

December 14, 2005

Mr. Daniel J. Malone
Site Vice President
Palisades Nuclear Plant
27780 Blue Star Highway
Covert, MI 49043

SUBJECT: ISSUANCE OF ENVIRONMENTAL SCOPING SUMMARY REPORT
ASSOCIATED WITH THE STAFF'S REVIEW OF THE APPLICATION BY
NUCLEAR MANAGEMENT COMPANY, LLC, FOR RENEWAL OF THE
OPERATING LICENSE FOR PALISADES NUCLEAR PLANT

Dear Mr. Malone:

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a scoping process from June 24, 2005, through August 22, 2005, to determine the scope of the NRC staff's environmental review of the application for renewal of the operating license for Palisades Nuclear Plant (Palisades). As part of the scoping process, the NRC staff held two public environmental scoping meetings in South Haven, Michigan on July 28, 2005, to solicit public input regarding the scope of the review. The scoping process is the first step in the development of a plant-specific supplement to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS), for Palisades.

The NRC staff has prepared the enclosed Environmental Scoping Summary Report. This report identifies comments received at the July 28, 2005, license renewal environmental scoping meetings, comments provided by letter and electronic mail. In accordance with Title 10 of the *Code of Federal Regulations* Section 51.29(b), you are being provided a copy of the scoping summary report. The transcripts of the meetings can be found as an attachment to the meeting summary issued on September 21, 2005. The meeting summary is available for public inspection in the NRC Public Document Room (PDR) located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland or electronically from the Publicly Available Records component of NRC's document management system (ADAMS) under Accession Number ML052630412. ADAMS is accessible from the NRC's Website at <http://www.nrc.gov/reading-rm/adams.html>. This site provides access to the NRC's Public Electronic Reading Room link (Note that the URL is case-sensitive). Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC's PDR Reference staff at 1-800-397-4209 or 301-415-4737, or by e-mail addressed to pdr@nrc.gov.

D. Malone

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The next step in the environmental review process is the issuance of the draft supplement to the GEIS, scheduled for February 2006. Notice of the availability of the draft supplement to the GEIS and the procedures for providing comments will be published in an upcoming *Federal Register* notice. If there are any questions concerning this matter, please contact me at 301-415-1312 or e-mail RGS@nrc.gov.

Sincerely,

/RA/

Robert G. Schaaf, Senior Project Manager
Environmental Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No.: 50-255

Enclosure: As stated

cc w/encl: See next page

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Office of Nuclear Reactor Regulation

Docket No.: 50-255

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**Environmental Impact Statement
Scoping Process**

Summary Report

**Palisades Nuclear Plant
Van Buren County, Michigan**

November 2005



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

Introduction

On March 31, 2005, the U.S. Nuclear Regulatory Commission (NRC) received an application from Nuclear Management Company, LLC (NMC) dated March 22, 2005, for renewal of the operating license of Palisades Nuclear Plant (Palisades). The Palisades unit is located in Van Buren County, Michigan. As part of the application, NMC submitted an Environmental Report (ER) prepared in accordance with the requirements of Title 10, Part 51, of the *Code of Federal Regulations* (10 CFR Part 51). Part 51 of 10 CFR contains the NRC requirements for implementing the National Environmental Policy Act (NEPA) of 1969 and the implementing regulations promulgated by the Council on Environmental Quality (CEQ). Section 51.53 of 10 CFR Part 51 outlines requirements for preparation and submittal of ERs to the NRC.

Section 51.53(c)(3) was based upon the findings documented in NUREG-1437, *Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants*, (GEIS). The GEIS, in which the staff identified and evaluated the environmental impacts associated with license renewal, was first issued as a draft for public comment. The staff received input from Federal and State agencies, public organizations, and private citizens before developing the final document. As a result of the assessments in the GEIS, a number of impacts were determined to be generic to all nuclear power plants. These were designated as Category 1 impacts. An applicant for license renewal may adopt the conclusions contained in the GEIS for Category 1 impacts, absent new and significant information that may cause the conclusions to fall outside those of the GEIS. Category 2 impacts are those impacts that have been determined to be plant-specific and are required to be evaluated in the applicant's ER.

The Commission determined that the NRC does not have a role in energy-planning decision-making for existing plants; decisions for existing plants should be left to State regulators and utility officials. Therefore, an applicant for license renewal 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 for the facility that is within the scope of the generic determination in 10 CFR 51.23(a) and in accordance with 10 CFR 51.23(b).

On June 27, 2005, the NRC published a Notice of Intent in the *Federal Register* (Volume 70, page 36967) to notify the public of the staff's intent to prepare a plant-specific supplement to the GEIS to support the renewal application for the Palisades operating license. The plant-specific supplement to the GEIS will be prepared in accordance with NEPA, CEQ guidelines, and 10 CFR Part 51. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the *Federal Register* Notice. The NRC invited the applicant; Federal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or by submitting written suggestions and comments no later than August 22, 2005.

The scoping process included two public scoping meetings that were held at Lake Michigan College, South Haven, Michigan, on July 28, 2005. The NRC issued press releases and distributed flyers locally. Approximately 65 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. Following the NRC's prepared statements, the meetings were opened for public comments. Nineteen attendees provided oral comments that were recorded and transcribed by a certified court reporter. The transcripts of the meetings can be found as an attachment to the meeting summary. The meeting summary is available electronically for public

inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Document Access and Management System (ADAMS) under accession number ML052630412. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room). (Note that the URL is case-sensitive.)

The scoping process provides an opportunity for the public to participate in identifying issues to be addressed in the plant-specific supplement to the GEIS and to highlight its concerns and issues. The Notice of Intent identified the following objectives of the scoping process:

- Define the proposed action,
- Determine the scope of the supplement to the GEIS and identify significant issues to be analyzed in depth,
- Identify and eliminate peripheral issues,
- Identify any environmental assessments and other environmental impact statements being prepared that are related to the supplement to the GEIS,
- Identify other environmental review and consultation requirements,
- Indicate the schedule for preparation of the supplement to the GEIS,
- Identify any cooperating agencies, and
- Describe how the supplement to the GEIS will be prepared.

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. In addition to the comments received during the public meetings, eight comment letters and copies of two news articles were received by the NRC in response to the Notice of Intent. All comments and suggestions received orally during the scoping meetings or in writing were considered. Each set of comments from a given commenter was given a unique 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. Several commenters submitted comments through multiple sources (e.g., letter and afternoon or evening scoping meetings).

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

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 PS (short for Palisades Nuclear Plant scoping). For oral comments, the individuals are listed in the order in which they spoke at the public meeting. Accession numbers indicate the location of the written comments in ADAMS.

