

**Environmental Impact Statement  
Scoping Process**

**Summary Report**

**Exelon Generation Company, LLC  
Early Site Permit**

**July 2004**



**U.S. Nuclear Regulatory Commission  
Rockville Maryland**

## Introduction

On September 25, 2003, the U.S. Nuclear Regulatory Commission (NRC) received an application from Exelon Generation Company, LLC (Exelon) for an early site permit (ESP) at a location identified as the Exelon Generation Company (EGC) ESP site, that is adjacent to the Clinton Power Station. The site is located near the town of Clinton, Illinois, in DeWitt County. An ESP is an approval of a location for the siting of one or more nuclear power facilities, separate from the filing of an application for a construction permit or combined license for such a facility. An ESP application may refer to a reactor's (or reactors') characteristics rather than a detailed reactor design.

As part of the application, Exelon submitted an environmental report (ER) prepared in accordance with the requirements of 10 CFR Part 51 (*Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions*) and 10 CFR Part 52 (*Early Site Permits, Standard Design Certifications, and Combined Licenses for Nuclear Power Plants*). 10 CFR Part 51, Subpart A, contains the NRC requirements for implementing the National Environmental Policy Act (NEPA) of 1969, as amended, and the implementing regulations promulgated by the Council on Environmental Quality (CEQ). 10 CFR Part 52, Subpart A, contains NRC regulations related to ESPs. The ER must focus on the environmental effects that would be created by construction and operation of a reactor, or reactors, which have characteristics that fall within the postulated site parameters. It must also include an evaluation of alternative sites to determine if there is an obviously superior alternative to the proposed site. The NRC staff is preparing an environmental impact statement (EIS) that will include an evaluation of the environmental impacts of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. While the proposed action is the approval of the Exelon ESP site for one or more nuclear facilities, the Commission has determined, as set forth in 10 CR 52.18, that the EIS will focus on the construction and operation of a reactor or reactors which have characteristics that fall within the postulated site parameters.

In addition, if an ESP application contains a site redress plan, the permit holder may perform certain activities described in 10 CFR 50.10(e)(1) (Domestic Licensing of Production and Utilization Facilities) without further authorization if the NRC staff concludes in its EIS that there is reasonable assurance that the activities would not result in any significant environmental impact that cannot be redressed. The impacts of the activities described in 10 CFR 50.10(e) for the Exelon ESP site are addressed in the Exelon ESP application, and will be considered during the staff's review.

In accordance with 10 CFR Part 52, an applicant for an ESP need not provide an analysis of the need for power or the economic costs and economic benefits of the proposed action. Additionally, the Commission determined that the ER need not discuss any aspect of storage of spent fuel in reactor facility storage pools or independent spent fuel storage installations. This determination was based on the Nuclear Waste Policy Act of 1982 and the Commission's Waste Confidence Decision, as codified in 10 CFR 51.23. Finally, the Commission has determined that an application for an ESP need not address alternative energy options. This determination is documented in a June 2, 2003, letter from NRC to Exelon (ADAMS Accession Number ML031480409), and in proposed changes to 10 CFR Part 52 published in the Federal Register on July 3, 2003 (68 FR 40025).

The staff is conducting its review of the Exelon ESP application in accordance with review standard RS-002, *Processing Applications for Early Site Permits*. The review standard draws from the previously published NUREG-0800, *Standard Review Plans for the Review of Safety Analysis for Nuclear Power Plants*, and NUREG-1555, *Standard Review Plans for Environmental Reviews for Nuclear Power Plants*.

On November 25, 2003, the NRC published a Notice of Intent in the *Federal Register* (68 FR 66130), to notify the public of the staff's intention to prepare an EIS to support the ESP application for the Exelon ESP site. The EIS will be prepared in accordance with NEPA, CEQ guidelines, and 10 CFR Parts 51 and 52. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the *Federal Register* notice. The NRC invited the applicant; Federal, Tribal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meeting and/or submitting written suggestions and comments no later than January 9, 2004. The public scoping meeting was held at the Vespasian Warner Public Library, Clinton, Illinois, on December 18, 2003. The NRC announced the meeting in local newspapers: *The Clinton Daily Journal* (Clinton, Illinois), *The Pantagraph* (Bloomington, Illinois), *The Herald and Review* (Decatur, Illinois), *The News Gazette* (Champaign, Illinois), as well as issuing press releases and distributing flyers locally. Approximately 100 members of the public attended the meeting. This session began with NRC staff members providing a brief overview of the ESP and NEPA processes. Following the NRC's prepared statements, the meeting was open for public comments. Thirty-seven (37) attendees provided either oral comments or written statements that were recorded and transcribed by a certified court reporter. The transcript of the meeting can be found as an attachment to the meeting summary, which was issued on January 21, 2004. The meeting summary is available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS) under accession number ML040330445. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

The scoping process provides an opportunity for public participation to identify issues to be addressed in the EIS and highlight public concerns and issues. The Notice of Intent identified the following objectives of the scoping process:

- define the proposed action that is to be the subject of the EIS,
- determine the scope of the EIS and identify pertinent issues to be analyzed in depth,
- identify and eliminate from detailed study those issues that are peripheral or that are not significant,
- identify any environmental assessments and other EISs that are being prepared or will be prepared that are related to, but not part of the scope of, the EIS being considered,
- identify other environmental review and consultation requirements related to the proposed action,
- indicate the relationship between the timing of the preparation of the environmental analyses and the Commission's tentative planning and decision-making schedule,

- identify any cooperating agencies and, as appropriate, allocate assignments for preparation and schedules for completing the EIS to the NRC and any cooperating agencies,
- describe how the EIS will be prepared, and include any contractor assistance to be used.

At the conclusion of the scoping period, the NRC staff and its contractor reviewed the transcripts and all written material received and identified individual comments. Twelve letters and nine e-mails containing comments were received during the scoping period. All comments and suggestions received orally during the scoping meeting or in writing were considered. Each set of comments from a given commenter was given a unique alpha identifier (commenter ID letter), allowing each set of comments from a commenter to be traced back to the transcript, letter, or e-mail in which the comments were submitted.

Table 1 identifies the individuals providing comments and the Commenter ID letter associated with each person's set(s) of comments. The Commenter ID letter is preceded by EGCEP-S (short for Exelon Generation Company Early Site Permit scoping). For oral comments, the individuals are generally listed in the order in which they spoke at the public meeting. Accession numbers indicate the location of the written comments in the ADAMS.

Comments were consolidated and categorized according to the topic within the proposed EIS or according to the general topic if outside the scope of the EIS. Comments with similar specific objectives were combined to capture the common essential issues that had been raised in the source comments. Once comments were grouped according to subject area, the staff and contractor determined the appropriate action for the comment. The staff made a determination that each comment was one of the following:

- a comment that was actually a question and introduces no pertinent information,
- a comment that was either related to support or opposition of early site permitting in general (or specifically, the Exelon ESP) or that makes a general statement about the ESP process. In addition, it provides no pertinent information and does not pertain to 10 CFR Part 52,
- a comment about an environmental issue that
  - provided pertinent information that will require evaluation during the review, or
  - provided no pertinent information,
- a comment outside the scope of the ESP, which includes but is not limited to
  - a comment regarding the need for, or cost of, power
  - a comment on the safety of the existing units.

Each comment is summarized in the following pages. For reference, the unique identifier for each comment (Commenter ID letter listed in Table 1 plus the comment number) is provided. In those cases where no new information was provided by the commenter, no further evaluation will be performed.

The preparation of the EIS will take into account all the relevant issues raised during the scoping process. The draft EIS will be made available for public comment. The comment period for the draft EIS will offer the next opportunity for the applicant; interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public to provide input to the NRC's environmental review process. The comments received on the draft EIS will be considered in the preparation of the final EIS. The final EIS, along with the staff's Safety Evaluation Report (SER), will provide much of the basis for the NRC's decision on the Exelon ESP.

**TABLE 1.** Individuals Providing Comments During Scoping Comment Period

<b>Commenter ID</b>	<b>Commenter</b>	<b>Affiliation (if stated)</b>	<b>Comment Source and ADAMS Accession #</b>
EGCESP-01	Shannon Fisk	Environmental Law and Policy Center	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-02	Steve Davenport	Farmer	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-03	Sandy Moody	DeWitt County	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-04	Kathleen Frick	Citizen Advisory Panel	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-05	Mr. Frank		12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-06	Oscar Shirani	Q-A Consultants	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-07	Kevin Calna		12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-08	Kim Gaff	Clinton Resident	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-09	Gregg Brown	No New Nukes	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-10	Mayor Sirulick	Mayor of Clinton	12/18/03 Scoping Meeting Transcript (ML040330445)

**Table 1. (contd)**

<b>Commenter ID</b>	<b>Commenter</b>	<b>Affiliation (if stated)</b>	<b>Comment Source and ADAMS Accession #</b>
EGCESP-11	Bryan Hickman	City of Clinton	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-12	Terry Ferguson	DeWitt County Board	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-13	Bob Bement	Exelon	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-14	Carolyn Treadway	No New Nukes	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-15	Pat Allison	Clinton School District	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-16	Roger Little	Clinton School District	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-17	Steve Vandiver	Economic Development Director	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-18	Ken Bjelland	DeWitt County Economic Development Committee	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-19	Corey Conn	Board of Nuclear Energy Information Service	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-20	Ruth Ann Lowers	Board of Education	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-21	Ted Lowers	Clinton Businessman	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-22	Harold Weinberg	Clinton Resident	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-23	Robert Adcocit	Welding Inspector	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-24	C. Lee Baker	Past President of Intervenor of ILP Development	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-25	Phil Huckleberry	Illinois Green Party	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-26	Geoff Ower	Illinois State University Chapter of the Student Environmental Action Coalition	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-27	Elizabeth Burns	Illinois Stewardship Alliance	12/18/03 Scoping Meeting Transcript (ML040330445)

**Table 1. (contd)**

<b>Commenter ID</b>	<b>Commenter</b>	<b>Affiliation (if stated)</b>	<b>Comment Source and ADAMS Accession #</b>
EGCESP-28	Karen Lowery	Citizen	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-29	John Workman	IBEW 146	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-30	Dick Baldwin	Clinton Resident	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-31	Monte Campbell	Clinton Resident	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-32	Richard Douglas	Clinton Resident	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-33	Matt Reeder	Illinois Green Party	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-34	Dr. Samuel Galusky	No New Nukes	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-35	Rachel Goad	Student Peace Action Network	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-36	Given Harper	Professor, Illinois Wesleyan University	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-37	Robert Bishop	Nuclear Energy Institute	12/18/03 Scoping Meeting Transcript (ML040330445)
EGCESP-38	Phyllis Wahahrochah-Tasi	Delaware Nation NAGPRA Office	Letter (ML0400807370)
EGCESP-39	Patricia Arbunkle		Letter (ML0402304550)
EGCESP-40	Julie Gowen		Letter (ML0402304570)
EGCESP-41	Gregg Brown	No New Nukes	Letter (ML0402304580)
EGCESP-42	Shannon Fisk	Environmental Law and Policy Center	Letter (ML0402304600)
EGCESP-43	John Froman	Peoria Tribe of Indians of Oklahoma	Letter (ML0402304610)
EGCESP-44	Donald Deiker	Resident of Clinton	E-mail (ML0402304640)
EGCESP-45	Kevin Murphy		E-mail (ML0402304660)
EGCESP-46	Robb Hoover		E-mail (ML0402304680)
EGCESP-47	Dan Moriarity		E-mail (ML0402304710)

**Table 1. (contd)**

<b>Commenter ID</b>	<b>Commenter</b>	<b>Affiliation (if stated)</b>	<b>Comment Source and ADAMS Accession #</b>
EGCESP-48	Ryan Doyle		E-mail (ML0402304730)
EGCESP-49	Roy and Carolyn Treadway		E-mail (ML0402304750)
EGCESP-50	Brooke Barber		E-mail (ML0402304810)
EGCESP-51	Paul Gunter	Nuclear Information and Resource Service	E-mail (ML0402304870)
EGCESP-52	Tina L. Prudhomme	IBEW Local 51	Letter (ML0402304910)
EGCESP-53	Kevin Heiden		Letter (ML0402304950)
EGCESP-54	Unknown		Letter (ML0402304990)
EGCESP-55	Donald Gruber	Clinton Community Schools	Letter (ML0402305160)
EGCESP-56	Dale Holtzcher		E-mail (ML0403308330)
EGCESP-57	Brice Obermeyer	NAGPRA Director, Delaware Tribe of Indians	Letter (ML0404805350)
EGCESP-58	Helen PavLak	Clinton Junior High School	Letter (ML0411900600)

(a) The transcripts can be found under accession number ML040330445.

# **Exelon Generation Company, LLC Early Site Permit (ESP) Public Scoping Meeting Comments and Responses**

The following pages summarize the comments and suggestions received as part of the scoping process and discuss their disposition. Parenthetical numbers after each comment refer to the commenter's ID letter and the comment number. Comments can be tracked to the commenter and the source document through the ID letter and comment number listed in Table 1.

Comments are grouped by category. The categories are:

1. Specific Concerns Related to the Early Site Permit Process
2. Comments Expressing Support for the NRC's Early Site Permit Process
3. Comments Expressing Opposition to the NRC's Early Site Permit Process
4. Comments Expressing Support for Exelon's Early Site Permit
5. Comments Expressing Opposition to Exelon's Early Site Permit
6. Comments Concerning National Environmental Policy Act Compliance
7. Comments Concerning Land Use
8. Comments Concerning Air Quality
9. Comments Concerning Surface Water Use and Quality
10. Comments Concerning Aquatic Ecology
11. Comments Concerning Terrestrial Ecology
12. Comments Concerning Socioeconomic Issues
13. Comments Concerning Cultural Resources
14. Comments Concerning Human Health Issues
15. Comments Concerning the Uranium Fuel Cycle and Waste Management Issues
16. Comments Concerning Postulated Accidents
17. Comments Concerning Alternatives and Alternative Sites
18. Comments Concerning the Safety Review for the Early Site Permit
19. Comments Concerning Safeguard and Security Issues
20. Comments Concerning Emergency Preparedness Issues
21. Comments Concerning Decommissioning
22. Comments Concerning Potential Allegations
23. Comments Concerning the Cost of Power
24. Comments Concerning the Need for Power
25. Comments Concerning Operational Safety Issues
26. Comments Concerning Other Issues
27. Comments Concerning NRC's Administrative Process
28. Comments Expressing Support for Nuclear Power
29. Comments Expressing Opposition to Nuclear Power

## Comments

### **1. Specific Concerns Related to the Early Site Permit Process**

**Comment:** The deadlines for scoping comments and intervention, is that the day you get it in the mail box or it's got to be to you? (EGCESP-S-01-1)

**Response:** *The NRC considered scoping comments postmarked on or before January 9, 2004, the last day of the scoping period, as stated in the "Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process," which was printed in the Federal Register (68 FR 66130, dated November 25, 2003). Comments received after that date were also considered, where possible.*

*An applicant may file a petition for leave to intervene if the letter is postmarked by the terms outlined in the "Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing," which is printed in the Federal Register each time NRC considers an application. The Notice of Opportunity for Hearing regarding the EGC ESP application was issued in the Federal Register on December 12, 2003 (68 R 69426). On January 14, 2004, the Commission amended 10 CFR Part 2 "NRC Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders" (69 FR 2182). The new rule became effective on February 13, 2004. In a memorandum and order issued on March 2, 2004 (ADAMS Accession Number ML040620405), the Commission directed that the EGC ESP proceeding be conducted under the newly promulgated hearing procedures in 10 CFR Part 2. The Commission's memorandum and order also provided that petitioners to intervene in the proceeding would have 60 days to submit contentions (i.e., contentions were due by May 3, 2004). Thus, petitioners were given more than six months to examine the application and formulate contentions by the May 3, 2004, filing date.*

**Comment:** In particular, in 1987, Illinois General Assembly passed a law that provides that no new nuclear plant shall be built in this State until the Illinois EPA determines that the federal government has identified and approved a means for disposal of high level nuclear waste. This is perfectly sensible legislation. This nuclear waste will be with us for 100,000 years, at least. And until we come up with a way to dispose of it, building new nuclear power plants without a disposal method is like building a house without toilets. (EGCESP-S-01-3)

**Comment:** Illinois law states that no new nuclear plant can be located anywhere in Illinois until and unless the Illinois Environmental Protection Agency ("IEPA") makes a finding that the U.S. government has identified a means for disposal of nuclear waste, as follows:

*After the effective date of this amendatory Act of 1987, no construction shall commence on any new nuclear power plant to be located within this State, and no certificate of public convenience and necessity or other authorization shall be issued therefore by the Commission, until the Director of the Illinois Environmental Protection Agency finds that the United States Government, through its authorized agency, has identified and approved a demonstrable technology or means for the disposal of high level nuclear waste, or until such construction has been specifically approved by a statute enacted by the General Assembly.*

The IEPA has not made any such finding. Nor could the IEPA legitimately do so because no license for the suggested Yucca Mountain facility has been applied for, much less "approved." In addition, even if Yucca Mountain is approved, that site does not have the capacity to store all of the high-level wastes that will be created by existing nuclear power plants, much less a proposed new Clinton 2 plant. Thus, any analysis in this EIS is premature in light of the Illinois nuclear moratorium law; in the alternative, the EIS must recognize that any additional source of high-level waste in Illinois at the present time is unacceptable.

