plaines and Kankakee Rivers) in Grundy County, Illinois. The plant has three units. Dresden Units 2 and 3 are operating nuclear reactors and the subject of the proposed Federal action. The other unit (Dresden Unit 1) was shut down in 1978 and decontaminated in 1984. Dresden Units 2 and 3 each produces an output of 2957 megawatts thermal, and each unit has a design rating for a net electrical power output of 912 megawatts. Each unit is refueled on a 24-month cycle; this is done by refueling an alternate unit each year. The cooling system can operate in one of two modes. In the indirect open-cycle mode, once-through cooling water from the Kankakee River is used to remove heat from the main (turbine) condensers. The heated effluent is circulated through a cooling canal and pond and discharged to the Illinois River. In the closed-cycle mode, heated effluent is circulated through mechanical draft cooling towers, then recycled through the condensers with limited make-up water drawn from the Kankakee River.

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The proposed Federal action is renewal of the operating licenses for Dresden Units 2 and 3. The Exelon Generation Company, LLC has submitted a permit application to the NRC to extend the operating license for Dresden Units 2 and 3 for an additional 20 years. Currently, the operating licenses for Dresden Units 2 and 3 expire on December 22, 2009 and January 12, 2011, respectively.

Based on our review of the Dresden draft SEIS, we have given the project an EC-2 rating. The "EC" means that we have environmental concerns with the proposed action, and the "2" means that additional information needs to be provided in the final SEIS. Our concerns relate to:

1. Information provided on radiological impacts,
2. Cooling water system impacts on aquatic organisms,
3. Thermal impacts,
4. Adequacy and clarity of the information provided,
5. Risk estimates, and
6. On-site waste storage.

- We have enclosed our comments and the U.S. EPA rating system summary.

If you have any questions or wish to discuss any aspect of the comments, please contact Newton Ellens of my staff at (312) 353-5562.

Sincerely,



Kenneth A. Westlake, Chief
Environmental Planning and Evaluation Branch
Office of Strategic Environmental Analysis

Enclosures

**U.S. EPA Comments on
Generic Environmental Impact Statement for License Renewal of Nuclear Plant,
Supplement 17: Dresden Nuclear Power Station, Units 2 and 3, Draft Report,
NUREG-1437**

- M-1
1. We are concerned about the level of information provided in the draft supplemental environmental impact statement (SEIS) on radiological impacts. According to the SEIS, Exelon Generation Company, LLC (Exelon), the applicant for the operating licenses, has conducted a radiological environmental monitoring program (REMP) around the Dresden Nuclear Power Plant since 1974. Through this program, Exelon has monitored and documented radiological impacts to workers, the public, and the environment. The draft SEIS states:

The REMP includes monitoring of the waterborne environment (ground/well, drinking water, surface water, sediments and dredging spoils), ingestion pathways (milk, fish and vegetation), direct radiation (gamma dose at thermoluminescent dosimeter [TLD] locations), and atmospheric environment (airborne radioiodine, particulates, gross beta, and gamma)...

The SEIS cites two annual reports which summarize information from the REMP, but it does not contain this summary information itself. Summary information about radiation from the Dresden plant and associated exposure pathways in the environment is relevant in determining radiological impacts from the continued operation of Dresden Units 2 and 3. We are unable to make such a determination from the SEIS as it is written. Therefore, we suggest that the final SEIS include current annual summary information about radiological impacts from the REMP.

2. We are concerned about the amount of organisms pinned against or drawn into Dresden's cooling water systems. Under a final rule signed by U.S. EPA on February 16, 2004, certain power plants with cooling water systems are required to (1) reduce the number of organisms pinned against water intake screens by 80 to 95 percent, and (2) reduce the number of organisms which are sucked into the cooling water system by 60 to 90 percent. Since the draft SEIS was written before the final rule was signed, the draft SEIS couldn't address how the Dresden plant will comply with this new regulation. However, the final SEIS should indicate the applicability of the final rule to the Dresden plant, and the modifications planned by the applicant to comply with the rule.
3. We are concerned about effluents from the Dresden plant which exceeded National Pollutant Discharge Elimination System (NPDES) permit limits on temperature. According to the draft SEIS, Exelon received one provisional variance from permit limits in 2001 and two provisional variances in 1999. The draft SEIS states that the two 1999 provisional variances were the result of an extended heat wave and drought. Exelon conducted biological studies to determine the impact of the provisional variances on fish and other aquatic life. The draft

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SEIS states that there were no adverse impacts on these organisms; the only effect was a change in fish distribution during the higher temperature periods. Based on this information, the draft SEIS characterizes the thermal impacts caused by the provisional variances as SMALL. However, we think that the draft SEIS does not adequately discuss the potential for future exceedances of NPDES temperature limits, and the impacts of these exceedances. Also, the draft SEIS does not evaluate the possible cumulative impact of future temperature exceedances combined with future droughts and/or heat waves. The final SEIS should discuss these issues.