The subject areas the comments were grouped into are as follows:

1. License Renewal Process
2. Support of License Renewal at Palisades Nuclear Plant
3. Opposition to License Renewal at Palisades Nuclear Plant
4. Opposition to Nuclear Power
5. Aquatic Ecology
6. Threatened and Endangered Species
7. Surface-Water Quality, Hydrology, and Use
8. Human Health
9. Socioeconomics
10. Postulated Accidents
11. Uranium Fuel Cycle and Waste Management
12. Alternative Energy Sources
13. Issues Outside the Scope of the Environmental Review for License Renewal: Emergency Response and Preparedness, Operational Safety, Safeguards and Security, Aging Management, Pressurized Thermal Shock, Decommissioning Date, Dry Cask Storage, Separate Proceedings (Yucca Mountain), Process, Need for Power, Cost-Benefit Analysis

Each comment is presented 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 in which no new environmental information was provided by the commenter, no further evaluation will be performed.

The preparation of the plant-specific supplement to the GEIS (which is the SEIS) will take into account all the relevant issues raised during the scoping process. The SEIS will address both Category 1 and 2 issues, along with any new information identified as a result of scoping. The SEIS will rely on conclusions supported by information in the GEIS for Category 1 issues and will include the analysis of Category 2 issues and any new and significant information. The draft plant-specific supplement to the GEIS will be made available for public comment. The comment period will offer the next opportunity for the applicant; interested Federal, 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 SEIS will be considered in the preparation of the final SEIS. The final SEIS, along with the staff's Safety Evaluation Report, will provide much of the basis for the NRC's decision on the Palisades license renewal application.

TABLE 1 Individuals Providing Comments During Scoping Comment Period

| Commenter ID | Commenter | Affiliation (If Stated) | Comment Source^(a) |
|---------------------|-------------------------|--|-------------------------------------|
| A | Ken Richards | | Afternoon Scoping Meeting |
| B | Kevin Kamps | Nuclear Information and Resource Service | Afternoon Scoping Meeting |
| C | Barbara Geisler | | Afternoon Scoping Meeting |
| D | Corinne Carey | Don't Waste Michigan | Afternoon Scoping Meeting |
| E | Dale Lewis | Mayor, South Haven | Afternoon Scoping Meeting |
| F | Tom Tanzlos | County Commssioner: First District of Van Buren County | Afternoon Scoping Meeting |
| G | Paul Harden | Site Vice President of Palisades | Afternoon Scoping Meeting |
| H | Nancy Whaley | | Afternoon Scoping Meeting |
| I | Leroy Wolins | | Afternoon Scoping Meeting |
| J | Chuck Jordan | | Afternoon Scoping Meeting |
| K | Michael Keegan | | Evening Scoping Meeting |
| L | Gary Karch | | Evening Scoping Meeting |
| M | Kathy Barnes | | Evening Scoping Meeting |
| N | Corinne Carey | Don't Waste Michigan | Evening Scoping Meeting |
| O | Maynard Kaufman | | Evening Scoping Meeting |
| P | Ken Richards | | Evening Scoping Meeting |
| Q | Kevin Kamps | Nuclear Information and Resource Service | Evening Scoping Meeting |
| R | Ross Stein | Supervisor, South Haven Charter Township | Evening Scoping Meeting |
| S | Paul Harden | Site Vice President of Palisades | Evening Scoping Meeting |
| T | Larry King | Greater South Haven Chamber of Commerce | Evening Scoping Meeting |
| U | Elizabeth Anderson | | Evening Scoping Meeting |
| V | Marilyn Miller | | Evening Scoping Meeting |
| W | Wayne Rendell | Supervisor, Covert Township | Evening Scoping Meeting |
| X | Tonya Schuitmaker | | Letter (ML052420495) |
| Y | Nancy Ann Whaley | Supervisor, Geneva Township | Letter (ML052420497) |
| Z | Wayne Rendell | Supervisor, Covert Township | Letter (ML052420503) |
| AA | Swami Tapasanarda | | Letter (ML052420506) |
| BB | Murielle and John Clark | | Letter (ML052510389) |
| CC | Gary Karch | | Letter (ML052510391) |
| DD | Kathryn Barnes | | Letter (ML052510393) |
| EE | Kevin Kamps | Nuclear Information and Resource Service | Letter (ML052510468) |
| FF | Kevin Kamps | Nuclear Information and Resource Service | Letter (ML052420502) |
| GG | Kenneth Richards | | Letter (ML052420501) |

(a) The afternoon and evening transcripts can be found in ADAMS under accession numbers ML052630432 and ML052630449, respectively.

Palisades Nuclear Plant (Palisades) Public Scoping Meeting Comments and Responses

The comments and suggestions received as part of the scoping process are discussed below. 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.

1. Comments Concerning License Renewal and Its Processes

Comment: I'm glad you are asking for public input. And it may be that NRC meetings are of a different sort. Maybe hearings that I have attended in the past have needed to seem almost closed. But I'm reading from someone in your system who says, I am truly embarrassed by the way the public is systematically excluded from the regulatory process. It reminds me of the old Soviet bloc countries when they conducted elections with only one name on the ballot. The nuclear industry is carrying a sign in one hand proclaiming that nuclear power is a solution to the global warming problem. It's other hand is locking the door on public participation in the regulatory process. Now today so far that doesn't seem to be true. So I'm hoping that there's been a change within the NRC and those plants that it is in a sense responsible for, and that, not just at this meeting, but at all meetings, comments will be taken seriously as a part of a democratic planning process. (PS-C-8)

Comment: I'd like to commend the NRC for having these meetings at times that people could come whether during the day or in the evening. I think that is a change that's very good. (PS-J-1)

Comment: I really can't truly say that I feel NRC or the company representatives are truly advocates of the public. And, I understand there are some areas that do have such a commission or an individual, I think Wisconsin has something close to that, if anybody can correct me. I understand that Nevada has something in that line, where the public truly feels that, that they are truly represented. And, I just don't think that that's our feeling here. Even though you're nice guys, I don't; I'm not questioning that you're nice guys. I'm just feeling that the system needs more to be viable. (PS-N-18)

Comment: A process that appears designed to intentionally disenfranchise a population with which it is supposed to promote dialogue can only be looked at with skepticism and must be considered a ruse and a sham. Although the model as presented for public comment regarding the request for a 20-year license extension for the Palisades Nuclear Plant in Van Buren County, Michigan, meets guidelines as established by the NRC, it provides little opportunity and draconian deadlines for true citizen participation to exist. Such restrictions may have been dismissed by communities in which other license renewals have been requested and approved, but I submit that Southwest Michigan holds itself to higher standards and wishes to challenge the industry paradigm and demand a more reasonable and humane response to this license renewal process than the flawed one that has been foisted upon us.