In addition, we believe that the NRC cannot simply rely on the Waste Confidence Rule ("WCR"), 10 CFR 51.23, to avoid considering high-level waste issues. The WCR is based on the assumption that sufficient repository capacity will exist to store all waste created by nuclear plants. The possible construction of new nuclear power plants, however, undermines this assumption. As noted above, the proposed Yucca Mountain facility does not even have the capacity to store all of the high-level wastes that will be created by existing nuclear power plants, much less new plants. Therefore, the NRC must consider the impacts of the storage of additional high level waste at the Clinton site. (EGCESP-S-42-1)

**Response:** *The safety and environmental effects of long-term storage of spent fuel onsite have been assessed by the U.S. Nuclear Regulatory Commission (NRC), and, as set forth in the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored on site for at least 30 years beyond the license operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addresses the impacts of both license renewal and potential new reactors. The current rule does cover new reactors and can be used in the staff's review of an ESP application. The rule was last reviewed by the Commission in 1999, when it reaffirmed the findings in the rule (64 FR 68005, dated December 6, 1999).*

**Comment:** So therefore, recognizing that there's no disposal method, Illinois has declared a moratorium on new nuclear power plants making all sites in Illinois inappropriate until the waste problem is solved. So in light of this moratorium, federal approval of a new site would be both inappropriate and meaningless. (EGCESP-S-01-5)

**Comment:** It seems to me that an awful lot of this process is redundant since we already have a nuclear power in place and operating for the last several years. So it looked to me like a lot of the process is kind of unnecessary. (EGCESP-S-02-1)

**Comment:** The fact that we have a power plant now, will that make it quicker and easier as far as you doing this permit process? (EGCESP-S-02-2)

**Response:** *The NRC, according to its regulations, must prepare an EIS and Safety Evaluation Report (SER), both at the early site permit and combined license stages. However, to the extent practical, Exelon may use existing plant information and data to demonstrate the environmental impacts of the proposed plant. NRC will then verify that the information is still valid and accurate.*

**Comment:** Are you going to have several different experts out there gathering information as to whether this site would be appropriate for you? (EGCESP-S-08-1)

**Response:** *Yes, the NRC has a team of experts from the Pacific Northwest National Laboratory gathering information. Each expert specializes in a different subject area, such as terrestrial ecology, aquatic ecology, health physics, land use, hydrology, socioeconomics, and meteorology.*

**Comment:** I guess what I'd like to know is will the residents of DeWitt County receive a survey of any kind, any information from us? Like for instance you were talking about the socioeconomic type of information. Would you be gathering information from us residents? (EGCESP-S-08-2)

**Comment:** Is there opportunities for something like this in the outlying areas where it's easier for people in say some of the other areas who are going to be affected by this decision to come in? Obviously, being here it's easier for certain people to be here and more difficult for other people to be here. I mean, this is directly going to affect people in a much broader area than just right here. So I'm wondering how, if anything's going to allow people in other areas to have their input? (EGCESP-S-09-5)

**Response:** *The NRC will hold public meetings, both at the early site permit and combined license stages, to gather and provide information from the public. Additionally, during the comment period after the EIS is published, any member of the public may submit comments to the NRC regarding the contents of the EIS. During its environmental review, the NRC will meet with local, County, and State agencies to gather information regarding the ESP application. However, the residents of DeWitt County will not receive a formal written survey via the mail from the NRC.*

**Comment:** Would it be possible, it seems reasonable to me to think if it was possible that if looking at the environmental situation given the new technologies, new ways of understanding, if they found out that it isn't suitable for the second site, is it possible the first would be shut down on the basis of this new information? (EGCESP-S-09-1)

**Response:** *The feasibility of using new energy-producing technologies at the proposed site would not dictate that the first reactor be shut down. A reactor can be shut down when the licensee no longer desires to run the reactor or for a safety reason, as determined by the NRC.*

**Comment:** When a plant applies for an early site [permit], do they already have designs that they know that they're going to use? Are there designs that you know that are conducive to only that site because I'm just a layman but there's several different kind of designs of a nuclear plant. So do they then try to develop for this site or do designers already do that no matter what? (EGCESP-S-03-3)

**Response:** *Exelon has not proposed a specific plant design. In lieu of a specific plant design, Exelon has developed a plant parameter envelope, which is a set of design parameters that Exelon expects will bound the characteristics of a reactor or reactors that might later be built at this site. These parameters provide information to allow the NRC to assess the kinds of environmental impacts a plant might have. At the combined license stage, Exelon would submit*

*an ER based on an actual plant design. The NRC will be required to assess the environmental impacts at that time using the information from that ER.*

## **2. Comments Expressing Support for the NRC's Early Site Permit Process**

**Comment:** Just wanted to publicly support the process. I've heard that this process is a pilot for the early site permit. I know it's a lengthy process. Everybody knows how the government's pretty slow in getting through processes.

I just hope we take this opportunity to not only re-evaluate the site but to also look at the process itself to make sure that it is really necessary, see if we can streamline it.  
(EGCESP-S-11-1)

**Comment:** I fully support the process that you're using to determine if you can be granted early site permit. (EGCESP-S-20-1)

**Comment:** It has the goal of being more efficient and more effective, to have more timely decisions being made based on more public input sooner. And this is obviously, I think, one clear and vital example of that, to result in companies that have the responsibility for looking to our future, for providing energy, to enable them to have options to make better business decisions than they might have been able to make in the past under other processes.

To highlight what hopefully is obvious after this long evening, this is not to guarantee, one, that Exelon will be granted this permit. It is, whatever your biases might be, I can assure you from my perspective, the process the NRC goes through is a diligent one. (EGCESP-S-37-4)

**Comment:** I can assure you from my perspective, I wish they agreed with me more. The one thing I cannot challenge is their integrity. I would suggest that would be a good guideline for the rest of you as well. But this is a process that's going to lead to a better decision sooner with more input. I can think of no reason why this process can't achieve the goals that it was intended to achieve. (EGCESP-S-37-5)

**Comment:** The early site permit process is just one element in an improved licensing process for nuclear power plants in America.

*Note: This comment was provided in writing and is in addition to the comments taken from the transcript. (EGCESP-S-37-9)*

**Comment:** In the old licensing process - dating back to the 1960s - safety issues were not fully resolved until after construction was virtually complete. With the new licensing process, the public has more opportunities to comment on licensing and safety issues, and much earlier in the process, as here with the early site permit process...Tonight's meeting is an important part of the new licensing process. This process is a vital step in assessing the viability of this site for a possible new nuclear plant sometime in the future.

*Note: This comment was provided in writing and is in addition to the comments taken from the transcript. (EGCESP-S-37-11)*

**Response:** *These comments provide general information in support of NRC's early site permit process and will not be assessed further.*

### **3. Comments Expressing Opposition to NRC's Early Site Permit Process**

**Comment:** There is no safe place in the U.S. for a new nuclear reactor because there is nothing fair, honorable or safe about the NRC licensing and inspection process. The language of regulations and guidelines governing licensing and operation of a nuclear reactor are now so skewed to favor the nuclear corporations that the NRC, if it were honest about its nature, would list itself as a public relations firm for the nuclear industry, not its watch dog. (EGCESP-S-34-4)

**Response:** *These comments provide general information in opposition to the NRC's early site permit process and will not be assessed further. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

### **4. Comments Expressing Support for Exelon's Early Site Permit**

**Comment:** And I've heard all kinds of bad things about nuclear power, but I'm here to tell you I think it's great. So, I'm definitely in support of the second unit. (EGCESP-S-02-7)

**Comment:** I have served on the Citizens Advisory Panel researching the possibility of Exelon building on the Clinton Power Station site since its inception. We have raised many issues concerning safety to the employees, community members and livestock around the area. After attending monthly meetings for over a years time I support their decision 100% and have absolutely no issues or concerns that it isn't in the best interest of our community if a new site is approved. (EGCESP-S-04-1)

**Comment:** Yes, I know that there have problems at the power plant. However, there's two other things that I know. Most of the people that I'm in association with are very highly educated individuals. I believe that they take their jobs quite seriously. I believe that they have been very well trained. I believe I'm a very well trained professional as well.

I would like to tell you this. I believe that these people certainly know how to prevent accidents. I think that they take a lot of time to train individuals to know what they are doing in this industry. And I also would like to take this one step further. I believe that I'm willing to take the risk for them to build another plant here, and I will welcome you because of that.

I live with people who have their degrees. I socialize with these people. I teach their children. And quite frankly I welcome you into my community and I wish to partner with you. So please come. (EGCESP-S-08-4)

**Comment:** I welcome and support the permitting process. My family and I have never had any feel of fear with the reactor in the community as of right now. I don't know of any environmental impact that has evolved with that reactor so far. (EGCESP-S-10-1)

**Comment:** And I do support this process and this project that Exelon is going through. (EGCESP-S-11-2)

**Comment:** I would like to comment that as a member of the County Board, I think the whole County Board is in favor of the process of seeking an additional power plant here in Clinton. (EGCESP-S-12-1)

**Comment:** I'm proud of the 500 plus people that work at Clinton Power Station. A lot of them have been here since the beginning of construction in the late 1970's and early 1980's. One thing that I have found since I've come to Clinton Power Station is that the employees have great ownership of the site and they are a part of this community. They take great pride in being from this part of the area, the heartland. (EGCESP-S-13-2)

**Comment:** We support the power plant in their efforts to look ahead and see what can be done in this area. That does not mean that when the facts are in, there may be some things that need to be addressed. But certainly the opportunity to do that seems to me to be the right thing to do. (EGCESP-S-16-2)

**Comment:** I support what they're doing. Like I said, there may be some items down the road we need to look at. But as of right now, we need to get there before we make judgments.

The power plant is an important part of the community...And I'm speaking primarily, I think, for myself and the school district. But the power plant has been good to us and to children. (EGCESP-S-16-4)

**Comment:** There's always been a good working relationship as long as I've lived in town with the city, the county and the plant to make sure the safety standards are upheld. And in short, they've always been a good, quiet and contributing neighbor for DeWitt County and the surrounding area. So on behalf of the Economic Development, the City of Clinton and the Chamber of Commerce, we would welcome the expansion of a second plant. (EGCESP-S-17-2)

**Comment:** So the community's worked very hard and continues to work hard in support of our environment and the safety of our citizens and children. (EGCESP-S-20-3)

**Comment:** This has been very good for our community both environmentally and excellent workers with our whole community. And I certainly support the early site permit application of Exelon. (EGCESP-S-21-1)

**Comment:** We encourage the construction of the second reactor at the Clinton Power Station. (EGCESP-S-22-2)

**Comment:** I am in favor of the powerhouse...And I'm in favor of the powerhouse and the craftsmanship is just unbelievable. (EGCESP-S-23-1)

**Comment:** There's no guarantee in life and we're all taking risk. And all I'm here for is to say we support the second plant. And I'm supporting the community for wanting it here. That's all I've got to say about it. There's no guarantee in life. You've got to take risks to succeed. (EGCESP-S-30-1)

**Comment:** I really can't see a problem with this. I can see more of a risk from driving home tonight and killed by a drunk driver than having a problem from Clinton power station. So we support you totally. (EGCESP-S-31-3)

**Comment:** And I'm for you 101 percent. This community needs you and we want you. And I hope you guys come here. (EGCESP-S-32-1)

**Comment:** I think Exelon is to be applauded for their leadership in seeking to use this new process. I've been involved in trying to help work on this process to be, as many of you are in this context, as all of you are in this context, providing your opinions, providing your insight to try to help achieve a better result. (EGCESP-S-37-3)

**Comment:** We fully support the process to locate a second unit at Clinton. (EGCESP-S-44-1)

**Comment:** I'm for a second unit in Clinton. As a past employee of the Clinton Power Station, I feel it is environmental safe and very effective for our economy. (EGCESP-S-52-1)

**Comment:** I support Unit 2 nuclear power plant in Clinton, IL. (EGCESP-S-53-1)

**Comment:** I still in spite of some negative attitudes am for the new unit. Too much is at stake. (EGCESP-S-58-3)

**Response:** *These comments provide general information in support of the Exelon early site permit and will not be assessed further.*

## **5. Comments Expressing Opposition to Exelon's Early Site Permit**

**Comment:** But there is good news going on and it's not a done deal even though the wording of the power point suggests that the ESP is really a foregone conclusion. It isn't. Things are in flux, very liquid. (EGCESP-S-19-4)

**Comment:** So this is not something that we should be doing. It is not to the benefit of the people of Clinton, certainly not to the benefit of the people of Illinois. (EGCESP-S-25-9)

**Comment:** Our organization opposes the expansion of the Clinton Nuclear Power Station primarily because the nuclear power raises a significant threat to our national public health and safety. (EGCESP-S-26-1)

**Comment:** First, the question at issue here, whether there should be a site for a new nuclear power plant here in Clinton has already been answered by the people of Illinois and the answer is no. (EGCESP-S-01-2)

**Comment:** I don't think the Exelon Corporation has been a friend as a corporation. I know that the employees locally, they are your friends. They're not the problems. (EGCESP-S-25-6)

**Comment:** The unsinkable is sinkable and the unthinkable is possible. Building a new reactor at Clinton is an irresponsible risk that should not be taken. (EGCESP-S-26-6)

**Comment:** While ISA [Illinois Stewardship Alliance] commends Exelon for trying to be forward thinking in the energy generation front for its customers on the national grid, we believe that the overall risk posed by nuclear power are much greater than any benefits that will be realized within several generations' lifetimes. (EGCESP-S-27-7)

**Comment:** ISA [Illinois Stewardship Alliance] respectfully request that the NRC denies the ESP for Clinton 2. (EGCESP-S-27-10)

**Comment:** I am opposed to the nuclear power plant. I am opposed to it for not me, not my friends. I'm opposed to it for our future generation. (EGCESP-S-28-1)

**Comment:** I personally am opposed to the expansion of the plant. I feel it's a big enough risk let alone that we have one plant here. And I live in Bloomington and I have family in Champaign, Bloomington, Peoria and all over the state. It's a big enough risk that we have one plant here in case something happens. Do we really need two? (EGCESP-S-33-1)

**Comment:** I will begin by saying that the NRC should abandon any plan to grant Exelon early site permit for Clinton Reactor No. 2. (EGCESP-S-34-3)

**Comment:** There is some hope that Clinton Reactor Number 2 will never get its ESP. (EGCESP-S-34-8)

**Comment:** I protest any plans to grant Exelon an early site permit when it has demonstrated its lack of interest in safeguarding the safety of this region with regards to its current plants. (EGCESP-S-34-12)

**Comment:** I'm concerned about the proposed extension of the Clinton power plant. I believe there are many unanswered questions regarding health and safety as many people have pointed out. I don't believe the benefits of Clinton are going to outweigh the detriment. Nuclear power is not safe. It is not clean. It's deadly to you. (EGCESP-S-35-1)

**Comment:** I am writing in opposition to the granting of an Early Site Permit for a second nuclear reactor at the Clinton facility in Illinois. (EGCESP-S-40-1)

**Comment:** Please do not grant a permit for a second nuclear reactor at the Clinton facility. (EGCESP-S-46-2)

**Comment:** I would like to take this time to say that I fully oppose the proposal of building another reactor on the Clinton site. The early site permit should not be granted to Exelon Corp. (EGCESP-S-47-1)

**Comment:** I'm writing to express my concern about the proposed early site permit for Exelon's Clinton nuclear facility. I strongly oppose this idea and want to urge the NRC to refuse the early site permit request. (EGCESP-S-48-1)

**Comment:** Based on the comments at that meeting and my awareness of safety of nuclear reactors in general, I have severe reservations about the environmental safety of a second nuclear energy plant at Clinton. (EGCESP-S-49-1)

**Comment:** Since I live about 25 miles of the proposed plant, the plant poses an environmental danger to me, as well. The proposed second Clinton Nuclear plant is not safe environmentally and the early site permit should not be approved. (EGCESP-S-49-3)

**Comment:** I am in total opposition to the construction of a second nuclear reactor facility in Clinton, IL. (EGCESP-S-50-1)

**Response:** *These comments provide general information in opposition to the Exelon early site permit and will not be assessed further. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

## **6. Comments Concerning National Environmental Policy Act Compliance**

**Comment:** Maybe you can tell me what to read out there but how big is your environment that you're looking at? Is it southern United States? Northern United States? Southern DeWitt County? DeWitt County? I don't know how big your environment is that you're looking at. (EGCESP-S-03-1)

**Response:** *The area of review by the NRC in this EIS depends upon the environmental resource being reviewed. For example, the northern transmission line runs toward Bloomington, Illinois, for 37 km (23 mi). The southern transmission lines run South through DeWitt County for 13 km (8 mi). The NRC's assessment of the environmental impacts associated with the 50 km (31 mi) of transmission lines will be discussed in Chapter 4 of the EIS.*

**Comment:** On that transmission line, you're talking about the owners of the plant, those transmission lines?...So it's transmission lines of that power. (EGCESP-S-03-2)

**Response:** *The transmission lines are not owned by Exelon. They are owned and maintained by Illinois Power. Exelon has an agreement to use the Illinois Power transmission lines. The environmental review will include the environmental impacts associated with the transmission lines. This will be discussed in Chapter 4 of the EIS.*

## **7. Comments Concerning Land Use**

**Comment:** But from 14,750 head of cattle diminishing to 750 from the time that the Illinois Power Plant was starting to go and land being purchased. We lost that much in agriculture. And today that is still, and this isn't my figures, this comes from the Extension Office and people where we had to get in order to testify before the Nuclear Regulatory Commission. (EGCESP-S-24-1)

**Response:** *The impacts on land use resulting from construction and operation of the proposed facility will be discussed in Chapter 4 of the EIS.*

## **8. Comments Concerning Air Quality**

**Comment:** Nuclear power makes global warming worse. "Whether nuclear can beat coal does not matter because neither of them can beat other options that are free of carbon dioxide," such as wind and solar power. (EGCESP-S-09-13)