4. Section 2.2.4, *Air Quality*, page 2-24, second paragraph. The last sentence has a temperature listed as "B11°C" instead of -11°C. This needs to be corrected to reduce the possibility of confusion.
- M-4 5. Section 2.2.7, *Radiological Impacts*, page 2-31, last paragraph. The references to the environmental standards need to be complete citations, including title of the rule or regulation, along with the basic standard for comparison. This will reduce the time needed to look up these citations and verify values that are cited in the text.
- M-5 6. Section 3.0 *Environmental Impacts of Refurbishment*, page 3-2, Table 3-1. Under the section on Human Health, specific information supporting any assertions that this area "needs no further evaluation" needs to be presented or more completely cited and described.
7. Section 4.3, *Radiological Impacts of Normal Operations*, page 4-25, paragraph 5. The specific values for exposure need to be provided in addition to the complete citation of the location of this information. This will help to provide the information more clearly than a citation only, that then must be referred to allow verification of the standard being cited.
- M-6 8. Section 4.8.3, *Cumulative Radiological Impacts*, page 4-48, Paragraph 1. Information or procedures used to generate values to support the assertions in this section need to be provided in a clearer manner to reduce the possibility of misunderstandings and to make explicit the reasoning on procedures to reach these conclusions.
- M-7 9. Section 5.2.2, *Estimate of Risk*: Page 5-5 states "The baseline core damage frequency (CDF) for Dresden is approximately 1.9×10^{-4} per year, based on internally-initiated events. Exelon did not include the contribution to CDF from external events in these estimates even though the risk from external events is significantly higher for Dresden than risk from internal events."
- M-8 We recommend evaluating and presenting risk estimates from both internal and external events. In addition, given the draft SEIS statements referenced above, effects of external events should be included in the risk decision considerations, as necessary, to get an accurate portrayal of the risk of the licensing renewal. If the final SEIS does not incorporate external

events into risk calculations or risk decisions, it should provide a rationale for using internally-initiated events only.

M-10 10. Section 6.1, *The Uranium Fuel Cycle*, page 6-2. Under the bullet point for Off-site radiological impacts (individual effects from other than disposal of spent fuel and high level waste), no consideration appears to be given to the potential long-term storage of the spent fuel and high-level waste materials on-site until such time as a permanent facility is finally licensed and begins to accept these materials for disposal. A reference to other sections or documents where this evaluation may have been included should be provided here; otherwise, the issue needs to be considered and evaluated.

11. Section 6.1, *The Uranium Fuel Cycle*, page 6-8 Under the bullet point for On-Site Spent Fuel. A more thorough evaluation for the volume of spent fuel expected to be generated during the additional licensed time needs to be provided along with more specific information as to site-specific circumstances that may impair or improve the risk values for potential exposures to this spent fuel.

M-11 12. Section 7.1, *Decommissioning*, page 7-2, Under bullet point Radiation Doses. As the GEIS is based on a forty-year licensing period, an extension of another twenty years would have an impact that needs to be quantified and reported. This information should be included specifically in the final SEIS as part of the risk that would be associated with the license extension.

M-12 13. Section 8.1, *No-Action Alternative*, page 8-4, under the bullet point Human Health. The actual value representing the cited percent value should be specifically provided in addition to the citation. This will help to reduce unnecessary additional research, except for value verifications, and potential misunderstandings or confusion as to the actual value(s) being specified.

14. Section 8.2.1.1, *Closed-Cycle Cooling System*, page 8-21, under the bullet Uranium and thorium. A better comparison or quantification of the relative concentrations of the uranium and thorium to the background levels need to be provided: As is, this presentation can lead to misunderstanding and confusion.

M-13 15. Section 8.2.1.1, *Closed-Cycle Cooling System*, page 8-22, Under bullet point Human Health. Any dose estimate that would have the potential to fall in the range of 10^{-4} to 10^{-4} or greater needs to be specifically evaluated for potential regulatory requirements or risk impacts to the public health. This should be estimated conservatively using the data that is currently available or that can be logically extrapolated from currently available information.

M-14 16. Section 8.2.3.1, *Closed -Cycle Cooling System*, page 8-48, Under bullet point Waste. Waste impacts need to be specified rather than merely referenced to provide a clearer

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understanding of the risk determination made in this section of the document.

17. Section 8.2.3.1, *Closed -Cycle Cooling System*, page 8-48, Under bullet point Human Health. Human-health impacts need to be specified rather than merely referenced to provide a clearer understanding of the risk determination in this section of the document.
- M-17 18. Appendix D, *Organizations Contacted*, page D-1,D-2. The United States Environmental Protection Agency was not contacted as one on the cognizant environmental agencies. Please provide the rationale for this procedure.

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A.4 References

MidAmerican Energy (MidAmerican). 2004. "Comments Concerning Draft Plant-Specific Supplement 16 to the Generic Environmental Impact Statement Regarding License Renewal for Quad Cities Nuclear Power Station." Letter from C.H. Montgomery, MidAmerican, to the NRC, January 27, 2004.

Appendix B

Contributors to the Supplement

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Contributors to the Supplement

The overall responsibility for the preparation of this supplement was assigned to the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission (NRC). The statement was prepared by members of the Office of Nuclear Reactor Regulation, with assistance from other NRC organizations and the Lawrence Livermore National Laboratory. Representatives from Argonne National Laboratory, Los Alamos National Laboratory, Pacific Northwest National Laboratory, Energy Research Incorporated, and the Information Systems Laboratory also participated in this review.

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Appendix B

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