Current standards only allow for easy participation from persons living within the industry-designated 10-mile radius emergency planning zone. Obviously radiation travels far greater distances than that, and even the extended 50-mile radius does not realistically encompass the distance a radiation release can travel. Meetings have been scheduled only in the South Haven area with limited publicity and at times that impede a working public's ability to attend. These

dates and locations may be convenient for Palisades representatives and NRC staff but not to residents in the greater area affected by the plant's existence. For example, the next public meeting in which these and other comments submitted by today's deadline will be discussed is scheduled for the Friday before Labor Day. This insults the public, inhibits participation by interested citizens, and denigrates the integrity of the process.

Materials pertinent to the license currently available only at the South Haven library should be made available in a majority of libraries located within the 50-mile radius. The whole process needs to be expanded to include public meetings and comment opportunities in all communities within the entire 50-mile radius who wish to request them. If the plant owners and managers have nothing to hide and take pride in their operation, then they should have no reservations about taking their meetings on the road and extending the process to a more reasoned pace. And if the NRC believes in the integrity of their process, they should likewise be up to this challenge. It is 6 years before the current license expires. There is no need to rush through the process. In fact, a more lengthy approach that is truly inclusive of citizen participation from affected communities should be encouraged. (PS-CC-1)

Response: *The comments are in regard to license renewal and its processes in general. The Commission has established a process, by rule, for the environmental and safety reviews to be conducted to review a license renewal application. The development of the Commission's regulations governing the license renewal process was subject to public review and comment. The comments will not be evaluated further.*

Comment: On this August 22nd deadline. When does the clock start ticking on that, and I guess why such a short deadline given that today is July 27th? (PS-B-2)

Comment: And I would ask that the August 22nd deadline for comments be extended because this really is the first opportunity for people to learn about this environmental review process. So that doesn't leave much time for people to get up to speed to read these very thick documents and to submit comments. And I guess I'd just like to end by saying that there's a growing coalition of individuals and organizations in this area who fully intend on intervening against the license extension at Palisades. And we would, perhaps this isn't the exact correct forum, but we would express a request for an extension to that August 8th deadline as well, given the limited resources of these nonprofit groups and individuals. (PS-B-19)

Comment: And, the last thing that I'll bring up is, I have to choose here. I would again reemphasize the importance of extending the deadlines, because we're 5 years out right now from the year 2011 when this license expires. So, the question is, what's the rush? Why are these deadlines so rushed? And, also, it's a 20-year license extension. So, we should have more than just 60 days to comment on 20 years of impacts. But, of course, as Mr. Karch said, it's a lot longer than 20 years. The waste is going to be here forever. (PS-Q-13)

Comment: The public is not given enough notification about the meetings, and the meetings are few and poorly scheduled for times most cannot attend. The public is expected to offer comments on the EIS and scope and screening, etcetera, without adequate preparation. Although the current license is valid through 2011, at this time, 2005, an extension is being sought and the time allotted for public comment, debate, and even awareness is under pressure and time constraints. What is the rush? I would like to request an extension beyond August 22 for public comment on the scope of the Palisades-specific supplement to the generic environmental impact statement for a much later date after the public is aware of such documentation and such is offered. (PS-DD-4)

Comment: There are a multitude of environmental concerns in addition to those raised above that we will like to address, but, lacking adequate time to digest and respond to voluminous NRC documents, have been unable to do so. By letter dated August 19, 2005, to Andrew L. Bates, Acting Secretary, Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C., 20555-0001, a request was made for a 60-day extension. Again, we respectfully request that NRC grant an additional 60 days to the concerned citizens of Michigan, Indiana, and Illinois, and the organizations which represent them, in which to file scoping comments on NRC's Environmental Review of the Palisades nuclear power plant 20-year license extension proposal. (PS-EE-40)

Response: *The comments request an extension to the scoping comment period. The U.S. Nuclear Regulatory Commission (NRC) established the time period for comments on the scope of the environmental review for license renewal to balance the Commission's goal of ensuring openness in the regulatory processes, with its goal of ensuring that the NRC's actions are effective, efficient, realistic, and timely. The requests did not provide a sufficient basis for an extension to the established comment period. The comments will not be evaluated further.*

The regulations permit a nuclear power plant licensee to apply to the NRC to renew a license as early as 20 years before expiration of the current license. The NRC staff has determined that 20 years of operating experience is sufficient to assess aging and environmental issues at the site. A major consideration for seeking license renewal so far in advance of the expiration date of the current license is that it can take up to about 10 years to design and construct major new generating facilities, and long lead times are required by energy-planning decision makers.

Comment: I'd also like to point out that this entire licensing or license extension proceeding is premature because the Nuclear Regulatory Commission is reevaluating its pressurized thermal shock rule. And this revision is not complete. So, this proceeding should be postponed until after that proceeding is complete. And, I need clarification from the NRC as to whether the old rule applies at Palisades or the new rule is going to apply at Palisades. And, for that reason alone, this entire proceeding should be postponed. That's another reason for the deadlines to be extended. (PS-Q-5)

Response: *Nuclear plant licensees are required to comply with all applicable currently effective NRC regulations, including the Pressurized Thermal Shock (PTS) Rule. In the event that the PTS Rule is revised, Nuclear Management Company, LLC (NMC), the Palisades licensee, will be expected to comply with the new rule in accordance with the effective date and any implementation date provided for in the revised rule. The comment will not be evaluated further.*

Comment: Further, I would ask as I have at public meetings, that certain essential elements not be excluded from evaluation.

4. The actual and complete analysis of the plant by a scientific and independent agency, and not by Palisades or its subsidiaries, and an analysis not dependent on documentation by Palisades, but based on the actual scientific evaluation of the current status of the facility, including, but not limited to, embrittlement. (PS-DD-7)

Response: *The NRC is an independent agency established by the Energy Reorganization Act of 1974 to regulate civilian use of nuclear materials. The NRC's mission is to regulate the nation's civilian use of by-product, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to*

protect the environment. As part of this mission, the NRC is responsible for the review and issuance of initial licenses and renewed licenses for nuclear power facilities.

The Advisory Committee on Reactor Safeguards (ACRS) is an advisory committee mandated by the Atomic Energy Act of 1954, as amended, under the Federal Advisory Committee Act (FACA). The ACRS is independent of the NRC staff and reports directly to the Commission, which appoints its members. The operational practices of the ACRS are governed by the provisions of the FACA. The ACRS is composed of recognized technical experts in their fields. It is structured so that experts representing many technical perspectives can provide independent advice, which can be factored into the Commission's decision-making process. Most Committee meetings are open to the public, and any member of the public may request an opportunity to make an oral statement during the committee meeting.

During the license renewal process, the ACRS acts as an independent third-party oversight group that reviews and makes recommendations to the Commission on the safety aspects of renewal applications. The ACRS mandate does not include National Environmental Policy Act (NEPA) reviews. The comment will not be evaluated further.