**Comment:** Nuclear power is clean. It does not emit greenhouse gases, sulfur dioxide or nitrogen oxide. (EGCESP-S-13-5)

**Comment:** It is the only large-scale, emission-free electricity source that can be readily expanded. Nuclear power plants avoid the emission of sulphur dioxide and nitrogen oxides...the major greenhouse gas, carbon dioxide. (EGCESP-S-37-10)

*Note: This comment was provided in writing and is in addition to the comments taken from the transcript.*

**Comment:** It does produce emissions into our air and water - coal plants are used to create the energy needed in the uranium enrichment process, and so they do pollute contrary to popular belief. (EGCESP-S-47-4)

**Comment:** It seems that the nuclear industry is not held to clean up any facilities after they are built. And of course, safety is another key reason why the proposed plant should not be constructed. Any nuclear facility has the ability to leak out contaminants into the air and water, even through openings as small as 1/16 of an inch. And as it happens, the first Clinton reactor did not have a clean safety record-and now to build another?? (EGCESP-S-50-3)

**Comment:** There will be drifting of some solid materials from the plume associated with the cooling towers. These "salts" or minerals will deposit on downwind areas and could have an impact on residential and agricultural activities. The impact of this deposition should be evaluated for nearby areas. (EGCESP-S-56-1)

**Response:** *This information will be considered in the staff's evaluation of air quality impacts in the EIS. The results of the analysis will be presented in Chapter 4 of the EIS.*

## **9. Comments Concerning Surface Water Use and Quality**

**Comment:** My question is the lake capacity adequate now for the second unit? Do you've got enough water already? (EGCESP-S-05-1)

**Response:** *The NRC is evaluating the impacts of the additional direct and indirect evaporative losses of a wet cooling tower for the early site permit unit. The results of the assessment will be provided in Chapter 4.*

**Comment:** I would imagine part of your environmental impact would have to be measuring the temperature fluctuation of the Clinton Lake in means of the cooling capability. What input does that have on the final design submittal for the cooling aspect of it? That it would be acceptable to use a lake or would it be necessary the design to have a cooling tower? (EGCESP-S-07-1)

**Comment:** It is presumed that Clinton Lake will be used as a cooling lake for the second nuclear power plant. What affects will this additional heated water have on the fish and other organisms inhabiting the lake? (EGCESP-S-36-2)

**Response:** *The impact from any cooling system using the parameters identified in the plant parameter envelope (PPE) will be reviewed in accordance with the environmental standard review plan (NUREG-1555) and discussed in the EIS in Chapter 4. At this time, Exelon has indicated that a closed cooling system employing a cooling tower will be used and not a once-through cooling system. Therefore, the EIS will not consider once-through cooling. If the applicant were subsequently to decide that they were interested in once-through designs, it would be required to revise its application. The particular cooling system ultimately chosen by the applicant will have to fall within the PPE submitted by the applicant or, if it does not, that portion of the review will need to be reassessed at the combined license stage. The environmental impacts of a cooling tower and any temperature fluctuations it would have on Clinton Lake will be assessed in Chapter 4 of the EIS.*

**Comment:** The water quality impacts, Clinton Lake, which serves as a cooling source for Clinton 1 is formed by damming up Salt Creek in the north fork of Salt Creek. Salt Creek itself is part of a much larger watershed being part of the head waters of the Sangiman River.

The waters of this creek pass through numerous small to medium sized communities as they make their way to the Sangiman River and eventually to the Illinois River. The lake itself is used for recreational purposes, boating and swimming and managed by the Illinois Department of Natural Resources. The fisheries of the lake are used by people from throughout Illinois as well as visitors from other states.

According to the National Pollution Discharge Elimination System, NPDES, the permit that is in place for Clinton 1, there is a limit on the temperature change that can occur to the affluent water discharged from the plant. (EGCESP-S-27-1)

**Comment:** Siting a second nuclear plant at the Clinton site could create adverse water supply and quality impacts. First, as acknowledged in Section 5.2 of the Environmental Report, most of the potential designs for a new Clinton 2 nuclear plant would require more water for cooling than would be available in Clinton Lake during drought periods. Second, the additional effluent discharge from the proposed Clinton 2 could increase water temperatures in Clinton Lake, thereby harming aquatic life. These water-related issues must be thoroughly addressed by the NRC in the EIS. (EGCESP-S-42-3)

**Comment:** The EIS for the Clinton nuclear power station is therefore required to address all of the following environmental impacts, including but not limited to: 1. All impacts on the water levels in Clinton Lake arising from increased intake of reactor cooling water for the operation of any proposed new nuclear power units. (EGCESP-S-51-1)

**Comment:** 4. All impacts arising from the increase in the routine discharge of chemicals, heavy metals, cleaning solvents, biocides and radioactive isotopes into Clinton Lake arising from the operation of additional nuclear power units. (EGCESP-S-51-4)

**Comment:** The cooling towers will be discharging stream of about 12,000 gpm into the discharge canal so as to control the concentration of dissolved minerals in the closed cooling water system that runs from the main condenser to the cooling towers. The water in the discharge canal will eventually end up in the lake. The lake has been characterized as a large body of water which has a small inflow and small outflow as compared to lake volume. Such a configuration can lead to a build-up in the lake when a material is constantly being discharged into it. The EIS should review the impact of the cooling tower "blow-down" on the concentration of dissolved solids in the lake and any potential impact on aquatic life in the lake. (EGCESP-S-56-2)

**Response:** *This information will be considered in the staff's evaluation of surface water impacts. The results of the analysis will be presented in Chapter 4 of the EIS.*

#### **10. Comments Concerning Aquatic Ecology**

**Comment:** By adding a second plant to this location there's a possibility for significant increases in lake temperatures, which will in turn result in significant impacts on a water body that's already listed on the Illinois Environmental Protection Agency's list of impaired waters. (EGCESP-S-27-3)

**Comment:** 2. All impacts on the aquatic environment of Clinton Lake arising from the increase in thermal discharge of reactor cooling water as result of the operation of additional nuclear power units. (EGCESP-S-51-2)

**Comment:** 3. All impacts on Clinton Lake arising from the increased impingement and entrainment of fish, fish spawn, other aquatic life and nutrients arising from the increased reactor cooling water intake for any proposed additional nuclear power units. (EGCESP-S-51-3)

**Response:** *The NRC staff will assess potential impacts from the cooling system and resulting aquatic and terrestrial impacts during its evaluation of the ESP application, and the results of the analysis will be presented in Chapter 4 in the EIS.*

#### **11. Comments Concerning Terrestrial Ecology**

**Comment:** One of the gauges I like to use to determine a healthy environment is the amount of wildlife there is in the area. It seems each year we have more pheasants, more quail, more deer, excellent fishing. You know, I would have to gauge that as a testimony that, you know, the Clinton Power Station is not being very detrimental to the environment. (EGCESP-S-12-2)

**Response:** *The NRC staff will assess aquatic and terrestrial impacts during its evaluation of the ESP application, and the results of the analysis will be presented in Chapter 4 in the EIS.*

#### **12. Comments Concerning Socioeconomic Issues**

**Comment:** Of course, jobs, lower real estate taxes that would come with the second unit, of course. (EGCESP-S-02-5)

**Comment:** Last year we paid a little over 10 million dollars in taxes. We contribute thousands of dollars to organizations. There are some recent -- we got the opportunity to participate in the Clinton Ultimate Play Space that was drawn up by children from Clinton. And we got to participate financially and some of our workers help build that.

We also participated in the last United Way campaign, increasing our contributions to the county. Over \$10,000 to this county, which is one of the three counties we split our money with. And as part of the larger companies, larger nuclear company that we are a part of, the company nuclear employees contributed over a million dollars to United Way.

I take great pride in the recent contribution or gifting or donation of the Clinton Lake Marina to the county this past September. We're pleased to have the DeWitt County Board receive the ownership of the marina. The marina is a big part of DeWitt County. Over a million people use the lake annually. And it helps keep revenue coming into this county and we're proud to be a part of gifting that to DeWitt County. (EGCESP-S-13-3)

**Comment:** I also am concerned about funding for schools. Our funding is decreasing and even though I'm going to be retiring in a few years, I would like to see our school system be as good as it has been in the past few years.

Also, I'm very interested in economic development. I have seen our people move out. I've seen our unemployment increase tremendously. I would like for us to have a way to increase our economic development again. (EGCESP-S-15-1)

**Comment:** I have found the power plant to be a partner in the education of the children in the community. A lot of the people that work there have children in our schools. And therefore they have concerns as all of us do. (EGCESP-S-16-1)

**Comment:** This plant has meant a lot to this school district obviously financially. That's not all, though. It's been more important than that because it has been a place for people in the community to have a job and raise children and that's our concern. (EGCESP-S-16-3)

**Comment:** And speaking economically, the Clinton Power Station has been a socioeconomic work horse in DeWitt County for over 30 years, for almost 30 years. Through that time it's provided hundreds of jobs for our area. But it's not just the jobs that it's done for our community. There's a tremendous amount of people the plant has brought to us who have become valuable Clinton DeWitt County residents. Several are friends of mine personally.

They are now volunteers, church members and other contributing citizens for the Clinton area. The taxes paid by the plant have improved our schools, making them some of the finest in the state and helped our county services. And although it doesn't sit within the city limits, it continues to help our city tax base. The plant has purchased fire trucks for our city and helps us cultivate a highly qualified fire and emergency personnel with experience not found in municipalities of our size or even larger because of the extra emergency planning for natural disasters for which they train. (EGCESP-S-17-1)

**Comment:** I'm here tonight representing the DeWitt County Economic Development Committee. And the Committee has discussed this and does support the expansion, the

second unit and we feel that the problems that we've had with our local economy, with the loss from Revere, the loss of Troll and the loss of Imperial China, we really need another opportunity to provide some work in the county for our available work force. And we would welcome the second unit if it's sought to be available. (EGCESP-S-18-1)

**Comment:** But it has provided many construction and permanent jobs in DeWitt County and in the surrounding counties. Our power plant has been a good neighbor and has helped, as we've heard, in many community and civic organizations. Myself and the 600 construction electricians that I represent strongly support the construction of Unit 2 and thank you for your time. (EGCESP-S-29-2)

**Comment:** That it is recognized that the better the economy in a area, the more care is given to the environment. The addition of a second unit at Clinton will provide short-term and long term support to the local economy. (EGCESP-S-44-2)

**Comment:** On behalf of all teachers and staff (about 175 people) of the Clinton Community School District, I would like to express our enthusiastic support of a second nuclear power station at Clinton. We are eternally grateful for the economic benefits our district received from Unit One- as well as those enjoyed by the local economy. (EGCESP-S-55-1)

**Comment:** So I know a few things about living in an area where the unemployment rate is very high, where jobs are leaving and not arriving, about going to a school district that's rural and that doesn't seem to have enough money to actually take care of its students. So I really sympathize with a lot of the things that you're dealing with at Clinton and it really sickens me to see the way that the Exelon Corporation is taking care of people by using them.

This is the same Exelon Corporation that just last month tried to jack rate hikes through the State Legislature for no particular reason in the process of attempting to buy out Illinois Power. Doesn't seem to be a friend to the taxpayer. Doesn't seem to be a friend to the consumer. This is also the same company that not only near where I lived at the Byron plant but also here, in the process of buying out the plant, human victims of a devaluation scheme that significantly lowered the property tax revenue from the plant before. There is no reason to believe that this wouldn't happen again and again with a new reactor as well. (EGCESP-S-25-1)

**Comment:** We don't need the tax dollars in terms of property taxes. We have a tax structure that needs to be changed significantly any way to support poor and more rural districts and we've known that for decades. (EGCESP-S-25-8)

**Comment:** I also know of socioeconomic problems. And I, as well as anybody else, wants food on my table and I want electricity. But I also want to be healthy. (EGCESP-S-28-4)

**Comment:** And I think the negative consequences of building a new plant completely outweigh new jobs that could be brought in from some other source or some other company that's willing to move in here. (EGCESP-S-33-3)

**Comment:** And I understand anxiety and the difficulty that the community is in, any local community that is in economic distress I can appreciate your concerns. (EGCESP-S-19-3)

**Comment:** Now, we have had the change of a marina. In the beginning the Illinois power would not have gotten their construction permit unless they presented an analysis of the cost of the recreation plan for Clinton Lake to be executed. And that was one of the last questions and it was 30 days before they were given their construction permit until they did supply that analysis. And they did. So they were responsible then for the recreation on Clinton Lake. What's happened? That's been changed. The plant's been sold to another firm, organization and who ends up then with the liability of the recreation plan for Clinton Lake? You, the DeWitt County people. (EGCESP-S-24-3)

**Comment:** 10. All potential socio-economic impacts from the elevated national security requirements and countermeasures to protect a larger target of terrorism with the expansion of the nuclear power station site including the indefinite and possibly permanent closure of Clinton Lake to public access for sporting, recreation and other means of community economic livelihood. (EGCESP-S-51-10)

**Comment:** Also, how will the recent sale affect the plant to move forward with the new unit. (EGCESP-S-58-2)

**Response:** *These comments discuss socioeconomic issues. The NRC staff will assess the socioeconomic impacts of the proposed action in Chapter 4 of the EIS, including impacts related to taxes, property values, and recreational use of the lake.*

### **13. Comments Concerning Cultural Resources**

**Comment:** Given the location of the proposed project, we request that you conduct a file search in conjunction with the State Office of Historic Preservation and the state's Archaeological Survey. These state agencies will advise you of the potential for archaeological resources, particularly sites of significant cultural interest or sites that contain human remains. Should either of these agencies determine that there are potentially significant archaeological sites in the area and that these sites are related to the tribe's heritage, the Delaware Nation requests that you contact our offices. Together with the SHPO and State Archaeologist we will develop a plan to best protect these archaeological resources.

Should either of these agencies recommend an archaeological survey or test excavation of the proposed construction site, we ask that the Delaware Nation be informed of the results of the survey. The Delaware Nation also requests copies of any accompanying site forms or reports. Also, any changes to the above referenced project should be resubmitted to the NAGPRA Director of the Delaware Nation for review. Should this project inadvertently uncover an archaeological site and/or human remains, even after an archaeological survey, we request that you immediately contact the appropriate state agencies, as well as the Delaware Nation. Also, we ask that you halt all construction activities until the tribe and these state agencies are consulted. (EGCESP-S-38-1)

**Comment:** The Peoria Tribe of Indians of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Peoria Tribe request notification and further consultation. The Peoria Tribe has no objection to the proposed construction. However, if any

human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted. (EGCESP-S-43-1)

**Comment:** Our review indicates that this project is located in an area that was not inhabited by the Delaware Tribe. As such, there is little potential for impacting unknown archaeological sites culturally affiliated with the Delaware Tribe and we have no particular objection to the proposal. (EGCESP-S-57-1)

**Response:** *As part of its environmental review of historic and cultural resources, the staff met with the Illinois State Historic Preservation Office (SHPO) and other appropriate information sources. The results of the analysis will be presented in Chapter 4 of the EIS, and the staff will take any appropriate action called for as a result of this review.*

#### **14. Comments Concerning Human Health Issues**

**Comment:** Breast cancer rates in communities within 50 miles of a nuclear reactor increase by an average of 14-40% while the reactor is operating. Areas with more than one reactor have higher cancer rates than single-reactor sites. The increases cannot be attributed to fallout from nuclear weapons tests. Nationally, breast cancer increases by an average of 1% per year in areas without nuclear reactor exposure (Radiation and Public Health Project) (EGCESP-S-09-21)

**Comment:** Babies born within 50 miles of a reactor have a higher risk of suffering low birth weights or newborn death. While health experts hoped these figures would fall as U.S. neonatal and natal care improved, our country's figure have actually gone up significantly, by 4-8% over expected cases. Thyroid cancer and hypothyroidism rates are also increasing in areas near nuclear reactors. No New Nukes hopes to work with the Radiation and Public Health Project to get current figures for the existing Clinton reactor. (EGCESP-S-09-22)

**Comment:** By analyzing 50 years of U.S. National Cancer Institute data, Dr. Gould showed that "of the 3,000-odd counties in the United States, women living in about 1,300 nuclear counties (located within 100 miles of a reactor) are at the greatest risk of dying of breast cancer." Dr. Gould found similar risks for prostate cancer among men living in nuclear counties. (EGCESP-S-09-7)

**Comment:** The Radiation and Public Health Project (RPHP) Baby Teeth Study is the first to measure radioactivity in the bodies of Americans living near nuclear reactors. It will also help determine whether this radioactivity raises the risk of cancer in children and adults.

The study grew out a Jay M. Gould's book "The Enemy Within: The High Cost of Living Near Nuclear Reactors," which found that women living within 100 miles of nuclear reactors are at greatest risk of dying of breast cancer.

An earlier study showed that radioactivity in baby teeth rose rapidly due to fallout from atomic bomb tests above the Nevada desert in the 1950s and 1960s, a time when childhood cancer rates were also rising. This information was instrumental in the 1963 ban of above-ground tests by the United States and Soviet Union. The federal government withdrew funding for the study

in 1970, and no longer collects information on how much radioactivity is entering our bodies. (EGCESP-S-09-10)

**Comment:** This plant is a danger to our health. And if we allow it to not only stay, but also to grow, it is a danger to our conscience.

Any source of energy that causes tremendous amounts of death and suffering is immoral. End of story.

And this damage is not just a local problem. According to the speaker last Monday night, infant mortality as well as breast cancer rates caused by the plant, are up all the way into Indiana.

These statistics are similar for all of the 11 plants in Illinois, and the 113 in America. This is a lot of death we're talking about.

In order to gauge the severity of nuclear contamination in humans, the Radiation and Public Health Project has put together an experiment to see how much Strontium-90 is in baby teeth. Strontium-90 is produced only by atomic bombs and nuclear reactors, and is chemically similar to calcium. So when the body finds the poison, it uses it as calcium and stores it in teeth and bones.

Earlier studies showed that radioactivity levels were raised in the 1950s and 1960s, and were continued until the government withdrew funding in 1970.

The government no longer does any research on Americans to find out how much radioactivity is entering our bodies.

Well, let me get this straight. The U.S. government allows and even encourages the production of nuclear energy, even though there is solid proof people are dying because of it? We are allowed to live in towns surrounding these plants, but I highly doubt citizens of and around, Braidwood, Byron, Clinton, Dresden, LaSalle County, Limerick, Oyster Creek, Peach Bottom, the Quad Cities, Rock Island and Zion know precisely what they're up against.

Do they know why their babies are dying?

Probably not. I highly doubt the families who suffer this tremendous loss would just let the perpetrator go on committing the crime if they did. (EGCESP-S-09-11)

**Comment:** Reactors currently in operation cause cancer, heart disease, immune deficiency disorders, fetal deformities, and still births every day. Legal radiation releases harm us. We don't need to add to our radiation burden by building another reactor. (EGCESP-S-09-17)

**Comment:** Most citizens believe that reactors don't routinely release radiation and radioactive particles into the air and water. By the Nuclear Regulatory Commission's (NRC) own calculations, U.S. reactors released 370 curies, or about 1.6 curies per million persons during the 1970-1987 period. ("The Enemy Within") Those living closest to reactors got the highest doses. Because anything released from a nuclear reactor is considered "background

radiation" after one year, the NRC can make yearly releases look very small. Unfortunately, some radioactive releases accumulate over time, increasing our health risks in the process. (EGCESP-S-09-20)

**Comment:** We do know that radiation is destructive to persons, to living creatures and to the environment. Why then would we ever possibly risk destruction of our lives and the web of life? Notice I said risk. I didn't say we would. I said we would risk it. Why would we even consider unleashing the power of the atom in ways that allow incomprehensible risks. I say incomprehensible because we have not even yet begun to comprehend those risks or to take them seriously. (EGCESP-S-14-2)

**Comment:** We also know it's not clean because we have evidence that suggest that in DeWitt and Pyatt County that when the Clinton Reactor No. 1 has been running in the '90's as opposed to when it has not been running, the infant mortality rates rise. There's also evidence to suggest that cancer rates rise. A lot of people have spoken saying that they haven't seen any environmental concerns. These are concerns that leap right out in your face. Certainly everyone in the room knows someone who has suffered from cancer, possibly even died from it. You don't know what caused that cancer. Why would you take that risk that cancer might have been somehow related to the operation of a nuclear power plant near you?

That's a risk that isn't going to go away. And we're never going to be able to convincingly prove one way or the other, perhaps, that it was actually nuclear power that did it. So those problems are visible. (EGCESP-S-25-5)

**Comment:** Building a new reactor in Clinton, Illinois would pose a threat to our national food supply. Even during normal operation, nuclear reactors knowingly release radioactive fission products that fall out over surrounding lands. In the case of central Illinois that means agriculture lands. The proposed site for the new reactor is located in the midst of some of the richest agricultural land in the world...One of the radioactive daughter products find its way into our food is strontium-90, which falls onto broad leaves which in turn are consumed by either people or animals. We see greens of all kinds absorb high doses of radioactive particles, as do grasses that are fed to livestock. There are a myriad of ways that radioactive particles enter the food chain. They can also fall out onto fresh water lakes and streams or be released into these water bodies in coolant water. (EGCESP-S-26-4)

**Comment:** I would like to address environmental concerns affecting infant mortality that we've been discussing. The Clinton Nuclear Reactor was off line, shut down during the period of 1996 to 1998. Using State of Illinois Health Department data on infant mortality, and this is defined as deaths in children under one year of age, infant mortality data for calculated for the three years prior to the shut down, 1993 to 1995, the three-year period surrounding the shut down of '96 to '98 and the three years after restart, '99 to '01.

Based on the prevailing winds, the following counties were considered downwind of the Clinton Reactor plume. And I might note that it is more than just DeWitt and Pyatt County. These counties include DeWitt, Pyatt, Champaign, Moltry, Douglas, Coles and Vamilia. Two other counties as well in Indiana were considered but I won't be using those in terms of our data

discussion this evening. The surrounding counties in the north, south and west are considered up wind. They are Taswell, Christian, Ford, McClain, Megan, Logan and Sangiman. And every studied county downwind to the Clinton Reactor, infant mortality dramatically decreased during the shut down period from 9.04 deaths per 1,000 live births in the period prior to the restart to 4.6 deaths per 1,000 live births during the period where the reactor was shut down.

During the same period infant mortality rates in the surrounding upwind counties remain statistically unchanged; 8.5 deaths per 1,000 live births down to 8.35 deaths per 1,000 live births. After restart, infant mortality rates soared upwards all of the downwind counties from 4.6 deaths per 1,000 live births to 9.8 deaths per 1,000 live births. But it continued to drop in the upwind counties.

This study strongly suggests the presence of the Clinton Reactor when it is on line is decreasing infant health. Additionally, this study is not alone in its findings. The Radiation Public Health Project studied infant mortality in cancer rates in counties surrounding eight reactors across the country after shut down. In all eight cases, infant deaths and childhood cancers dropped dramatically two years after shut down. (EGCESP-S-34-1)

**Comment:** There is a hidden health cost to nuclear power. The NRC regulation regarding low level radiation releases into the environment need to be re-examined. What will the health costs continued operations of power station be and what will the health cost of a second reactor be? (EGCESP-S-34-2)

**Comment:** And so that this observation is made in public, I want to point out just one underhanded use of language that the NRC and the nuclear industry uses over and over again to lull concerned citizens in to believe that the NRC is, in fact, safeguarding the public's interest. We are told repeatedly that radiation emissions from a nuclear reactor are far lessor, far less radiation that -- exposed to background radiation.

What the NRC does not point out is that background radiation includes emissions from radioactive chemicals which occur naturally and those which result in a nuclear effluent process itself, whereas part of the munitions manufacturing or nuclear energy reactors. In fact, emissions release by a nuclear reactor are considered background radiation after one year, whether this one year old particulate is still dangerous or not. NRC guidelines also say that should a second reactor open in Clinton, each reactor would be entitled to count emissions from the plant next door as background radiation. So, the citizens of central Illinois would never know exactly how much radiation is being released from the two plants unless they calculated themselves if they could even find the data necessary for such a calculation given the fact the NRC has stopped publishing its yearly report on radioactive particular emissions from U.S. reactors. What citizens need to realize is the NRC never talks about natural background radiation, which includes emissions from radioactive chemicals which are not man made. The NRC can't talk about natural background radiation because there's nothing natural about their standards of background radiation though they will make it sound like their standards are as safe as living in a basement apartment with a radon remediation system in place. (EGCESP-S-34-6)

**Comment:** In your booklet "Citizen's Guide to US Nuclear Regulator Commission Information" I found two disturbing quotes on page seven. The first, in the section on high-level waste states "The disposal of high-level radioactive waste requires a determination of acceptable health and environmental impacts over thousands of years." Who gave you the right to determine what is "acceptable" harm to inflict on the future? If we can't create something without harming the future, we shouldn't create it at all. (EGCESP-S-41-2)

**Comment:** 6. All impacts on the public health and environment arising out of the increase in routine and accidental radioactive emissions to the air and to the water as the result of the operation of additional nuclear power units. The analysis should consider work by Dr. John Gofman, showing that low-level radiation, at levels considered to be safe for medical use, is a significant contributor to deaths from heart disease and cancer. See Radiation from Medical Procedures in the Pathogenesis of Cancer and Ischemic Heart Disease (Committee for Nuclear Responsibility: 1999). (EGCESP-S-51-6)

**Comment:** And I want to tell you all that I was this size before the nuclear power plant was built. So, that had no affect on me that I know of. (EGCESP-S-02-3)

**Comment:** Reasons for this include the possible negative impacts on aquatic life and possible increase in the populations of *N. fowleri* (*Naegleria fowleri*). (EGCESP-S-27-2)

**Comment:** In addition, should a significant event occur at the plant or plants and a radioactive release occurs to the lake, the impacts will be far reaching not only to those in the immediate area but to a significant portion of central Illinois. Water supplies and land use will be negatively impacted possibly for decades to come. (EGCESP-S-27-4)

**Comment:** They send the survey that one guy's talking about that checks my quality of life, my animals, my garden. I've never heard of any negative impacts of that. (EGCESP-S-31-2)

**Comment:** According to the NRC's own guidelines, NRC 10 CFR 52.18, Part 100 regarding this ESP scoping meeting, the NRC must evaluate the nature and proximity of human related hazards at the proposed reactor site. Proximity of the current Clinton Reactor No. 1 is a human related hazard that should be sufficiently investigated before any plans for an ESP for a second Clinton Reactor is approved. (EGCESP-S-34-9)

**Comment:** There is clear evidence that nuclear reactors adversely affect public health. As a society we have a moral obligation to our present and future citizens to prevent these hazards if at all reasonably possible. (EGCESP-S-40-2)

**Comment:** I want to tell you that infant mortality rates that they're spouting up here are not only incorrect, what they're telling you is absolutely and totally wrong and I can tell you why. I happen to be the Birth through Three Teacher for the Clinton School District and I work with 84 families right now and 92 babies. I work in concert with the DeWitt FI County Health Department, which means I have to gather information for them to compile and report through the state. You need to know this. The babies that have died in Clinton have not died as a result of radiation or any other hazard such as that. However, I'd like to tell you what they have died from. We happen to have one of the highest rates of domestic abuse and violence in the state. I also happen to have one of the highest teen pregnancy rates in the state. And we also

have a very high unemployment rate. Now, if you know anything about socioeconomic factors, that certainly plays into what has happened to these young babies. (EGCESP-S-08-3)

**Comment:** Second, I have the envelope put out by the Tooth Fairy Project, which is measuring the level of radioactive isotopes strontium in our baby's teeth. Since the government is no longer monitoring the level of radioactivity that is entering our bodies, at least not in an official way, it seems to me that someone has to do it. And the new information on the infant mortality rates downwind of the Clinton facility makes the Tooth Fairy Project Study even more important. (EGCESP-S-09-3)

Due to a 60 percent rise in radioactive isotope Strontium-90 in our babies' teeth since the late 1980s, with the counties closest to nuclear reactors having the highest levels, I urge you to avoid using a second nuclear reactor at the Clinton, Illinois facility. (EGCESP-S-39-1)

Radioactive Sr-90 [Strontium-90] is one of the deadliest elements release by nuclear facilities. The chemical structure of Sr-90 is so similar to that of calcium that the body gets fooled and deposits Sr-90 in the bones and teeth where it remains, continually emitting cancer-causing radiation. Most of the strontium in the baby teeth is transferred to the fetus by the mother during pregnancy. Because we know when and where the baby was born, and where the mother lived while carrying, we can accurately determine when and where radioactivity was absorbed from the environment. (EGCESP-S-09-9)

The Radiation and Public Health Project has found a 60 percent rise in radioactive isotope Strontium-90 in our babies' teeth since the late 1980s, with the counties closest to nuclear reactors having the highest levels. It is important to understand that Strontium-90 doesn't occur in nature. It is produced by the fission of either nuclear bombs or nuclear power plants. It is also important to understand that it doesn't take an accident for a nuclear power plant to release radioactive material: That material is released during the routine operation of those facilities. RPHP has found significant elevations in the infant mortality rates of counties downwind of the Clinton facility during the years the plant is operating and reductions of that rate when the plant is shut-down. That data has been previously published in The Pantagraph. Our babies' bodies weren't meant to hold Strontium-90. That was not part of the creator's plan. The NRC must hear from us. Tell them you don't want Strontium-90 in our children's bodies. Tell them that is too high a price. (EGCESP-S-41-6)

**Response:** *The NRC's regulatory limits for radiological protection are set to protect workers and the public from the harmful health effects of radiation on humans. The limits, including effluent release limits, are based on the recommendations of standards-setting organizations. Radiation standards reflect extensive ongoing study by national and international organizations (International Commission on Radiological Protection [ICRP], National Council on Radiation Protection and Measurements, and National Academy of Sciences) and are conservative to ensure that the public and workers at nuclear power plants are protected. The NRC radiation exposure standards are presented in 10 CFR Part 20, "Standards for Protection Against Radiation," and are based on the recommendations in ICRP Publications 26 and 30. In addition, the U.S. Environmental Protection Agency has established a whole body dose limit of 25 millirem per year (see 40 CFR Part 190). Finally, Appendix I to 10 CFR Part 50 provides dose design objectives for exposure of the public to radioactive effluents from nuclear reactors.*

*Numerous scientifically designed, peer-reviewed studies of personnel exposed to occupational levels of radiation (versus life-threatening accident doses or medical therapeutic levels) have shown minimal effect to human health, and any effect was from exposures well above the exposure levels of the typical member of the public from normal operation of a nuclear power plant.*

*Regarding health effects to populations around nuclear power plants, NRC relies on the studies performed by the National Cancer Institute (NCI). NCI conducted a study in 1990, "Cancer in Populations Living Near Nuclear Facilities," to look at cancer mortality rates around 52 nuclear power plants, 9 U.S. Department of Energy facilities, and 1 former commercial fuel reprocessing facility. The NCI study concluded from the evidence available that there is no suggestion that nuclear facilities may be linked causally with excess deaths from leukemia or from other cancers in populations living nearby. Additionally, the American Cancer Society has concluded that although reports about cancer case clusters in such communities have raised public concern, studies show that clusters do not occur more often near nuclear plants than they do by chance elsewhere in the population.*

*Strontium 90 (Sr-90) is produced in roughly 5.8% of nuclear fissions in a reactor's fuel elements and undergoes radioactive decay with a half-life of almost 29 years. Sr-90, and its radioactive decay product yttrium-90 (Y-90), are not harmful unless they are near or inside the body. They are easily shielded if outside the body, resulting in no radiation exposure. The statement is made in one of the comments that the government does not require environmental measurements of Sr-90. On the contrary, NRC licensees perform environmental monitoring for radionuclides in the vicinity of each nuclear reactor. Based on the results of their environmental monitoring program, no elevated levels of radionuclides in the environment attributed to plant operation have been detected. Compared to other radionuclides, both natural and human-made, Sr-90 is not one of the more toxic. For example, naturally occurring thorium-230 is 700 times more radiotoxic for inhalation.*

*The issue of radioactive effluents and their impacts on human health will be assessed in Chapter 4 of the EIS.*

**Comment:** A particular concern is the potentially pathogenic amoeba, *Naegleria fowleri* that resides in Clinton Lake. And actually the fact that it does reside in Clinton Lake has been documented in a study published in a scientific journal applied in environmental microbiology.

When exposed to warm water this amoeba can become pathogenic and can cause a deadly type of encephalitis in humans. Will the construction of the additional nuclear power plant increase the likelihood of the presence of the deadly form of this amoeba in Clinton Lake? And finally, what affects will this have on the people swimming and skiing in the lake?

(EGCESP-S-36-3)

**Response:** *The NRC will assess human health impacts of the proposed action and present the results in Chapter 4 of the EIS.*

**Comment:** The Federal Government no longer collects information on how much radioactivity is entering our bones. Yet this information is crucial for determining whether nuclear power

plants and weapons facilities are affecting our health and contributing to America's cancer epidemic. (EGCESP-S-09-8)

**Response:** *Measurements of radioactive substances in the body would be misleading and unwarranted. Radioactive substances come from a variety of sources. Interpreting measurements of radioactive materials in people is difficult unless one knows what each individual was exposed to, when the exposure occurred, and by what routes they occurred (ingestion, inhalation, etc.). Also, mitigation must be accounted for, because people may have lived and acquired radionuclides elsewhere than near a nuclear power plant. Finally, substances in the human body are dynamic, not static. This includes radioactive and nonradioactive substances. The dynamic processes include intake of material; uptake to systemic circulation from the gastrointestinal tract, respiratory tract or skin; translocation throughout the body system; retention over time; and elimination via excretion and radioactive decay.*

*Nevertheless, NRC requires the licensee to perform environmental monitoring for radionuclides in the vicinity of each nuclear reactor to ensure that regulatory limits set to protect workers and public health are maintained. The limits, including effluent release limits, are based on recommendations of standards-setting organizations. Radiation standards reflect extensive ongoing study by national and international organizations (International Commission on Radiological Protection, National Council on Radiation Protection and Measurements, and National Academy of Sciences) and are conservative to ensure that the public and workers at nuclear power plants are protected. The issue of radioactive effluents and their impact to human health will be assessed in Chapter 4 of the EIS.*

**Comment:** NRC is acting and talking like it's already decided this plant will go through. For real discussion, experts need to present the grave dangers with equal time. Or even more time, since the health of everyone in downstate Illinois is at risk from nuclear plants. (EGCESP-S-54-2)

**Response:** *The decision to issue an ESP has not been made at this time. The EIS will be prepared in accordance with the requirements of 10 CFR 52.18 and 10 CFR Part 51. The evaluation of impacts to human health will be discussed in Chapter 4.*

## **15. Comments Concerning the Uranium Fuel Cycle and Waste Management Issues**

**Comment:** And I'm here because I'm very, very concerned about radioactive nuclear waste from Clinton Power Plant 1 and proposed Clinton Power Plant 2. (EGCESP-S-14-1)

**Comment:** The fact is that nuclear energy, whether it's unleashed through nuclear bombs or small deadly munitions or a nuclear power plant, all leads to the same end product, which is radioactive nuclear waste. We humans who have made the terrible mistake of creating this waste have absolutely no clue what to do with it now that it exists. No clue where to store it, how to transport it nor how to store it in ways that will keep it for the tens of thousands to millions of years that this radioactivity will remain extraordinary lethal.