Comment: I'm looking forward to intervening. But, on the schedule that you put up with all the dates, perfunctory meetings and niceties, I didn't see a scheduling for the ASLB in there. And, what happens once we intervene? And, what happens to this process then? (PS-K-5)

Response: *The Atomic Safety and Licensing Board establishes schedules for its proceedings independently of the NRC staff's safety and environmental reviews. The schedule established by the board is dependent upon the filing of petitions and motions by interested parties.*

The schedule initially established by the staff for the safety and environmental reviews presumes that a hearing will be held. This schedule will be revised as appropriate during the review based on the board's decisions on admissibility of any contentions filed. The comment will not be evaluated further.

Comment: Relating to the EIS, is an Environmental Impact Statement required, or are you going to be looking at an environmental assessment with a FONSI, or are we going to have a full EIS? (PS-K-2)

Response: *The Commission has decided that the NRC will prepare a site-specific supplement (SEIS) to the generic environmental impact statement on license renewal (GEIS; NUREG-1437) for each license renewal application. This decision was made to ensure that the public had the highest level of participation in and confidence about the NRC's action on a license renewal application. The NRC will be issuing a supplement to the GEIS for the renewal of the operating license (OL) of Palisades Nuclear Plant. The comment will not be evaluated further.*

2. Comments in Support of License Renewal at Palisades Nuclear Plant

Comment: Our City Council passed a resolution favoring the renewal of the Palisades license agreement or renewal. Palisades has been a very good neighbor to South Haven. We kind of wish though that it was in the city so we get more taxes. Palisades has provided many good paying jobs and that's what we're looking for. And Palisades is probably the biggest single employer of our citizens of South Haven. It would be very detrimental to the economy of South Haven, you know, if Palisades were to close. (PS-E-1)

Comment: The plant was built in 1971 and began operation about that time. But I think the track record over the last 35 years has indicated that the plant has operated in an

environmentally safe manner. It has been closed down from time to time for refurbishing and changes that come along. (PS-F-1)

Comment: The Mayor is right, it is a large employer to the community. A large part of our tax base. But if it wasn't for the safe operation of that plant we would not support its continued operation. (PS-F-2)

Comment: On March 22nd, we unanimously passed a resolution in support of the continuing operation of the plant and the extension of the license. (PS-F-3)

Comment: Palisades has received letters and resolutions of support from 13 different local government bodies, including the City of South Haven; the townships of Covert, South Haven, Geneva, Antwerp, Columbia, Decatur and Pine Grove; the Greater South Haven Area Chamber of Commerce; U.S. Representative Fred Upton; and the concurrent resolution from the Michigan State House and Senate. These bodies wouldn't have supported our license renewal if they also didn't feel that we could continue to be a safe provider for another 20 years. (PS-G-3; PS-S-2)

Comment: At our April 12th, 2005, board meeting, the Geneva Township Board unanimously voted to support the license renewal by resolution which was presented to Mark Savage at this meeting. It is my strong belief that the negative personal and economic impact that all of us will feel if the operating license for Palisades is not extended. The loss would be a great magnitude to this community. (PS-H-2)

Comment: Earlier in the year, we passed a motion at a township board meeting supporting the licensing process for Palisades Nuclear Plant. Palisades has been an excellent neighbor for the community. The people that work there are civic minded. We have people that are Boy Scout leaders, have served on township boards. Palisades has been very community oriented. They've helped the, I'm chairman of the emergency services. They've helped the fire department, emergency services. They help community functions also, so, it's a very welcome aspect to this community. The people there provide, buy homes, have children for the schools. (PS-R-1)

Comment: As probably everybody in this room knows, for every dollar that's spent in the community, that dollar's circulated six or seven times, so it's a good economic asset to the community. (PS-R-2)

Comment: And, you can see in that involvement their commitment to safety out at the plant. I do know a number of folks that work out there, and they are very safety conscious, and they bring that home with them and into the work that they do in the community and in their social lives. So, we're very pleased to have the plant here and encourage the relicensing and reinvestment here in the South Haven Area. (PS-T-2)

Comment: I really didn't come prepared to speak, but, I wanted to correct; Gary Karch said Covert hasn't benefitted from this power plant. That's very far from the truth. We have a wonderful fire department, we have a full-time police department. We have water throughout the township. Without Consumers help with this, that wouldn't happen. Covert is very much in favor of this renewal. (PS-W-1)

Comment: Attached is a copy of House Concurrent Resolution 8 sponsored by myself supporting the relicensure of Consumer Energy's Palisades Nuclear Power Plant. This resolution was adopted unanimously by the Michigan Legislature demonstrating our position that

the State of Michigan fully supports the relicensure and long-term support of this facility.
(PS-X-1)

Comment: As the Representative of Covert, home of Palisades, I can assure you of their outstanding and expletory record throughout the community as an employer, neighbor, and communicator with the entire Southwest Michigan area. Consumers Energy works tirelessly to keep the public informed and give surety to individuals with questions or concerns. (PS-X-2)

Comment: At the April 12, 2005, meeting, the Geneva Township Board unanimously voted to support the license renewal by resolution, which was presented to Mark Savage at that meeting.
(PS-Y-5)

Comment: It is my strong belief that the negative personal and economic impact that all of us will feel if the operating license for Palisades is not extended would be of great magnitude to this community. I am asking your full support for the 20-year renewal of the licensing of Palisades.
(PS-Y-6)

Comment: Throughout the years, Consumers Energy (now managed by Nuclear Management Company) and the Palisades Nuclear Plant have been good neighbors. Covert Township is very much in support of their efforts to get their operating license renewal. (PS-W-5)

Response: *The comments are supportive of license renewal at Palisades and are general in nature. The comments will not be evaluated further.*

3. Comments in Opposition to License Renewal at Palisades Nuclear Plant

Comment: I understand that many people are employed by Palisades and it's a part of the economy here and that makes it difficult to criticize. However, if we look ahead to the seventh generation, as Native Americans say, there are some problems. (PS-C-3)

Comment: We do not need it, and we should stop making it as fast as we can. And the quickest way to do that in this area; we have a chance, we don't have to do anything. We just have to get the NRC to not renew the license of these people out here who are producing all this death potential waiting for that clunk, clunk, clunk, clunk for somebody to drill a hole and open up Pandora's Box and kill God knows how many millions of people. Because that is the ultimate result of nuclear power. Whether, how safe it is now it's like jumping off the Empire State Building. As you go by the fifty-second story, see I haven't been hurt a bit. (PS-I-8)

Comment: But this is very important, and I hope people will listen that death is coming if we stay with these nuclear power plants, and this is one chance to get rid of one of them. (PS-I-9)

Comment: We are opposed to renewing the Palisades license for two main reasons. (PS-J-3)