And who will keep it safe? Who will keep it safe? The radioactivity of the radioactive waste that already exist will need to be cared for far longer than human civilization has even existed. In a

nuclear plant, every day routine operation radioactivity is released into our air, water and soil. (EGCESP-S-14-3)

**Comment:** If you had a large medical center with a thousand laboratories using radioactive materials, you would have a combined inventory of about two curies of radiation, I understand from my sources, and in contrast operating a nuclear power reactor will have about 16 billion queries [curies] in its reactor core. This is the equivalent of a long lived radioactivity of at least 1,000 Hiroshima bombs, 1,000 Hiroshima bombs in the size of a reactor like Clinton.

Just one pound of plutonium, which is the most toxic known element and remains deadly for 250,000 years. If it was evenly distributed and ingested will kill everybody on the planet, one pound. And yet a thousand megawatt power plant the size of Clinton 1 produces nearly 180 metric tons of radioactivity waste per year, high level radioactive waste. Is all of this waste plutonium? No, it's not. But do we need more high level radioactive waste of any kind? No. (EGCESP-S-14-5)

**Comment:** What is happening to the spent fuel rods and other radioactive waste in Clinton Reactor 1, let alone for Clinton Reactor 2? How full is the storage? How safe is the storage? What's going to happen when the storage here is filled? What's going to happen about transporting it? How and when and where will it be transported? Where will it be kept? Who on earth would want this waste near them or transported through them? And what if there is no safe place? We do not know how to keep this safe for 250,000 years or millions of years. (EGCESP-S-14-6)

**Comment:** There's a discussion about Yucca Mountain being a site. If it is ever approved, it would not open until 2010. And so waste wouldn't even start flowing until then. And in addition, Yucca Mountain doesn't even have enough capacity to hold all the waste that is being produced by plants that are currently operating, much less new plants. (EGCESP-S-01-4)

**Comment:** Neither the industry nor the government knows exactly what to do with nuclear waste. A national waste repository in Yucca Mountain, NV is likely to be held up in court for many years - the state of Nevada does not want the site. Native people are being forced to take some of the waste, again(st) the wishes of the people who live there. (EGCESP-S-09-24)

**Comment:** Nuclear energy is not safe for our environment or to our public health. It creates waste that we currently do not know how to dispose of. Yucca Mountain is definitely not a safe option, the science tells us that, and the transportation to such a location would endanger all the American people that live near the transportation routes. Not to mention the devastating effects that an accident could have on our food supply - as most of the routes to Yucca through the Great Plains are surrounded by farms. Even besides all this, if Yucca was approved, all the space in it is accounted for already. There would be no room for more waste from Clinton IL that's for sure. (EGCESP-S-48-2)

**Comment:** We have to be careful about the legacy we are leaving to our children's children's children's children. A legacy of lethal radiation relieved [left] to them to tend. (EGCESP-S-14-10)

**Comment:** That is just like the waste that it produces and that also has to be disposed of and put under ground away from man for the next 45,000 years. (EGCESP-S-24-5)

**Comment:** It's also not clean. We know that it's not clean because we have the nuclear waste to deal with. (EGCESP-S-25-4)

**Comment:** This waste that we have that we're developing, we can't comprehend the damage it will do and the way it will have to be stored. (EGCESP-S-28-2)

**Comment:** Nuclear power is dirty. It creates waste that will be horribly dangerous to every single future generation to come. (EGCESP-S-47-3)

**Comment:** High level wastes, some of which would be stored at the Clinton site, are very lethal when exposed directly to human beings. While they may be contained for many years at the site without direct deaths to humans, they cannot be stored there or any where without exposure directly to humans. No place, even the proposed Yucca Mountain area proposed for long-term storage, can be maintained for the thousands of years that some of the nuclear wastes will be lethal to humans. Further, just proximity to a nuclear reactor and wastes may indirectly raise the death rates of persons living nearby. The nuclear wastes at the second (or first) nuclear power plant cannot be made safe. They pose an environmental danger to the population living near the Clinton plant. (EGCESP-S-49-2)

**Comment:** 5. All impacts arising from the additional accumulation of high-level nuclear waste generated and indefinitely stored on-site at Clinton nuclear power station as the result of the operation of additional nuclear power reactors. This discussion is required, given that the Waste Confidence Rule applies only to waste generated by "existing facility licenses." 55 Fed. Reg. 38,474 (September 18, 1990). (EGCESP-S-51-5)

**Response:** *The safety and environmental effects of long-term storage of spent fuel onsite have been assessed by the NRC, and, as set forth in the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the license operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addressed the impacts of both license renewal and potential new reactors. Therefore, the current rule can be used in the staff's review of an early site permit application. In its most recent review of the Waste Confidence Rule on December 6, 1999 (64 FR 68005), the Commission reaffirmed the findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the Commission states in the rule that there is reasonable assurance that at least one geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity for the spent fuel will be available within 30 years beyond the licensed life for operation of any reactor.*

**Comment:** The production of nuclear waste kills babies, women, men, children. This is not just another left-wing plight. This is a matter of sanity. (EGCESP-S-09-12)

**Comment:** On transportation issues related to spent fuel; as stated at the March 20th, 2003 Pre-Application Early Site Permit Public Meeting, Clinton 1 is already at 60 percent capacity for storage of spent fuel. The management there is considering asking for permission to rerack this spent fuel to allow for more storage space at the site. Assumptions are that a national depository will open in the near future and that this spent fuel will be transported to this site for final storage.

In order to transport this waste, it could be moved by rail and tracks leased to Canadian National. Those tracks not only go through the heart of the City of Clinton, the cars will also be traveling through many more Illinois communities before exiting the state on the way to Yucca Mountain. You heard the railroad go by tonight.

Should an incident occur on this route, the immediate community could suffer an extreme radiological event with long term radiation and an inevitable result. No matter what jobs could be generated by building and operating a second nuclear reactor at the Clinton site, it is highly unlikely that the benefits afforded to the people in portions of DeWitt County could counter act such an event. Economic impacts on the citizens of Illinois; much is made of the green benefits of nuclear power. However, in good conscience, we must look at long term generational impacts and cause of nuclear waste on the citizens of Illinois and of this nation. Since all we know is that Exelon wants to have permission to build a second nuclear plant on this site, we can therefore conclude that there will be waste associated with the plant. For reasons stated above, ISA believes this is not in the best of interest of the citizens of Illinois to have to assume the risk of such generation of high level nuclear waste entails. (EGCESP-S-27-5)

**Response:** *The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 4 of the EIS.*

## **16. Comments Concerning Postulated Accidents**

**Comment:** Each reactor has the potential to have a catastrophic accident severe enough to destroy for thousands of years all land within 250 miles of the reactor. Industry observers admit that a core meltdown accident has a 50 percent probability of occurring in any decade. (EGCESP-S-09-16)

**Comment:** Each reactor has potential to have a catastrophic accident severe enough to destroy for thousands of years all life within 250 miles and with a fifty percent possibility occurring in any decade, in every decade. This possibility is too high for me. (EGCESP-S-14-8)

**Comment:** A worst case accident resulting in a breach in the containment building at any nuclear reactor here in the United States would be devastating not only to the people of our country but also to the global community as a bloom of deadly radioactive fall out would spread worldwide, just as it did in the Chernobyl tragedy. Clinton, Illinois specifically is not a suitable site for numerous reasons. One of them is its close proximity to Chicago. It is not a smart decision to build a new reactor up wind to a major population center. If the containment building were breached in an accident with winds blowing from the southwest to the northeast,

Chicago would be contaminated and destroyed in what would be the worst tragedy in the United States history. (EGCESP-S-26-2)

**Comment:** It doubles the risk of something happening. And there is no guarantee in life, as it has been said. But if there is no guarantee in life and there's always a risk that a catastrophic accident could happen, and that's going to affect us, that's going to affect everybody who lives here. (EGCESP-S-33-2)

**Response:** *The environmental impacts of postulated accidents will be assessed, and the results of this analysis will be presented in Chapter 4 of the EIS.*

**Comment:** 7. All impacts on public health and safety arising out of a severe accident, including the impacts of the accident itself, sheltering, evacuation, radiation exposure treatment and reoccupation or relocation of entire communities in the event of an accident at an expanded Clinton site. (EGCESP-S-51-7)

**Response:** *The SER prepared for the ESP application will assess issues related to emergency planning (see 10 CFR 52.18), including consultation with the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA). In addition, the staff will document in the SER whether the site characteristics are such that adequate security plans and measures can be developed (see 10 CFR 100.21). The environmental impacts of postulated accidents will be assessed, and the results of this analysis will be presented in Chapter 4 of the EIS.*

**Comment:** 8. All impacts arising from the simultaneous operation of the existing and aging Clinton power reactor in close proximity to any new proposed advanced reactor design, including the possibility of multiple, simultaneous accidents, whether related (e.g. by fire or natural disaster) or unrelated. (EGCESP-S-51-8)

**Response:** *Existing requirements provide assurance that the probability of simultaneous accidents at multiple units would be substantially less (e.g., over an order of magnitude) than the probability of accidents involving a single unit. For example, 10 CFR Part 50, General Design Criterion 5, "Sharing of structures, systems, and components," requires that structures, systems, and components important to safety not be shared unless it can be shown that such sharing will not significantly impair their ability to perform their safety functions, including, in the event of an accident in one unit, an orderly shutdown and cooldown of the remaining units. Also, a plant- and site-specific probabilistic risk assessment (PRA) will be required prior to operation of any future plant pursuant to 10 CFR 50.34(f)(1)(i). This PRA will determine whether the risk from the as-built units will be low and will account for any inter-unit dependencies. In contrast, the consequences associated with an accident involving multiple units (e.g., a multi-unit core-melt accident) could reasonably be expected to be only marginally greater than for a single unit event. For example, given the same accident release characteristics for both units, the total releases from two reactor cores (and the associated accident consequences) would, as a first-order-of-magnitude approximation, be about twice that for a single unit. The substantially lower frequency of a multiple unit accident would more than offset the potentially greater consequences of the multiple unit accident. Thus, the risk associated with multiple, simultaneous accidents would be a negligible contributor to the overall*

*risk from all units on the site. Accordingly, the staff does not plan to address multi-unit accidents as part of the ESP review.*

## **17. Comments Concerning Alternatives and Alternative Sites**

**Comment:** Second issue I wanted to address is alternatives. We believe that the NRC is legally required to objectively evaluate alternative sources of energy, especially removable [renewable] energy sources and energy conservation. (EGCESP-S-01-6)

**Comment:** And, in fact, the National Environmental Policy Act specifically requires a consideration of all alternatives, which includes alternative energy sources. Exelon's application relies on 20 year old data to basically dismiss clean energy alternatives as, you know, unreliable and not realistic. But, in fact, renewable energy sources and energy efficiency present a lower cost, safer and environmentally cleaner approach to meeting Illinois' energy needs than nuclear power would. For example, federal studies show that wind power can supply up to 20 percent of the U.S.'s energy needs and energy efficiency efforts can reduce energy demand by 33 percent by 2020. Of course, jobs and economic develop(ment) are at issue, obviously. It's very important to the community. But clean energy alternatives and energy efficiency provides significant job opportunities. For example, wind turbines are considered the cash crop of the 21st Century because they very easily fit in a farm where a farmer can get extra cash from the energy produced by wind turbines. In addition, the opportunities for economic development and energy efficiency technology are great. And we're currently falling behind other countries that invest in that.

Therefore, we believe that the NRC should give fair consideration to alternative ways of meeting whatever power to be produced by this proposed second unit. (EGCESP-S-01-8)

**Comment:** Conservation and economical alternative energy sources will one day make nuclear power obsolete. U.S. energy intensity is down 40% from doomsday government and industry projections announced in the 1980's. (EGCESP-S-09-15)

**Comment:** And then I invite you to act with me in every way possible to decrease energy consumption, to develop renewable and safe clean energy and that will allow Clinton 1 and every other plant to be shut down forever. (EGCESP-S-14-11)

**Comment:** This is also the same company that has repeatedly blocked in the last year attempts on the part of the Illinois Legislature to institute renewable energy portfolio standards, which would institute and guarantee that wind power, solar power would be explored, used, power that if you do the research you'll find can be cheaper than nuclear power. (EGCESP-S-25-2)

**Comment:** We don't need the power from nuclear power. We can get it from wind and other renewable energy sources. (EGCESP-S-25-7)

**Comment:** We encourage Exelon to look toward more renewable energy sources. (EGCESP-S-27-8)

**Comment:** And I challenge the Chamber of Commerce, I challenge the DeWitt County Board, I challenge you to bring in industry into this county that is alternative energy, that is healthy industry that will not affect our future children. (EGCESP-S-28-5)

**Comment:** The NRC also sets out in the guidelines for this meeting that it is interested in those facts that demonstrate their obviously superior alternative energy sources for this region. Based on reports and articles in the Environmental Law and Policy Center, the nuclear energy institutes the 20th anniversary conference. Wind, solar, biomass of geothermal energy approaches are far more cost effective than anything nuclear power has to offer. And these alternative energy approaches also would offer an incredible number of jobs for citizens in the region far more quickly than the proposed Clinton Reactor No. 2 can offer and should be seriously considered by those running this meeting that these alternative energy approaches do not produce the intensely hazardous radioactive waste products that nuclear reactors produce every day. (EGCESP-S-34-13)

**Comment:** But large scale generation of electricity does not lend itself to solar generation, to windmills. They all are contributors. So I would suggest to you, from my perspective and having worked in energy policy for quite some time, it's not a question of which. It's a question of all.

I don't think we have the luxury with the population growth, with the demand growth that we see in the future to dismiss out of hand any source. We need everything we can get. They all have their risk, they all have their benefits. (EGCESP-S-37-7)

**Comment:** Instead of a second nuclear reactor at this site which would release radioactive material into the environment, The Environmental Law and Policy Center has developed a plan called "Repowering the Midwest: the Clean Energy Development Plan for the Heartland." Please consider this plan instead of a second nuclear reactor at the Clinton site. (EGCESP-S-39-2)

**Comment:** Without question there are reasonable alternatives even though pursuing them may require conservation, putting up with energy shortages at least in the short-run, and investing in the development of alternative sources of energy. (EGCESP-S-40-3)

**Comment:** The Environmental Law and Policy Center has developed a plan called "Repowering the Midwest: The Clean Energy Development Plan for the Heartland." That plan reduces our use of nuclear power while creating more jobs and making/saving more money than building more nuclear reactors would. Ask the NRC to seriously consider that plan. (EGCESP-S-41-7)

**Comment:** While consideration of whether there is a need for the power from construction and operation of a new Clinton 2 nuclear plant is barred by the NRC, id., the consideration of alternative means of meeting a need for that power is not foreclosed. In fact, the NRC is required to develop and explore, pursuant to Section 102(2)(E) of NEPA, "appropriate alternatives to recommended courses of action in any proposal, which involves unresolved conflicts concerning alternative uses of available resources." 10 CFR 51.45. Energy efficiency and renewable energy resources clearly qualify as "appropriate alternatives" to the siting of the proposed new Clinton 2 nuclear plant and must be rigorously explored and objectively

evaluated as part of the EIS. Although Exelon included a discussion of renewable energy resources and energy efficiency in Section 9.2 of its Environmental Report, Exelon nonetheless improperly relied on outdated information to conclude that such alternatives are not feasible. Exelon's discussion relies heavily on the NRC's 1996 Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, which, in turn, is based on data from the early 1990s regarding the viability of wind power, solar power, and energy efficiency. Technological improvements and market developments since the early 1990s, however, have greatly increased the efficiency and capacity of these alternatives, while at the same time reducing their costs and environmental impacts. The NRC's analysis of renewable energy resource and energy efficiency alternatives must reflect current knowledge and information regarding the economic and technological feasibility of these alternatives, as well as the comparative environmental impacts. (EGCESP-S-42-2)

**Comment:** I urge you to consider the plan put forth by the Environmental Law and Policy Center, 'Repowering the Midwest: the Clean Energy Development Plan for the Heartland.' It outlines ways to reduce our use of nuclear power without sacrificing jobs. (EGCESP-S-46-1)

**Comment:** We need to start using safe energy alternatives such as wind and solar power not dangerous nuclear power. (EGCESP-S-48-3)

**Comment:** Instead put money, time, and investigation into constructing clean energy sources that can create a safe environment, permanent safe jobs, revenue for communities, and save government and tax payer money. (EGCESP-S-50-5)

**Comment:** 1. Whether effects on the environment would be reduced if Exelon alternatively implemented more applications of energy efficiency technologies and energy conservation rather than the development of additional nuclear power capacity at the Clinton site. The Renewable Energy Policy Project has demonstrated that innovative and well-managed efficiency programs would reduce annual increases in electric growth by 61%, substantially reducing demand over a twenty-year period. (EGCESP-S-51-12)

**Comment:** 2. Whether effects on the environment would be reduced if Exelon alternatively implemented use of passive solar, photovoltaic, wind turbines and hybrid renewable energy systems rather than the development of additional nuclear power capacity at the Clinton site. (EGCESP-S-51-13)

**Comment:** 3. Whether effects on the environment would be reduced if Exelon alternatively implemented greater use of natural gas energy rather than the development of additional nuclear power capacity at the Clinton site. (EGCESP-S-51-14)

**Comment:** 4. Whether effects on the environment would be reduced if Exelon alternatively implemented broader applications of the above mentioned resources as distributed power systems rather than increased reliance on an increasingly vulnerable electrical grid system connecting any additional new power capacity at the Clinton site. (EGCESP-S-51-15)

**Response:** *The staff will prepare an EIS in accordance with the requirements of 10 CFR 52.18 and 10 CFR 51. As discussed in proposed changes to Part 52 published in the Federal Register on July 3, 2003 (68 FR 40025), consideration of alternative energy sources need not*

be included in the applicant's ER. In the case of the Exelon application, Exelon did choose to include a consideration of alternative energy sources, and, therefore, the staff will assess energy conservation using current available data.

## **18. Comments Concerning the Safety Review for the Early Site Permit**

**Comment:** The EIS should also address the potential threat to control room habitability at Clinton 2 created by siting the new plant next to an existing older plant (Clinton 1). Many of the new plant designs have streamlined and economized the control room radiation protection. The EIS should evaluate the potential impacts of an accident at the older Clinton I plant on the control room habitability of the new proposed Clinton 2 plant. (EGCESP-S-42-6)

**Response:** *Advanced reactor designs were intended to be stand-alone designs and the proximity to another facility may require the designs to be modified. Design modifications will be addressed in the combined license application. This issue is not within the scope of the environmental review, and will not be discussed further.*

**Comment:** 11. All impacts arising from seismic hazards posed to the Clinton site expansion by the New Madrid Seismic Zone. (EGCESP-S-51-11)

**Comment:** The proposed site for the new reactor is not suitable because of its proximity to the New Madrid fault line, which is the -- the largest earthquake in the history of the United States. -- is not thought of as a place threatened by earthquakes because obviously they occur less frequently here. However, the New Madrid fault line is and will remain an unpredictable threat to existing Clinton Power Station nonetheless.

Buildings can be engineered to be earthquake proof. But the unexpected happens. This was illustrated by the unexpected collapse of the World Trade Center that was engineered to withstand the impact of jumbo jets. (EGCESP-S-26-5)

**Comment:** The NRC must carefully analyze the potential hazards posed to the Clinton site by significant seismic activity in the New Madrid Seismic Zone ("NMSZ"), which is located less than 250 miles away. In 1811, there was a massive earthquake in the NMSZ, measuring well over 8.0 on the Richter scale. New data from the Mid-America Earthquake Center, which is funded by the National Science Foundation and affiliated with the University of Illinois, suggests the probability of another significant earthquake in the NMSZ within the foreseeable future. As part of the EIS process, the NRC should carry out a thorough evaluation, based on the most recent data, of potential seismic hazards to the Clinton nuclear plant site. (EGCESP-S-42-4)

**Response:** *As part of the NRC's site safety review, the staff will consider whether the site is suitable based on seismic considerations. The results of this review will be found in the site SER. This issue is not within the scope of the environmental review.*

## **19. Comments Concerning Safeguard and Security Issues**

**Comment:** Therefore, we believe that this issue [security plans] should be addressed at this stage and not only at the Site Safety Review but also in the Environmental Review. And the reason there is because a site safety review, it's very hard for the public to intervene. There's a

special intervention process while the environmental review, anybody from the public can comment and review it in forums such as these. (EGCESP-S-01-10)

**Comment:** As far as security and safety, I do not have a problem. (EGCESP-S-31-1)

**Comment:** 9. All impacts arising from increased security risks and tasks associated with the proposed site expansion of the Clinton nuclear power station given the federal government's acknowledgment that threats to nuclear power stations by acts of terrorism can be delivered in part or in combination from the air, the water and by land. (EGCESP-S-51-9)

**Comment:** Finally, we call on the NRC to give a full airing of safety issues, especially those relating to heightened terrorist threats since 9-11. And admittedly, quickly, in view of all the documents that were filed in application, I couldn't find any discussion of the terrorist issue or the terrorism issue, which seemed shocking to me given that so much has changed. And in addition to Exelon's filing, it states that detailed security plans will be addressed during the construction licensing stage instead of now. I would think before deciding whether you want a second site here, you would want to know what the plans for dealing with security are and what the plans for dealing with the heightened terrorist threats are. (EGCESP-S-01-9)

**Comment:** Abandoning nuclear power can contribute to world peace. Every reactor not built, or shut down, creates a world in which rogue countries and terrorists have more trouble acquiring what they need to build nuclear weapons. (EGCESP-S-09-14)

**Comment:** Government and industry experts now recognize that terrorist threats to existing nuclear reactors are not adequately being addressed by the NRC or the industry. About 50% of U.S. reactors failed NRC Operational Safeguards Response Evaluation force-on-force tests, meaning that the mock attackers would have been able to disable enough plant systems to cause "significant core damage," (Lyman "the Limits of Technical Fixes"). The nuclear industry resist spending additional dollars on plant safety. (EGCESP-S-09-23)

**Comment:** The Sept. 11 World Trade Center attack should make it abundantly clear that it's time to begin the orderly, planned phase-out of nuclear power. Indeed, when three members of Congress and six state legislators from New York call for closure of the Indian Point reactors near New York, the people of Illinois- the most nuclear-reliant state in the nation with 14 reactors and spent fuel pools- should be asking serious questions about their own security.

Sept 11 has transformed nuclear reactors from being mere electrical generators of dubious safety into potential terrorist targets - World Trade Centers with 1,000 Hiroshima's' worth of radiation inside. The alleged benefits of the electricity we receive from nuclear power must now be compared against the now very real and potentially catastrophic costs emanating from their vulnerability as lucrative terrorist targets.

The "unthinkable" must now be thought. The best and brightest minds of the federal Nuclear Regulatory Commission (NRC) and the nuclear industry, who for years assuaged the public's fears about terrorist attacks at reactors by maintaining that the very idea was "not a credible threat," are now left at best scrambling to beef up reactor security.

At worst, they are inventing new ways to placate the public's now legitimate concerns about reactor vulnerability.

The NRC deserves severe criticism and congressional investigation for its historic mishandling of reactor security.

It knew of these vulnerabilities for years, yet did not require the nuclear industry to change reactor design to make them more resistant to airliner or even conventional terrorist assaults.

The NRC actively ignored warnings from credible security analysts who urged greater reactor security measures be taken, white-washed demonstrated failures of reactor security tests, and finally, was willing to allow the industry to evaluate itself in this area.

If we are truly at war, those presiding over this irresponsible regulatory inaction should be indicted for treason. Because the NRC finds itself in a position requiring cover up for past inaction- and has begun doing so by limiting the bulk of its Website to public scrutiny- its future pronouncements and actions should not be accepted at face value as credible by the public or Congress without additional independent analysis.

Current belated attempts to improve reactor security are laudable and necessary but, regrettable, are insufficient. While a National Guard presence is certainly warranted, and will prevent some kinds of land and water terrorist assaults, it will not thwart an airliner attack from the skies, even with the Draconian measure of installing anti-aircraft weaponry at reactors, as has been done in France. The first few "accidental" shoot-downs of commercial or private aircraft will be unacceptable to the public. The first "successful" terrorist attack using commercial aircraft will render further debate meaningless.

If ever there were a time to begin the methodical phase-out of nuclear power, that time is now. Yet despite the great hazard that continued operation of these reactors represents, President Bush and Vice President Cheney propose a national energy plan that calls for building 150 new terrorist targets. (EGCESP-S-09-25)

**Comment:** The September 11, 2001 attack on the World Trade Center changed a lot of things. It demonstrated the very infrastructure on which we base modern technological living can be both target and weapon.

Nowhere is this dual hazard more obvious than at the 103 operating nuclear reactors in the U.S. (11 in Illinois) Several times since then, reactors have been placed on "high-alert" for the potential for terrorist attack.

However, when it comes to nuclear reactor security the federal Nuclear Regulatory Commission (NRC) has been more a lapdog for the nuclear industry than a watchdog protecting the public. While ignoring a decade of deteriorating security conditions at U.S. reactors made public by citizen groups, and a failure rate of nearly 50% in security tests at reactors, the NRC now considers allowing the industry to set its own security standards.

Further the NRC has finally admitted publicly that U.S. reactors cannot withstand the impact of today's commercial jetliners, and were not designed to do so, even though the NRC and nuclear industry stated publicly for over 20 years that they could.

For over 20 years the NRC has knowingly placed the America people in direct hazard from terrorist threat, and is doing little to change this sorry state. Nearly 1,000 Hiroshima's worth of radiation is present in reactors; more in the unreinforced spent fuel pools. Yet the regulators do nothing that will make a significant difference. (EGCESP-S-09-26)

**Comment:** Nuclear industry cheerleaders, regulators and Congressional sycophants routinely refer to nuclear reactor security as "robust" and "formidable," saying it "meets exacting federal standards" and demonstrates "significant security protections."

We have never seen anyone demonstrate that these standards are sufficiently stringent to deter terrorist assault. Indeed, the lesson from the Nuclear Regulatory Commission's own "force on force" tests of the 1990's is clear: a team of four individuals, armed only with light weapons and having informed the nuclear reactor site in advance when they were coming, were sufficient to defeat reactor security nearly 50 percent of the time. We fail to see how this protects the public and the environment. (EGCESP-S-09-27)

**Comment:** (In-)Security of existing reactors

1. Response to 9.11 was haphazard and inadequate
2. Current situation seems similarly inadequate
3. Nuclear Energy Institute Service report: Here Today, THERE Tomorrow: Commercial Reactor Sites as Terrorist Targets (EGCESP-S-09-31)

**Comment:** We have seen what has happened to the immediate community of DeWitt County when the terrorism levels have changed and shut downs are enforced. It is highly conceivable that Clinton Lake and the surrounding state recreational area could be shut down for homeland security reasons at some time in the future.

Clinton 1 represents a large enough area on its own for insuring adequate security in the immediate area. But if a security shut down of roads, waterways and rails is instituted, then it is entirely conceivable that the flight patterns of the four major airports in the region will be impacted as well. (EGCESP-S-27-6)

**Comment:** High level radioactive waste is currently stored outside the containment building of the current reactor and presumably will be stored outside the containment building of the proposed reactor. And I would like to ask the NRC what are the special environmental concerns you should consider in the event that an airliner crashes into the storage site, similar to the airline crashes in the World Trade Center on 9-11? (EGCESP-S-36-1)

**Comment:** Although Section 7 of Exelon's Environmental Report discusses the environmental impacts of various postulated accidents, Exelon does not mention in the Environmental Report the potential environmental consequences of a terrorist act at the Clinton plant. Exelon's omission occurs at a time heightened security concerns and, apparently, real vulnerability of nuclear plants to infiltration and attack. Former NRC Chair Richard Meserve acknowledged

shortly after the September 11, 2001 terrorist attacks on the U.S. that the design basis for currently operating plants does not include the ability-to withstand the impact of a fully-loaded Boeing 757 or 767 airplane. In addition, a large number of plants failed to survive the "force on force" security tests that the NRC carried out in the 1990s. The potential impact of terrorism should be rigorously explored and objectively evaluated as part of the EIS, not only in the safety evaluation report, and the public should be given the opportunity to comment on this issue. (EGCESP-S-42-5)

**Comment:** Nuclear power is dangerous. With the increased risk of terrorist attacks in this country, it is complete idiocy to continue using such a dangerous energy source. Nuclear facilities are not designed to withstand an airliner. Or crashing into them and yet there are innumerable amounts of reactors near - major cities which could in turn cause the deaths of millions of Americans if another terrorist attack should occur. Or like in Chernobyl, there doesn't need to be a plane crashing into them, people make mistakes, and machinery malfunction. This is too great a risk to take for our desire of electricity ESPECIALLY when there are viable energy alternatives such as wind and solar which are benign. (EGCESP-S-47-5)

**Comment:** 5. Whether effects on the environment would be reduced if Exelon alternatively implemented some or all of the above-mentioned applications as security countermeasures to any act of terrorism that would seek to target an expanded nuclear power station site for the purpose of creating widespread radiological catastrophe. (EGCESP-S-51-16)

**Response:** *The staff will review information regarding physical security and will document in the SER its determination as to whether the site characteristics are such that adequate security plans and measures can be developed (see 10 CFR 100.21). However, the staff will not be evaluating a detailed security plan at this time. If Exelon applies for a combined license, it would have to supply a series of plans for NRC staff review, in accordance with 10 CFR 50.34, including a safeguards contingency plan, a physical security plan, and a guard training and qualifications plan. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public web site ([www.nrc.gov](http://www.nrc.gov)). Because safeguards and security issues are outside the scope of this EIS, these comments will not be assessed as part of the environmental review.*

## **20. Comments Concerning Emergency Preparedness Issues**

**Comment:** And so the second thing I would like to cover is the target area of the nuclear power plant. 65 miles, takes in all the major cities, central part of Illinois, excluding the Chicago area and the St. Louis area. If something happens you've graduated from five or ten miles out in circles. (EGCESP-S-24-2)

**Comment:** Are there treatment facilities for radiation burns at local hospitals? In case of an accident, are there sufficient isolated facilities within local hospitals to handle a potentially high number of casualties? These facilities must be isolated from other parts of the hospital to avoid contaminating them.

The radioactive waste must eventually be transported to storage facilities at other locations. What emergency procedures are in place if an accident occurs? The radioactive waste must

travel through a number of towns on its way to a permanent storage facility. How adequately trained are emergency personnel, particularly those in small towns, to deal with a nuclear accident? Do these personnel have the proper protective clothing, etc., to protect themselves from radiation while cleaning up an accident? (EGCESP-S-36-4)

*Note: This comment was provided in writing and is in addition to comments taken from the transcript.*

**Response:** *As part of its site safety review, the NRC staff will determine, after consultation with the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA), whether there are any significant impediments to the development of emergency plans and whether the major features of emergency plans submitted by Exelon are acceptable (see 10 CFR 52.18). The currently operating unit has an emergency plan in place that has been reviewed and approved by both the NRC and FEMA.*

## **21. Comments Concerning Decommissioning**

**Comment:** The second, in the section on Decommissioning states "Some facilities require more complex decommissioning activities for timely cleanup of unusual and difficult sites, particularly these with a great deal of soil contamination or with old contaminated buildings." So in your own literature you have to acknowledge that nuclear power is not as safe and clean as you otherwise present it to be. What are these sites "unusual and difficult?" What the "great deal of soil contamination?" The public has a right to straight answers to these questions. (EGCESP-S-41-3)

**Comment:** The end results when the first reactor is no longer in use and has to be dismantled or left there as a monument for the rest of time. (EGCESP-S-24-4)

**Comment:** We encourage...commit the necessary funds toward the decommissioning of Clinton 1 when that time comes. (EGCESP-S-27-9)

**Response:** *The environmental impact from decommissioning a permanently shutdown commercial nuclear power reactor is discussed in Supplement 1 to NUREG-0586, Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, which was published in 2002. For most environmental issues, the impact from decommissioning activities is considered small. The NRC requirements establish a framework to ensure that decommissioning of all nuclear reactor facilities will be accomplished in a safe and timely manner, and that funding will be available for this purpose. NRC regulations regarding the methods used to ensure that funds will be available to cover the decommissioning process are in 10 CFR 50.75. These comments do not relate to the environmental impacts of the Exelon ESP application, and will not be assessed further.*

## **22. Comments Concerning Potential Allegations**

**Comment:** There are three incidents within the last three years at the Exelon Quad Cities, Byron and Dresden, material blow up in pieces inside the reactor containment. It means that Exelon itself tonight is sitting down and talking about the credibility of the Exelon for falsification of record and pushing them for the criminal prosecution for 10 CFR 50.5, for falsifying the

quality assurance record. We are sitting here and trying to see if we can give them another license to run another plant. (EGCESP-S-06-1)

**Comment:** Since [Grundy County] is known as the highest contaminated soil in the country with seven to nine children, from seven to age nine, has been diagnosed with a cancer as -- set it on July 10th NRC publicly, I would like to know whether the NRC is going to inspect all Com Ed, Exelon records to make sure this time they not willfully, as they admitted, that they falsified records and EPA or NRC is going to give them \$80,000 fine, which is a pocket change.

I want to make sure that NRC this time ensures that the public has a value and they're not going to falsify the contaminated soil level caused seven to nine children, innocent kids to be diagnosed with a cancer. And that's what everyone is concerned with. (EGCESP-S-06-2)

**Comment:** July 20th of 2003, I got the highest achievement award from American Society of Mechanical Engineering -- I gave a tutorial course. Right in front of me was the best engineers around the world, was listening to the design flaws and welding flaws and all the falsification of the Exelon findings that my audit found. There was not a single dispute. I have run it by thousands of PhD's. It's all on the Web Site. You could read Oscar Shirani on Google.com or Yahoo.com or you could go to R. Huffman at Animatedsoftware.com. Also, David Lockbaum [Lochbaum] wrote a complainer on December 1st, 2003 to the NRC complaining the NRC processes of the flaws in their design inspection process.

I was banned from the nuclear industry by Exelon for 18 months. Finally I found a contract job and I went to Constellation Energy. After three months the Vice President of Engineering at Constellation, who came from Com Ed, I lost my job. Again, four months I was out of job. Finally I got a contracting job and I went to Cooper Nuclear Station and two weeks ago I found safety issues again that I could not look the other way. And I lost my job again.

Here is a guy who is teaching the codes on the industry cannot find a job even with the NRC. I have applied for more than 40 job applications within the NRC. The NRC has also banned me from the industry. All I want, I want to teach. I don't want to put them, put me, find in the audits and shut down the plants. I want to make sure that our plants are safe. (EGCESP-S-06-3)

**Comment:** I was there to make sure they do the right thing. I was there telling them that we own this plant 52 weeks in a year and it's a shame that NRC comes with one or two weeks and find all these flaws. Let's do it, do it right in house. Once NRC comes, they're going to give us sense.