Comment: So we as Greens oppose the renewal of the Palisades Plant because of its age, because it's old, and because there are no solutions to what to do with the waste. (PS-J-7)

Comment: It's all public risk, private profit. And, I have a problem with that. And, this is an aging plant . . . this plant should have been shut down in 1981. (PS-K-12)

Comment: I also have a problem with them, Consumers having a fire where trailers of documentation were burnt on the casks; the documentation about the cask was burnt in a fire that was suspect and is still under, I don't know if it's still under investigation, but, I don't believe arson was ever ruled out. A caveat to that was that Consumers Power did provide the local fire department, about 5, 6 years previously, with about an \$800,000 piece of fire equipment. So, if it looks like a duck, walks like a duck, smells like a duck, it's a duck. And this is a rotten eggs here. So, don't bring us 20 more years of this. (PS-K-15)

Comment: So, I would just point that out. Let's not make 20 more years, because there certainly is no place for that. There's no place for the first 40 years of waste. (PS-K-16)

Comment: So, I have a lot of concerns about this [Palisades] and I think that it needs to be shut down. (PS-M-16)

Comment: And, I think that another 20 years of this nuclear power plant in operation is risking a meltdown and I don't want it. And I think anybody in this room does not want that to happen here. And, honestly, I think from studying everything, especially because it's too much of the fox in the hen house doing the reporting, it just cannot be guaranteed. (PS-M-19)

Comment: We need to not sell our souls for jobs or for a "solution" that creates eons of poisonous aftermath. (PS-N-12)

Comment: You know, I know I'm being sold a bill of goods here. I know we're got this 40-year old reactor out there that we're going to just, we're going to run it for another 20 years. I'm nervous about that. It gives me great cause for concern, and I just don't think it's a good idea. (PS-P-2)

Comment: We can turn this greenhouse effect around. We can fix these problems, but right now, we want most of our resources going to what's making the right people a lot of money. And, they're just trapped there. And, we're just getting this continual PR [expletive] that that's all going to be okay. And, I just don't want South Haven, I don't want my hometown to [be] the place where this really goes wrong, when the world gets taught a lesson it'll never forget, like they had to do over in Russia. Not here. (PS-P-5)

Comment: I just think that maybe it's good, we've got a new power plant right across the way. And, maybe that could just, you know, ease this one [Palisades Nuclear Plant] out and pump this one up. (PS-U-3)

Comment: Relicensing Palisades Nuclear Plant in Michigan is a bad idea. (PS-AA-1)

Comment: I support saving nuclear power. Put money into Pebble Bed Reactors. We don't need another meltdown like Chernobyl! I live nearby! If you do give it another 20 years, at least send iodine tablets to everyone in a 50-mile radius! (PS-AA-2)

Comment: The United States decided to put nuclear on hold for a lot of reasons; nothing has changed with respect to those concerns, to fire up nuclear generation again. The Great Lakes are far too valuable a water resource to have it ringed by nuclear power plants and nuclear waste storage. (PS-BB-3)

Comment: We vote NO. (PS-BB-4)

Response: *The comments oppose license renewal at Palisades Nuclear Plant and are general in nature. The comments will not be evaluated further.*

Comment: I feel that to relicense a dangerous, embrittled, and aged plant on the shores of Lake Michigan is pure folly as is the storage of the spent fuel rods which many of us tried through an organization called Palisades Watch to stop a few years ago. We were unsuccessful. I feel this plant should be shut down and retired for service as I believe was originally planned. I may be confused about that but I thought in all of these plants in the beginning it was said, you know, they won't operate forever. They'll last a certain amount of time then they'll be retired because they're not going to be safe after that. So I'm confused as to why relicense, relicense, relicense, how long would this go on? I need more information. I do not feel that it is socially or fiscally prudent to relicense Palisades. I feel it is unacceptable to put local residents at such a grave risk. (PS-C-10)

Comment: I say, our psychological body burden, we've had enough psychological body burden in Michigan, here, especially in southwestern Michigan. We've got [DC] Cook and it's probably a done deal that they're going to get another 20 years. But, we don't need this little Palisades with all its history of safety infractions in the hundreds that made headlines over the years. We don't need this anymore. (PS-L-4)

Comment: I believe because of the embrittlement of Palisades, and because of the history of problems with the plant, including staff/management problems and repair backlogs, and after speaking with local residents and finding that there is a cancer pocket in the beach community, and that Palisades has repeatedly asked for safety exceptions to keep operating, one can only conclude that this is a nuclear reactor that is past due and should not be relicensed. (PS-DD-1)

Comment: Since the water of the Great Lakes is being bottled and sold as drinking water, it is an invaluable resource to the citizens of the region and the world. It is not enough to repair problems as they occur, but it is imperative to put an end to the premise that such repairs will always be possible, and in acknowledging that with a cracked and aging nuclear facility, that is, Palisades, it is not worth the risk to keep it running. (PS-DD-8)

Response: *The NRC makes the decision to grant or deny a license renewal based on whether the applicant has demonstrated that the environmental and safety requirements in the NRC's regulations can be met during the renewal term. The NRC's ongoing safety program focuses on prevention of safety problems so that potential issues, such as aging and reactor vessel embrittlement, do not lead to accidents and subsequent environmental impacts. The intent of the NRC's safety review is to determine if the licensee has adequately demonstrated that the effects of aging will not adversely affect any systems, structures, or components identified in Title 10, Section 54.4, of the Code of Federal Regulations (10 CFR 54.4). The safety review process includes site inspections to assess whether the applicant has implemented and complied with the regulations for license renewal. The review results in a publicly available Safety Evaluation Report (SER) available online at <http://www.nrc.gov/>. The comments oppose license renewal and are general in nature. The comments will not be evaluated further.*

Comment: It is time to close it. It should have been closed a long time ago. We would have had less waste lying out on the shores of Lake Michigan ready for terrorists to make possible use of. (PS-I-5)

Response: *The NRC and other Federal agencies have heightened vigilance and implemented initiatives to evaluate and respond to possible threats posed by terrorists, including the use of*

aircraft against commercial nuclear power plants and independent spent fuel storage installations (ISFSIs). Malevolent acts remain speculative and beyond the scope of a NEPA review. The NRC routinely assesses threats and other information provided to it by other Federal agencies and sources. The NRC also ensures that licensees meet appropriate security levels. The NRC will continue to focus on prevention of terrorist acts for all nuclear facilities and will not focus on site-specific evaluations of speculative environmental impacts. While these are legitimate matters of concern, they should continue to be addressed through the ongoing regulatory process as a current and generic regulatory issue that affects all nuclear facilities. The NRC has taken a number of actions to respond to the events of September 11, 2001, and plans to take additional measures. However, the issue of security and risk from malevolent acts at nuclear power plants is not unique to facilities that have requested a renewal to their license and, therefore, will not be addressed within the scope of this SEIS. The comment opposes license renewal at Palisades and will not be evaluated further.

4. Comments in Opposition to Nuclear Power

Comment: Anyway I was very interested in atomic power and along came my *Scientific American* and my *Popular Mechanics* and so on. We're going to have electricity for one cent a kilowatt hour, I was told on the cover of one of those magazines. This is atomic energy. And I believed it all. I have since come to believe otherwise. (PS-I-1)

Comment: It is false pride, and it is not worth it, because, you talk about kids. What are you going to do if there is a meltdown? How are you ever going to get your kids back? You won't. You will give everything you have to get your life back and get your kids back. You might have kids that have cancer. You might have kids that are killed instantly. You could have kids that will have kids like at Chernobyl, your grandkids might be mutated. I mean, I've met the kids of Chernobyl. And, if you saw those kids, how wounded they were. They were blind, they were handicapped, it was so sad. And, there was American kids who were healthy and playing and vibrant and alive and here are these poor kids. And, the only difference is, a meltdown. (PS-M-18)

Comment: Now, I have the impression after 20 years of Don't Waste Michigan, that the public really doesn't know very much about nuclear issues although I think that, at least I find there are people scattered everywhere I go that are very much interested because they realize that energy is one of the major issues that is part of our world today and our future, my grandkids' time. And, that, yes, we need to do something about these energy issues. But, I still, I'm very much, I'm sorry, my e-mail address is [auntynuke]. And, so you can contact me, [auntynuke] AOL.com. (PS-N-3)

Comment: I think, I agree with him, that the only place for a nuclear reactor is on the sun and obviously we're not going to shoot the waste or do our nuclear stuff on the sun because getting up there is the other part of the problem. (PS-N-4)

Comment: One more comment about clean. Nuclear power is clean in that you cannot taste, or you cannot smell it. You can't see it, you can't write your name on it on the windshield of the car. The particulates are so very very fine that when they use it in depleted uranium ammunition, etcetera, which is involved quite directly with the whole power situation, that the very very fine particulate is very incendiary, and anytime it's, a metal piercing ammunition is, I understand is depleted uranium whether it's done by plane or some ground firing or whatever. But, it's very very fine and it burns and it invades the environment. Now, how much of that very

fine particulate is also part of the picture of a nuclear power plant? How much does it invade the environment, in comparison to the heavy particulates of fossil fuels? Oh, and clean, I mentioned this morning that I understand that yes, you can taste a radioactive exposure. It gives a metallic taste on the tongue, you taste a penny. So, I'm not a scientist, obviously, but I am very concerned that we need all forms of science and the emotion that comes from human beings in order to take good care of my five grandkids. (PS-N-13)

Comment: We can't really call it clean when we look at the results of the DU ammo. Depleted uranium ammunition that is being used has been used in every war the United States has been in since Bosnia, including Afghanistan, including two now in the Iraq area etcetera. (PS-D-7)

Comment: I don't want to see anybody lose their jobs. But, I must admit, I was raised by people who were against nuclear power. (PS-U-1)

Response: *The comments oppose nuclear power, in general, and will not be evaluated further.*

5. Comments Concerning Aquatic Ecology Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 aquatic ecology issues for plants with cooling tower heat dissipation systems include:

Category 1

- Accumulation of contaminants in sediments or biota
- Entrainment of phytoplankton and zooplankton
- Cold shock
- Thermal plume barrier to migrating fish
- Distribution of aquatic organisms
- Premature emergence of aquatic insects
- Gas supersaturation (gas bubble disease)
- Low dissolved oxygen in the discharge
- Losses from predation, parasitism, and disease among organisms exposed to sublethal stresses
- Stimulation of nuisance organisms (e.g., shipworms)
- Entrainment of fish and shellfish in early life stages
- Impingement of fish and shellfish
- Heat shock

Comment: Consumers Energy and Nuclear Management Company admit, in Section 3.1.3.3 "Biofouling Control" on Page 3-7 of their Environmental Report that NMC uses biocides such as chlorination, bromination, and amine formulations. The IJC [International Joint Commission] also called for virtual elimination of toxic discharges into the Great Lakes and identified radionuclides as persistent toxins that also needed to be virtually eliminated from the Great Lakes. The IJC commissioned two reports, the first on the radionuclide inventory in the Great Lakes, and the second on the bioaccumulation of radionuclides in Great Lakes biota. (PS-EE-14)

Response: *The accumulation of contaminants is a Category 1 issue that has been evaluated in the GEIS. All effluent discharges are regulated under the provisions of the Clean Water Act and the implementing effluent guidelines, limitations, and standards established by the*

U.S. Environmental Protection Agency (EPA) and the States. Conditions of discharge for each plant are specified in its National Pollution Discharge Elimination System (NPDES) permit issued by the State or the EPA. [The EPA has reviewed the Ninth Biennial International Joint Commission (IJC) Report and concluded that “The U.S. will continue to monitor nuclear generating stations to insure that toxic chemicals are not being used in large quantities and that radioactive forms of toxic chemicals are not being generated in sufficient amounts to cause significant impact on the Great Lakes ecosystem.”] The comment does not provide new and significant information and, therefore, it will not be further evaluated.

Comment: What has been the impact of Zebra Mussels and Quagga Mussels on the Palisades plant? How have these species been controlled at Palisades and how have the use of toxics such as Betz Clam-Trol impacted the water quality on which the public relies? What would be the consequences at Palisades if these toxics were not used? What has been the history and mitigation attempts regarding fish kills at Palisades? What game fish have been impacted by the operation of the Palisades reactor? What has been the bioaccumulation and bioconcentration of persistent toxics both radiological and nonradiological contamination in recreational and commercial game fish? (PS-EE-38)

Response: *Zebra Mussel control will be discussed in Sections 2.2.3 and 2.2.5 of the SEIS. Quagga Mussels are not present at the Palisades site. Aquatic ecology impacts are Category 1 issues that were analyzed in the GEIS. The comment does not provide new and significant information in these areas; therefore, it will not be evaluated further.*

6. Comments Concerning Threatened and Endangered Species

Comment: NMC/Consumers Environmental Report identifies numerous federal and State of Michigan endangered, threatened, candidate, or species of special concern – such as eastern box turtle, lake sturgeon, lake herring, creek chubsucker, Pitcher’s thistle, prairie warbler, prairie vole, eastern massasauga rattlesnake, spotted turtle, Indiana bat, globe-fruited seedbox, scirpus-like rush, bald rush, Carey’s smartweed, and sedge that either already live at or near the Palisades reactor, or very likely could in the future. Twenty more years of reactor operations threatens these already threatened, endangered, or candidate species, including daily “routine” radiation releases and/or potential large-scale radiation releases’ harmful impact on the threatened, endangered, or candidate genetics of these species. In addition, the dunes upon which Palisades is built and operates are recognized as Critical Dune Areas under Michigan’s Natural Resources and Environmental Protection Act and are recognized by Covert Township as an Environmentally Sensitive Area, and thus should be protected against 20 more years of daily “routine” and potential large-scale accidental radioactive contamination. Likewise, the Mesic southern forest on the south end of the Palisades site is recognized as a prime example of this ecosystem type by the Michigan National Features Inventory and should be protected against ongoing radioactive contamination for another two decades past 2011. (PS-EE-31)