But instead production, two million dollars a day is at stake. NRC came and told Com Ed once their plant was on a watch list. They knew I worked for an architect engineer firms. And when they was in the industry for the structure and design analysis, they used my name and they put me to answer the 50.54(f) letters of the NRC. I went to Sargent and Lundy, Bechtel, Stone and Webster, GE and I find findings in all of them. But the worst one was at General Electric, Nuclear Energy, San Jose, California. We looked at 54 analysis. All 54 failed, 100 percent design flaw. They are the claimant of six signal. It means three fabians in one medium cortex. (EGCESP-S-06-5)

**Comment:** The point is this, I'm not claiming that we don't have regulations. We have lots of, tons of SCR, USFSAR, that is good for the shelf. The problem is once you start opening up and look at the worms inside the can, that's where the weakness of the NRC comes. We think that if this industry shall exist we need resources within the NRC. We need technical competency and we need a thorough investigations. Most of my audits was either three months after the NRC or a few months before the NRC. The NRC went to GE, blessed their QA program three months before me in 1997. I wanted to shut down GE and rightfully so.

They falsified my audit reports. All the calculation which shows that we are not in an activity and elastic range was taken out of the audit report. As you see, the material in a layman's term is a rubber band. You could stretch it. As long as you stretch it within the design limit, which is in SER, USFSAR, CFR 50 Appendix B. And all the code of regulations it tells you that you only can operate in an elastic range. And you need to know where is your design allowable established by 10 CFR 50 Appendix A. If you are exceeding that, it means you have to give notification to the NRC Part 21, Report In Significance Condition. (EGCESP-S-06-6)

**Comment:** What I want to make sure that they took me out of the nuclear, forged my signature and they laid me off. Now, do we want the industry to have engineers and quality assurance to be a bunch of cowards? If they listen to my story, they will be cowards because they're going to lose their job and the whole NUPIC knows what happened to me. My boss was the NUPIC Secretary. The week after all the NUPIC members, the members that I taught, I was the lead of the NUPIC most difficult audits in the industry. They knew I am banned and I'm suing Com Ed. There is a problem in the system. If we want a safe nuclear, I was never anti nuclear. And now, with all that knowledge, with all that education, I went to Constellation Energy, they cracked the concrete. They did not report it to the NRC. NRC, if you go above design basis, you have to report it to the NRC. They even cracked the material and they didn't call the NRC. I am scared for your kids and my kids. Does it work for me to get my paycheck? I was bribed by GE, if I cooperate, give them all that answers they want, they will hire me as executives. I was bribed by Dr. Sink of Holtec, that if I hide the issues that I found in a spent nuclear field dry cask, he's going to give me a six figure as an executive summary.

But I remember my dad says, do the right thing. My kids and your kids have to live around this nuclear plant. My knowledge should not come and haunt me. My knowledge should help to protect you and I should, the way I am banned from the industry, it seems that I have committed a crime. All I did to protect you and myself and our future generation. (EGCESP-S-06-8)

**Comment:** Based on a 1997 audit filed by Oscar Shirani, once lead auditor for Exelon and Com Ed, the current Clinton reactor may be operating outside of federal guidelines for safe operation. I say may be because the NRC has yet to adequately investigations brought by Shirani. According to Shirani, recent plant upgrades of Exelon reactors have put in place redesigns of equipment and software that have never been inadequately tested for safety. A power uprate, in Shirani's term, involves a squeeze in the middle to get more juice out of it. Shirani's audit findings of 1997 demonstrated that Exelon reactors are already being pushed to the limits of their engineer capacity and the power of procedures such as the open that Clinton put in place just last year being that the nuclear may now be operating outside of safe design perimeters. Shirani found no less than 54 problems with Exelon's design process and called for a stop work order that shut down the entire Design Department. Did the NRC take the findings

of this well respected auditor seriously and make sure that all 54 problems were addressed according to the federal guidelines written to handle some problems? No. Instead the NRC and Exelon with heavy pressure from other nuclear corporations acted as if all was well, lifted the stop work order and finessed Shirani's dismissal from Exelon to attempt to silence him. (EGCESP-S-34-10)

**Comment:** The NRC is willing to expose the simple Illinois citizens to what I feel is unacceptable level of risk in order to keep a financially ailing nuclear industry afloat. I believe that the current Clinton Reactor No. 1 operating without having Shirani's allegations explored as they relate to the Clinton plant may be posing a serious and safety danger to our community and would certainly pose a safety danger to any second reactor at an adjacent site. (EGCESP-S-34-11)

**Response:** *The NRC's environmental review is confined to environmental matters relevant to the ESP requested by the applicant. However, the comments have been forwarded to the appropriate NRC personnel for their consideration.*

### **23. Comments Concerning the Cost of Power**

**Comment:** Most nuclear reactors cost 500% more to build than planned - and our tax dollars and utility bills pay for the cost overruns. This year we are giving Exelon millions of tax dollars just to prepare its nuclear reactor application. If we don't stop this reactor, our tax dollars will provide guaranteed loans to build the reactor, though some doubt whether Exelon will repay the loans. (EGCESP-S-09-18)

**Comment:** Clinton Reactor #1 cost \$4.4 billion, after industry experts promised it would cost a fourth of that. When it couldn't operate safely or economically, and Illinois Power had to sell it, Exelon bought it for a garage-sale price of \$20 million. Clinton is still reeling from the lost tax revenue. (EGCESP-S-09-19)

**Comment:** My last point is the cost. If it's going to take some three billion dollars to build this new plant, which my source has said, what could we do with that three billion dollars to develop wind power, biomass power and solar power, which are clean, renewable and safe? (EGCESP-S-14-9)

**Comment:** The reason for that is because nuclear power is actually one of the most expensive in the country. You don't realize that when you pay your electric bill because most of the money that goes into that actually comes from your pockets other ways through federal tax dollars that go to supplement that money. So it's cheap as far as your electrical bill goes but wouldn't it be a lot better if your tax dollars were actually just going to your schools in the first place so that you could have the schools that you want in the first place. (EGCESP-S-25-3)

**Comment:** Also, nuclear energy is not cheap. If you remove all the government subsidies, you've got an extremely expensive way to boil water. We should use that tax money for other more important things. (EGCESP-S-47-6)

**Comment:** There are numerous reasons that the plant should not be built, for merely environmental reasons, if not for the cost to taxpayers, the necessary subsidizing of government funds, and the heavy burden of the decommissioning process. (EGCESP-S-50-2)

**Response:** *As discussed in Attachment 3 of RS-002, issued May 3, 2004, the cost of the proposed action need not be considered in an ESP. If Exelon should apply for a construction permit or combined license at some time in the future, the issue of the cost of power will be assessed at that time. Therefore, this issue will not be assessed further during the ESP review.*

**Comment:** We want to point out that the financing for this new reactor certainly is in competition with the funds that apparently are being set aside for the long term liabilities and decommissioning in the radioactive waste management from Clinton 1. I'd be curious what the ratio of those funds are. (EGCESP-S-19-2)

**Response:** *Decommissioning funding and funding for the activities at the Clinton Power Station Unit 1 are separate from the cost of the ESP application and will not impact the Unit 1 funds.*

#### **24. Comments Concerning the Need for Power**

**Comment:** The NRC regulations do say that they don't have to consider a need for additional power, which, I guess, you know, is due to the fact that right now there's a glut of power in Illinois so there isn't a need for additional power. But aside that, nothing in the regulations prohibit the NRC from considering alternative ways of meeting the assumed need. (EGCESP-S-01-7)

**Comment:** I must confess that I'm addicted to electricity. Everything that's worth while operates by electricity. (EGCESP-S-02-4)

**Comment:** And then also plenty of energy for the future. And the alarmists are going to say, and they can tell you how dangerous the screwdriver was, but even an automobile emits carbon dioxide and pollution but if you don't think an automobile's not hazardous, run into a tree going about 65 miles an hour. (EGCESP-S-02-6)

**Comment:** And when we look at the needs of power in the future, it seems to me that the nuclear power is the only way to go. You know, there are environmental concerns for drilling oil, gas, you know, whatever. But I think this is the right track. (EGCESP-S-12-3)

**Comment:** As the nation's largest operating nuclear power plants and one of the largest utilities, we continue to plan and develop to meet the needs of this great nation, meet the electricity needs. The planning and preparation are long term and we weigh numerous options in the process. We are exercising one of those business options by filing an early site permit with the Nuclear Regulatory Commission. (EGCESP-S-13-6)

**Comment:** Where we are in the decision process is this. Should you need additional generation capacity and should we conclude that nuclear is the best alternative fuel source, then the Clinton site appears to be an attractive area. The reason it is is because of the things that will be evaluated with environmental. (EGCESP-S-13-7)

**Comment:** The population of this country is increasing. The use of electricity has increased and is vital for the well being of our people. Electricity is an essential utility. The future health and welfare of our people depend on adequate electric power. By increasing the capacity at the Clinton Power Station with an additional reactor assures the people of adequate and affordable electric power. (EGCESP-S-22-1)

**Comment:** We as a country have not done very well in planning our energy future. (EGCESP-S-37-1)

**Comment:** Even if we're to maintain only the same proportion of electricity generated from non-emitting sources that exist now, we're going to need many more new nuclear power plants because there is only so much and companies like Exelon are pursuing a variety of different methods. (EGCESP-S-37-6)

**Comment:** Given the current energy options in the United States, there is no and never will be a need for a single new nuclear plant in this country. (EGCESP-S-47-2)

**Comment:** The EIS must assess: 1. All impacts associated with an evaluation of the need for power and whether effects on the environment would be reduced if no action were taken to increase nuclear generating capacity. (EGCESP-S-51-17)

**Response:** *The NRC staff will prepare an EIS in accordance with the requirements of 10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will determine whether this site would be suitable for one or more new reactors. The need for power will not be addressed at this time in accordance with 10 CFR 52.18. If Exelon should apply for a construction permit or combined license at some time in the future, the issue of the need for power will be assessed at that time. The review of that application will include the development of another EIS and the opportunity to participate in another hearing.*

## **25. Comments Concerning Operational Safety Issues**

**Comment:** Clinton Nuclear Plant provides electricity in a safe, reliable and efficient manner. We take our job serious. We're a highly trained organization. Our nuclear operators are one of the highest trained organizations, utility workers in the country.

The company is proud of our safe operating record since we bought Clinton Power Station in December of 1999. We have set new safety records at the site. We take great pride in how we operate our plant, placing safety as our number one priority. We have recently applied to OSHA for them to come out and access us for a voluntary protection program star rating. It's the highest classification they give for industrial safety. And when we achieve this, we will be the fifth nuclear power plant in the country to have a Voluntary Protection Program Star Rating. And we take great pride in that.

I'm proud of the work that we do at Clinton. And I'm especially proud of the employees of Clinton. (EGCESP-S-13-4)

**Response:** *These comments provide general information regarding safety issues at the currently operating Clinton Nuclear Plant, Unit 1, provided to support the Exelon ESP*

*application. Because these comments do not relate to the environmental effects of the proposed action, they will not be assessed further.*

**Comment:** We want to make sure that we look at the consequences. As previously was mentioned Davis Bessie [Davis-Besse], Toledo, Ohio. We had seven inch reactor head, carbon steel, six and a quarter of an inch or more was melted down like a brick element right inside. The stress and strain -- everything was good. The boric acid ate the metal. What the NRC inspector was doing, everything there is okay. Can we wait for the consequences? (EGCESP-S-06-4)

**Comment:** Once the material in the three plants blow up in pieces, what it means? We are way in the plastic tangent area, way above your design modules. We are more than five to 600 percent before passing the design module with all the safety and how does it inform you the sign of crack? Are we licensed to operate in an inelastic or plastic range? No way. As soon as you stretch the rubber and one part of it become thickness, they call it strain hardening. If you put more -- the weakness, that's a weak element. It's going to break.

Three plants; Dresden Quad Cities and Byron by IONPI , which is Institute of Nuclear Power Industry, which is fed by the utilities. In their SCR 05, August 21, 2002, they reported 30 nuclear power plants have been shut down, forced outage because the material condition failed due to unanalyzed conditions. The same stuff that I predicted in my GE audit report. In a 54 design analysis of their reactor, how long they could hide it? Finally the material burst. Can we wait for the material to burst?

In a Davis Bessie [Davis-Besse], six and quarter inch metal was melted. We didn't really have three quarter of an inch of the vessel or the pressure boundary component thickness. We were just barely saved by the bell. (EGCESP-S-06-7)

**Comment:** Mechanical failures and human errors also cause leaks. As the plant ages, so does the equipment and the leaks increase generally. (EGCESP-S-14-4)

**Comment:** What is the potential for a catastrophic accident at a nuclear power plant? American public is generally aware of things like Three Mile Island but we're not generally aware of other accidents or near misses such as the Bessie Davis [Davis-Besse] reactor in Toledo, Ohio; the reactor with a hole in its head. Through complacency by owners and inspectors alike over a period of ten years, nearly a crack and a water leak led to corrosion through six inches of carbon steel in the walls of the reactor vessel and three sixteenth of an inch of stainless steel lining protected that from becoming what's been called the worse potential accident in -- narrowly missed being the worst loss of coolant accident in U.S. history. (EGCESP-S-14-7)

**Comment:** And I wanted to just observe that particularly in view of the observations that Mr. Shirani has shared with us that that might better read environmental safety reactor poses risks, undue risks for a community cited here. (EGCESP-S-19-1)

**Comment:** And the reactor today here, come back three or four years ago, I asked a question why it took two years to replace one seal that was in the Number B Unit. To me I don't think so.

I think it was pretty close to a happening at your local plant. So, if that does take place, the 65 mile radius takes in all of our major cities in the State of Illinois. (EGCESP-S-24-7)

**Comment:** Concrete integrity of storage facilities fails after the radiation has affected it. And most people don't think about the concrete integrity that's supposed to secure this waste. (EGCESP-S-28-3)

**Comment:** No matter the state of the surrounding environment of the proposed site, the fact remains that the designs, flaws, and wear and tear of the reactors should be reason enough not to build any more. (EGCESP-S-50-4)

**Response:** *The issues raised in the comments are outside the scope of the environmental review, and will not be addressed in the EIS. That said, the following are examples of how NRC addresses operational safety issues. NRC maintains resident inspectors at each reactor site. These inspectors monitor the day-to-day operations of the plant and perform inspections to ensure compliance with NRC requirements. In addition, the NRC has an operational experience program that ensures that safety issues that are found at one plant are properly addressed at the others, as appropriate. Finally, the design of any new reactors or storage facility will have already benefitted from lessons learned at existing reactors and incorporate new safety features that would be impracticable to backfit onto existing plants. The NRC will only issue a license or permit if it can conclude that there is reasonable assurance: (1) that the activities authorized by the license or permit can be conducted without endangering the health and safety of the public, and (2) that such activities will be conducted in compliance with the rules and regulations of the Commission.*

**Comment:** And one other thing I would say is that in every way we have worked to have safety first. We have, we are always training people. We're always having safety kinds of things go on. And that's what we can do. And in the time that I've been here, we have had no problems with the environment or whatever as far as the power plant. (EGCESP-S-16-5)

**Comment:** I've lived in this community since 1969 and have experienced a very environmentally safe existence, I believe. And being active on our local school board, I know at what lengths we go to for safety issues and training of our staff and our plans that we need to implement in the event of some type of emergency. (EGCESP-S-20-2)

**Comment:** I've seen firsthand the quality and the dedication of all those involved in the building and the operating of the plant. (EGCESP-S-29-1)

**Response:** *These comments provide general information in support of the Exelon ESP and safety issues and do not provide information to support the environmental review. Therefore, the comments will not be assessed further.*

## **26. Comments Concerning Other Issues**

**Comment:** Human beings and the natural world are on a collisions course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be

unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about. (EGCESP-S-09-6)

**Comment:** "Indian Point 2 to Test Safety Amid Criticism" (news article, Sept. 23) indicated that Indian Point workers would have a practice evacuation drill on Tuesday. The exercise will involve hundreds of federal, state and local representatives.

If the Federal Emergency Management Agency and the Nuclear Regulatory Commission are serious about testing the viability of evacuation plans, they should involve the entire community, not just workers.

They'll soon see that the roads around Indian Point can't handle the traffic, that most Westchester residents have no idea what to do if Indian Point melts down, that some bus drivers won't respond and that local officials and school leaders (including me) have not been adequately briefed by county officials about our responsibilities.

As hundreds of thousands of people will be involved if an evacuation is ever ordered, it's important that those who will have to evacuate get the opportunity to practice first. (EGCESP-S-09-28)

**Comment:** The undersigned organizations of the Illinois environmental community reject the priorities of the Bush/Cheney National Energy Strategy and call for a real energy strategy with the following priorities that will provide safe, cleaner, reliable and affordable energy.