Response: *The NRC conducts an independent analysis of the impacts of license renewal on threatened and endangered species. Federally and State-listed threatened and endangered species that have the potential to occur in the vicinity of Palisades will be discussed in Sections 2.2.5 and 2.2.6 of the SEIS. The potential impacts of renewing the Palisades OL on Federally listed threatened and endangered species will be discussed in Section 4.6 of the SEIS.*

7. Comments Concerning Surface-Water Quality, Hydrology, and Use Issues

Comment: Over the years I've been watching this thing; among the issues that first came up is there was a 7-mile cooling tube that went out into the lake from the plant to cool this. That's why eventually they had to build the steam, they had to build the cooling towers because there was a lot of complaint about this, what effect this cooling tube would have on the lake, on the environment, and under the snail garter thing and all of that. And as I understand it, they are using that cooling tube from time to time. So is it really correct to say that, you know, we don't have a pond, we have a fuel pool that we store the old assemblies until they started taking them out and putting them on the beach? But are they still using the cooling tube out there then? (PS-A-1)

Response: *A description of the Palisades Nuclear Plant cooling water systems will be provided in Chapter 2 of the SEIS.*

Comment: And I'd ask you to look at the impacts of the recently built water intake for the drinking water supply of South Haven, just a few years ago, which I was shocked to see was located so very close to the Palisades reactor. So I'd ask you to look at the outflow, the discharge of radioactive particles as well as toxic chemicals from the Palisades Nuclear Plant being drawn into that water intake. What kind of impact that's having on South Haven residents and tourists who are visiting? (PS-B-12)

Comment: The National Discharge Permit, is this part of the consideration? I'm talking about the biocides, the slimicides, the -- size, the heavy metals, the petrochemicals that are put out of this plant on a daily, routine basis. Are those going to be part of the EIS? (PS-K-1)

Comment: There are so many things going on in this community. There's a high cancer rate. I have got, you know, different things have happened to me. Swimming, etcetera. When I was a kid, I came here and swam. And, the water was clean, I could drink it. Now, it's full, it's scummy, it's full of algae. It's a huge change in the quality. The water's still cold. That does not explain the algae. So, there's a lot of things in the environment I think that are happening that are unexplained. (PS-M-6)

Comment: The impact of 20 additional years of pollution by toxics disclosed but not adequately controlled under requirements of the National Pollutant Discharge Elimination System (NPDES) will directly affect water quality of nearby sources, including Lake Michigan. In 2000, for example, Palisades was found to be in "continuing noncompliance" for its apparent multiple misuses of Betz Clam-Trol in Lake Michigan for the dispersion of mussels and clams affecting the reactor's water intakes. See <http://www.epa.gov/region5/water/weca/reports/mi4qtr01.txt>. NPDES violations also contradict the spirit, intention, and explicit recommendation of the International Joint Commission (IJC). In its "Ninth Biennial Report on Great Lakes Water Quality," the Commission's Recommendation #16 (at p. 42) urges that "[g]overnments monitor toxic chemicals used in large quantities at nuclear power plants, identify radioactive forms of the toxic chemicals and analyze their impact on the Great Lakes ecosystem." (PS-EE-13)

Comment: The radioactive and toxic chemical emissions from the Palisades nuclear power plant into the waters of Lake Michigan contaminate the recently installed drinking water supply intake for the City of South Haven, built just offshore from Van Buren State Park and just downstream from the Palisades reactor, due to the direction of the flow of Lake Michigan's waters and the very close proximity of the Palisades reactor to the South Haven drinking water

supply intake. U.S. National Oceanographic and Atmospheric Administration models confirm the direction of water flow in Lake Michigan toward the intake. (PS-EE-2)

Response: *The comments are related to Category 1 surface-water quality, hydrology, and use issues evaluated in the GEIS. Consumers Energy Company Palisades Nuclear Plant's compliance with NPDES requirements and the operations of the South Haven water treatment system will be discussed in Chapter 2 of the SEIS.*

The EPA reviewed the Ninth Biennial IJC Report and concluded that "The U.S. will continue to monitor nuclear generating stations to insure that toxic chemicals are not being used in large quantities and that radioactive forms of toxic chemicals are not being generated in sufficient amounts to cause significant impact on the Great Lakes ecosystem." The comments do not provide new and significant information; therefore, they will not be evaluated further.

Comment: Global warming could also alter the water levels and water temperatures in Lake Michigan over the course of the 20-year license extension, impacting Palisades nuclear reactor operations. Similarly, large-scale water diversion from Lake Michigan or inland groundwater that feeds into the Great Lakes – proposed by southwestern states, for example, to address their drinking water and other needs in current drought conditions (perhaps also attributable to global warming) and water bottling companies – could also impact water levels in Lake Michigan over the next 20 years. (PS-EE-30)

Response: *While climate change is a legitimate concern, the specific impacts of climate change within a particular region or watershed are still highly speculative, and are, therefore, beyond the scope of a NEPA review for reactor license renewal. Furthermore, any changes in watershed characteristics would likely be gradual, allowing water-use conflicts to be resolved as needed. The comment does not provide new and significant information; therefore, it will not be evaluated further.*

8. Comments Concerning Human Health Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 and 2 human health issues include:

Category 1

- Microbiological organisms (occupational health)
- Noise
- Radiation exposures to public (license renewal term)
- Occupational radiation exposures (license renewal term)

Category 2

- Electromagnetic fields, acute effects (electric shock)

Comment: In other words you said air, water, and health. But, you know, what are some of the, what's some of the specific monitoring that you're doing which would include these questions of mine? (PS-C-2)

Comment: There is no independent verifiable monitoring of Palisades. The community of Covert and surrounding communities are dependent upon the operators of Palisades to provide

notification of radiological releases. There is an implicit public relations and financial incentive for the operators not to be forthcoming regarding radiological events and accidents. Therefore, these communities must be equipped with independent verifiable radiological monitoring to protect themselves. (PS-EE-33)

Response: *The radiological monitoring program at Palisades will be discussed in Chapter 2 of the SEIS.*