1. A "20-20" plan, which would result in 20% of all electrical generation from truly renewable energy resources (wind, solar, select forms of biomass) by the year 2020, to accomplished by adoption of a national Renewables Portfolio Standard (RPS);
2. A doubling of federal support for energy efficiency and conservation;
3. No new subsidies for fossil fuel and nuclear power, and a phase out of existing subsidies by the year 2020;
4. Actual U.S. CO<sub>2</sub> greenhouse gas reductions of 7% from 1990 levels should be achieved by 2010.
5. Emission reductions and caps on the 4 major fossil fuel pollutants: NO<sub>x</sub>, SO<sub>2</sub>, mercury, and CO<sub>2</sub> by 2007, and retrofit or closure of "grandfathered" coal plants that fail to meet modern emission standards by the year 2007,
6. No new nuclear plant construction;
7. Increasing vehicle fleet mileage for cars and light trucks to 40 mpg by 2010, and 65 mpg by 2020;
8. No drilling for oil or natural gas on sensitive public lands such as Arctic National Wildlife Refuge, and on or under the Great Lakes,

9. No renewal of current operating licenses for nuclear plants prior to the year 2020.

For the State of Illinois:

1. A "20-20" plan, which would result in 20% of all electrical generation from truly renewable energy resources (wind, solar, select forms of biomass) by the year 2020, to accomplished by adoption of a national Renewables Portfolio Standard (RPS);
2. A doubling of State support for energy efficiency and conservation;
3. No new subsidies for fossil fuel and nuclear power, and a phase out of existing subsidies by the year 2020;
4. Actual U.S. CO<sub>2</sub> greenhouse gas reductions of 7% from 1990 levels should be achieved by 2010.
5. Emission reductions and caps on the 4 major fossil fuel pollutants: NO<sub>x</sub>, SO<sub>2</sub>, mercury, and CO<sub>2</sub> by 2007, and retrofit or closure of "grandfathered" coal plants that fail to meet modern emission standards by the year 2007,
6. No new nuclear plant construction;
7. Increasing vehicle fleet mileage for cars and light trucks to 40 mpg by 2010, and 65 mpg by 2020;
8. No drilling for oil or natural gas on, in or under Lake Michigan. (EGCESP-S-09-29)

**Comment:** (This is from a generic, unsigned form letter to President Bush) I support an energy policy that

1. Provides us with 20% renewable energy electricity generation by the year 2020,
2. At a minimum doubles DOE's budget for energy efficient technologies and programs;
3. Requires all coal plants to meet modern clean air emission standards, or be shut down;
4. Prohibits the licensing of new or re-licensing of old nuclear plants until the "20-20" goal for renewables is achieved; and ends federal subsidies to nuclear power, polluting coal and oil,
5. Raises car and light truck mileage standards to 40 mpg by 2010, and 65 mpg by 2020,
6. Fights global warming with renewables and efficiency.

Expanding nuclear power means more radioactive waste, more accidents, higher costs, an proliferation of nuclear materials and weapons. Your nuclear power budget plans will surely take funds away from renewable energy resources and energy efficiency, insuring they will

never grow. We must solve the energy and global warming problems without worsening our nuclear problems. (EGCESP-S-09-30)

**Comment:** The major environmental problems confronting the planet today-global warming, acid rain, ozone depletion, nuclear waste disposal, deforestation and desertification, nuclear proliferation, urban smog, just to name a few - all have their root cause in or are made worse by our unwise, unrestrained consumption of ever - increasing amounts of energy.

The denial of our responsibility for these environmental conditions is made easier by our uncritical acceptance of the "bigger pump" mentality as a techno-fix "solution" to our energy and environmental problems, regardless of the resulting environmental consequences. One need only read nuclear utility ads touting nuclear power as a "solution" to global warming, or hear the restated intention to open Alaska's Arctic Wildlife refuge for oil exploration even in the wake of the Exxon Valdez and Siberian pipeline disasters to see this mentality exists.

We mistakenly equate our energy demands with our energy needs, and then erroneously conclude that we need to build "bigger pumps" to produce more energy to meet our supposedly justifiable, ever-increasing energy demands. The legitimacy of such demands is closer to that of spoiled brats than people truly short of energy.

The fact is that we Americans are energy addicts. We consume-and waste-far more energy than any other people on Earth. And, like good pushers do, the utilities with their "bigger pumps" remain ever-ready to give us our energy fix, at a great profit to them and their investors, and with great damage to the environment on our behalf.

Carbon dioxide and other Greenhouse gases are no more "responsible" for causing global warming and its disastrous consequences than cyanide was "responsible" for causing the Holocaust. Only humans - adult, mature, rational people - can assume responsibility for actions and their results.

We must assume direct responsibility for the wasteful energy system we've set up and use; then change it in ways that begin to use energy more wisely and sparingly, and that are more environmentally benign. Such changes call for reducing our present level of energy (ab)use; increased use of conservation; wider application of energy efficiency; and appropriate use of cogeneration, renewable and alternative energy resources. Expanded use of these energy sources will allow us to meet appropriate end-use energy needs, without the environmental havoc wreaked by construction and use of "bigger pumps," whether nuclear or coal.

We can rationally and voluntarily choose to implement these changes in how we view and use energy; or we can passively let the Planet force these and possibly more draconian changes on us through more severe environmental consequences. The choice is ours to make; and not to decide is to decide.

Building "bigger pumps" will neither solve our future energy problems, nor lessen the environmental consequences of energy use. The implacable Laws of Thermodynamics tell us this, even though we continue to act as if they didn't exist. "Bigger Pumps" solutions will, however, divert valuable attention and scarce, infinite resources away from fixing our leaking "energy buckets" and other such energy end-use problems.

Only by using energy in a way as if common sense mattered can we truly begin to meet the future energy needs of people across the Planet, without destroying the environment - and ourselves - in the process.

Not one new nuclear power plant has been ordered and subsequently completed in this country since 1973. Some of the new plants under construction may never produce any electricity, or if they do so, will do it at a cost greater than that of burning oil at prices experienced during the Arab Oil Embargo (in fact, oil priced at \$160 per barrel!)

There may come a time when additional, large-scale generating capacity may be needed again. Given the cheaper, less-polluting, and more readily implemented alternatives described here, that day could be well into the next century. One thing is certain. Given the energy options outlined here, no new, large-scale nuclear power plants are needed in this country, now or in the near future.

Cogeneration is the process whereby waste heat generated in a mechanical or industrial process is reclaimed and used either to generate electricity directly (by making steam to drive a turbine), or used to reduce the need to use electricity to perform a job (such as preheating water).

The amount of electricity generated through the use of cogeneration in this county has risen from 4% in 1980, to 7% in 1987, and is expected to climb to 15% by 1995. Studies conducted by the State of Illinois and nuclear utility giant Commonwealth Edison indicate an untapped cogeneration potential exists in Illinois ranging in size from 3 to 6 nuclear reactors worth of power.

Numerous large industrial plants and institutions in the Chicago area, such as the NALCO Chemical Co. of Naperville, St. Francis Hospital in Evanston, and the Illinois Institute of Technology, for example, currently meet their electrical needs with cogeneration systems. These institutions no longer need electricity from nuclear- or coal-fired plants. NALCO recovered its initial \$4.9 million investment in cogeneration equipment in 4 years, and now enjoys tremendous energy savings, making the company stronger and more competitive.

The potential for energy conservation in this country is enormous - especially for electricity. Three studies performed by major government and research organizations between 1981 and 1986 concluded that the U.S. has the potential to conserve the energy equivalent of between 189 and 220 nuclear power plants. By comparison, the United States currently operates only 108 nuclear power plants.

Conservation methods are cheaper than building and operating nuclear plants, more flexible in meeting electrical needs, and far quicker to implement. Conservation programs have a far greater effect on reducing air pollution, acid rain, and foreign oil imports than do nuclear power plants. Further - and most significantly - conservation doesn't create long-lived radioactive waste products requiring perpetual care as do nuclear plants.

Since the Arab Oil Embargo of 1973, many Americans have learned that they can willingly consume less electricity and energy - without a reduction in their standard of living.

Some experts believe we waste between 25-40% of all of the electricity we generate. Clearly, we do not need to build more multi-billion dollar nuclear power plants until we first plug this major leak in our energy bucket.

However, this country still does not know how much energy - especially electricity - it really needs, as opposed to what it wants to consume addictively. We need a national energy policy that will make assessing our actual energy needs its number one priority, before building or opening even one more large-scale power plant of any type, coal or nuclear.

To meet future electrical needs, any new generating capacity will need to meet several criteria: it must have minimal environmental impact; it must be reliable and economical; it should utilize the energy resources found in the region in which it is located; it should be flexible enough to meet variations in demand needs, whether they come from the hot peak days of August, maintenance outages, breakthroughs in technology, or unforeseen events like oil embargoes; it should be quick to construct and bring on line; the sources of energy should be local and renewable, and not subject to foreign intervention.

Nuclear power meets none of these criteria. Alternative and renewable sources of energy meet all of these criteria today.

It has been said that the costs of alternatives compare poorly with nuclear power. However, when one figures in costs that current estimates for nuclear power leave out - such as the cost for disposal of nuclear waste, \$97 billion in research and tax subsidies granted the nuclear industry since 1950, the \$9 billion government subsidization of nuclear fuel production, inadequate insurance protection for the public in case of nuclear accidents; for example - the gap in cost between nuclear power and some renewables closes quickly. Increased usage of alternatives will bring down the costs even further through economies of scale.

Alternative and renewable sources of electricity production - passive and active solar power, wind and tidal power, biomass generation, geothermal and small hydro power - exist and are being used today all over the country, including Illinois, which for example has a currently available yet untapped biomass (energy from agricultural wastes) potential equal to the electricity production of 6 nuclear reactors, according to a 1993 study by the Union of Concerned Scientists. Taken in conjunction with conservation, increased efficiency and cogeneration, they create a national energy system that meets all of the desirable criteria for an energy source that nuclear power does not and cannot. And they provide one additional benefit - they allow the users, not the big power companies, to control their own energy future.

Because we have been a country addicted to wasting our resources for so long, we must learn to utilize the electricity we produce more wisely. Greater electrical efficiency can be attained by using appliances; electric motors, and lighting available today that are more energy efficient. The equivalent power output of 22 nuclear power plants could be saved by the year 2000 through the implementation of these efficiency techniques. A 1990 report from the internationally respected Electric Power Research Institute (EPRI) concluded that, "Use of energy-saving technologies would result in a saving [by the year 2000]...of 24 to 44% of electric consumption."

Recycling what formerly was considered waste materials (such as paper, glass, and aluminum) not only saves the raw materials themselves, but the electrical energy used to convert these raw materials into finished products. (EGCESP-S-09-33)

**Response:** *These comments provide general information and are not related to environmental impacts related to the Exelon ESP, and will not be assessed further.*

## **27. Comments Concerning NRC's Administrative Process**

**Comment:** Inadequacy of the Regulators

1. Post-9/11 response of NRC was just short of criminal
2. NRC closed website for a time; re-opened with greatly reduced contents
3. NRC presiding over Davis-Besse flap of reactor hardware deterioration; may exist in some Illinois reactors
4. IDNS is fighting distribution of KI pills in EPZ's
5. Information flow to public increasingly restricted (EGCESP-S-09-32)

**Comment:** The citizens demand the NRC adhere to the very safety guidelines as written for the nuclear industry. (EGCESP-S-34-7)

**Comment:** When I called your toll-free number I asked the woman who answered if the NRC was on the public's side in this and she answered "no." I said that as a government agency, surely it was your responsibility to serve the public's interest. She said the agency was on no one's side and only dealt in "facts." She said it was only a matter of semantics. I answered back that I wished that was all it was. But I fear its not. (EGCESP-S-41-5)

**Comment:** But yet, I have to have faith in the NRC. Don't prove me wrong. Do take extreme measures to safeguard our county. (EGCESP-S-58-1)

**Response:** *The NRC will review the ESP application against its regulations that are intended to protect public health and safety and the environment. These comments provide no information related to the scope of this environmental review and, therefore, will not be considered further.*

**Comment:** Consider how tonight's so called public meeting has been organized. No public announcement about this meeting appeared in local papers till yesterday, just 24 hours before this meeting. Given the December 18th is just prior to the holiday season, it would have made more sense for this meeting to have been held in January or at least seven to ten days notice being given about its date so that busy families could plan so that they might make an appearance here tonight.

However, given the NRC's penchant for less than plain dealing, it is no surprise that this gathering falls on one of the darkest nights of the year, a date just three days to the winter

solstice. As we sit in this cramped basement room with a heavy winter darkness outside, we would do well to consider how the NRC selects its dates and time for a meeting designed to bring citizens' concerns to the light. (EGCESP-S-34-5)

**Comment:** I enclose a copy of my letter to the editor of the Pantagraph published on January 4. It was my small attempt to let the public know that this was our chance to be heard on this issue. You, of course, did next to nothing to let the public know about this. (EGCESP-S-41-4)

**Response:** *Meeting notices were placed in The Clinton Daily Journal (Clinton, Illinois) on December 5, 15, and 18, 2003, The Pantagraph (Bloomington, Illinois) on December 7 and 14, 2003, The Herald & Review (Decatur, Illinois) on December 7 and 14, 2003, and The News Gazette (Champaign, Illinois) on December 7 and 14, 2003, in addition to press releases and Federal Register notices made by the NRC. In addition, flyers announcing the meeting were put up on local public bulletin boards 2 weeks before the meeting. The NRC chose the meeting date to accommodate as many potential commenters as possible. Scoping comments submitted by letter or e-mail were also accepted. There will also be a future opportunity to comment orally and in writing on the draft EIS.*

**Comment:** Mr. Cameron moderated the meeting so that those FOR the Clinton Reactor 2 were given distinct advantage. He initially listed even local political persons to speak, starting with the mayor. Were they even registered as speakers? He put prime speakers AGAINST the reactor way down the list (late in the evening). He chose for the closing speaker one such person who in summary nullified all preceding CON arguments because they didn't have nuclear expertise he did. Most destroying of all, major presentation time was given to Clinton Reactor officials and government officials who are FOR nuclear plants. There was NOT ANY presentations by experts on the CON side. Totally unfair. There were experts in the room that should have been part of the presentations. (EGCESP-S-54-1)

**Response:** *All members of the public who wished to speak at the public meetings were given the opportunity to do so. These comments provide general information and are not related to environmental impacts related to the Exelon ESP, and will not be evaluated further.*

## **28. Comments Expressing Support for Nuclear Power**

**Comment:** What I've seen during the years is an industry that continues to focus on improvement, continues to focus on improving safety and continues to find better and more efficient ways to run our business. I know that how we do our job affects you. Us keeping power flowing, keeping power to your houses, to your businesses, to your churches affect the quality of life that you have come to know and we have come to know in this country. (EGCESP-S-13-1)

**Comment:** I lived for the better part of six years within 120 feet of an operating reactor. I wouldn't have done that, I wouldn't have risked my life if I thought my life was at a risk. But that comes from knowing a great deal about the subject. (EGCESP-S-37-2)

**Comment:** I can attest firsthand that this technology can be managed safely. I have learned this is a technology not to be feared, but certainly to be respected. (EGCESP-S-37-8)

*Note: This comment was provided in writing and is in addition to the comments taken from the transcript.*

**Response:** *These comments provide general information in support of nuclear power and will not be assessed further.*

## **29. Comments Expressing Opposition to Nuclear Power**

**Comment:** Dr. David Lockbaum [Lochbaum] of the UCS, the Union of Concerned Scientists, recently wrote a letter that was highly critical of the NRC. That letter was co-signed by many people and organizations including the Student Environmental Action Coalition of which I'm involved. Their warning document presents the big and dangerous picture that our world faces. (EGCESP-S-09-2)

**Comment:** I have a few copies of an editorial that was published recently in Illinois State University Newspaper, the Daily Vadette. In it the young writer critiques the society's nuclear policy. She uses strong words as she questions the common sense, the decency and the sanity of that policy.

I believe that the anger of the young generation will inevitably grow as they realize how they and their future and their world have been betrayed by the power that be. Their anger is righteous and that young writer's editorial is just a glimpse and a warning of what is to come as the horrible truth becomes more widely known. Take this moment very seriously. Again, we all have much at stake. (EGCESP-S-09-4)

**Comment:** But the thing that I'm most concerned about is if we put another reactor here we're adding to what I've learned back years ago when I came early out of World War and went to work at Pillvalue Hershey, a corporation in Decatur in Illinois where we made a portion of the atomic bomb. And what is it today? We created a monster. We'll never be able to let go of the tail. (EGCESP-S-24-6)

**Comment:** It is true that there are other nuclear reactors sited even closer to Chicago but those are mistakes made by the Atomic Energy Commission or the Nuclear Regulatory Commission in the past. Hopefully, the NRC has learned from these mistakes and will no longer site reactors near major metropolitan centers. (EGCESP-S-26-3)

**Comment:** Contrary to the lies pushed at the public by the nuclear power industry and the NRC, nuclear power is not clean and it is not safe. The nuclear power industry has been given its chance and has failed. It has failed to safely produce energy that is too cheap to meter, as was originally promised. Even if it did produce economical energy, it would be at an unparallel risk to our public health and national security. (EGCESP-S-26-7)

**Comment:** I wrote that I had seen anger in the young people's eyes as they realized what is being done to them and their world. That is true but there is more. I have also seen confusion,

hurt and fear in their eyes as well. They don't understand why one generation would do that to another. (EGCESP-S-41-1)

**Comment:** We do not want an additional Nuclear power plant in Central Illinois. As a matter of fact we would be fine if the existing one shut down, we might all live longer. (EGCESP-S-45-1)

**Comment:** All in all, nuclear power needs to be phased out, not expanded. Our very lives and the future of humankind depend on it. Let's use our intelligence to start using the safe energy alternatives that exist today to have our great lifestyle without paying the Ultimate price for it. (EGCESP-S-47-7)

**Response:** *These comments provide general information in opposition to nuclear power and will not be assessed further.*

## Summary

The preparation of the EIS for the EGC ESP application will take into account all the relevant environmental issues identified above that were raised during the scoping process. The draft EIS will be made available for public comment. Interested Federal, Tribal, State, and local government agencies, local organizations, and members of the public will be given the opportunity to provide comments on that draft document to be considered during the development of the final EIS.