Comment: The same thing has happened in Lake Michigan, that the fallout that occurred during the aboveground testing before 1963 turned out to be fallout like all over everywhere. There are some books, one called *Under the Cloud*, where it'll say Sparta, Michigan, and name several of the other towns in succession where the plumes had gone. In the case of Lake Michigan, there was a Michigan State professor who, a few years back but quite a while back, had mapped the hot spots in Lake Michigan because the fallout occurred in successive sedimentary layers. And then the storm times come, that's November isn't it, and, you know, the Edward Fitzgerald time etcetera. And the waters rile up and then settle down and rile up and settle down. So there are unexpected hot spots that have been mapped in Lake Michigan. (PS-D-5)

Comment: Oh, the hot spots issue. I would like to see a map of the hot spots in Lake Michigan. Is there one somewhere near our plant here. What has our plant fed into it? When I talk hot spots, around Chernobyl the fallout settled down and the winds came along and picked it up and moved it someplace else. And the winds came along and picked it up and moved it someplace else, creating hot spots in very unexpected locations. The same thing has happened to Lake Michigan. Ever since the fallout time stopped in 1963 from the aboveground testing, which laid down layers of sediments of radioactivity, those have done the same thing in storm time, November. And, it gets it up and it settles down. It gets up and it settles down. And, I feel that a map of that needs to be part of this relicensing process. That's environmental. And, how much of it would our plant here add to it? (PS-N-12)

Response: *It is likely that there is some variation in radionuclide concentrations in lake bed sediments either due to variability in natural background radiation or due to resettlement of radionuclides resulting from weapon program fallout or effluents from Palisades. However, such concentrations, or variations thereof, are expected to fall within the range of natural background radiation found in the area. The doses resulting from radionuclides originating in the Palisades Nuclear Plant are expected to be well below any applicable regulatory limits.*

The comments relate to Category 1 human health issues that were evaluated in the GEIS. The comments provide no new and significant information; therefore, they will not be evaluated further in the SEIS.

Comment: I hear from the NRC that natural radiation is no more dangerous than the radiation produced out here. (PS-A-4)

Comment: There's like you said, there's not that much nuclear energy being, or radiation out there. The problem is we don't know how much is too much. And any addition is more than enough. (PS-J-2)

Comment: So I would ask you to look at the, the health impacts on African-American workers at the facility. I'd ask you to look at health impacts on Latin Americans who work in the agricultural industry in this area. (PS-B-8)

Response: *The comments relate to Category 1 human health issues that were evaluated and discussed in the GEIS. The comments provide no new and significant information; therefore, they will not be evaluated further in the SEIS.*

Comment: I mean we've got to have a better way than putting this stuff out on the beach 150 yards from the lake. I mean that's, yes, I realize in 20 years I haven't seen where this industry has killed anybody. I've heard some things, you know, of people getting cancer, suing the place, the company quickly settling out of court with them. Well, maybe there's something there, maybe not. I really don't know. But I'm not particularly scared of being, of radiation coming my way just living 3 miles from the plant. But I am concerned about those people on the plant and what happens if one of those casks break. I'm concerned about, you say well, we don't, the NRC aren't going to monitor this thing we'll let the plant people do it. Well, that's a requirement for the plant people. When they put on the first VSC24 cask they didn't have internal monitors in those darn things. They didn't want to put on external monitors until the public outcry made them. (PS-A-7)

Comment: And I'd ask along those same lines that you look at the impacts on the Palisades Park community which I visited for the first time recently and was shocked to see how close it actually is to the Palisades reactor. Actually, the Palisades reactor was built in the Palisades Park community. So I'd ask you to look at the health impacts on that population there. (PS-B-11)

Comment: I was wondering also if you were gathering information from public agencies? Have you gathered information from the Public Health Department on the cancer rate in South Haven and Covert? (PS-M-3)

Comment: Do you have any plans to contact the Public Health Department for, you know, reports about the high incidence of cancer in this area? (PS-M-5)

Comment: The last two meetings I mentioned, you know, let's get the public health reports. This should be included. But, no. The public health was not contacted. Do we have to get an FOIA [Freedom of Information Act] to find out the statistics? As I understand it, there was a cancer study that was done and should be able to be procured. (PS-M-15)

Comment: Do you in your monitoring even the DEQ [Department of Environmental Quality] or NRC, do you look at things such as increased cancer rates in the area? Do you look at the soil and see if it's contaminated in any way? (PS-C-1)

Comment: The study that you just mentioned, I've heard studies that are just the opposite. And we have talked with people in this area that up to 8 out of 10 people are saying oh, yes, I know someone with cancer or I have cancer. So I don't know what current studies are showing but are any of these studies available on those tables back there? (PS-D-1)

Comment: So, these are such huge issues. Embrittlement, the cancer rate, I've talked to people in this community who've said different horror stories about workers that have had cancers and terrible things have happened to them. People that are cancer survivors, people that have deaths in the family from cancer. Someone said that that 8 out of 10 people in this area either have cancer or know someone with cancer in their family or know someone who has died from cancer. (PS-M-14)

Comment: And, I'd like you to meet my girlfriend . . . a cancer survivor, born and raised here. Her mother, cancer survivor, born and raised here. Her sister, cancer survivor born and raised here. Her sister used to swim down by the nuclear power plant, but, in '95 they had to remove a seven and half-pound tumor from her abdomen. Now, I don't know if that has to do with nuclear power, but, you know, they are born and raised here. And, her sister-in-law, her stepfather worked at the nuclear power plant. And, one day, his lungs filled up with blood and he died at the age of 39. I don't know what that was from. (PS-U-2)

Comment: I also ask that public health data regarding cancer rates in surrounding communities of the Palisades Nuclear Plant be included in the discussion, and participation by Michigan Department of Community Health epidemiologists be present at future hearings. (PS-CC-4)

Comment: Further, I would ask as I have at public meetings, that certain essential elements not be excluded from evaluation.

1 .The public health records of the surrounding counties and downwind regions of Palisades. Also, the correlation between the cancer and infant mortality rate as it parallels the plant in operational mode versus shutdown status. (PS-DD-5)

Comment: Does your environmental review, will it include the recent National Academy of Sciences' report on biological effects of ionizing radiation? The Number 7 report, including the finding that low-level radiation does indeed have an adverse health impact? Will that comment on that? (PS-B-3)

Comment: And I'd also challenge something that was brought up by the health physicist from NRC. Depending on the United Nations Scientific Committee on the Effects of Ionizing [Atomic] Radiation [UNSCEAR] is problematic because just to give you one example in their review of the Chernobyl aftermath on human health, they failed to look at the consequences of internal doses of radioactivity. All that they were looking at was external doses of radioactivity. But of course, the people there are eating radiation in their food, drinking it in their water, perhaps even breathing it in. So that's problematic. So I challenge you to look at internal doses especially in light of the Biological Effects of Ionizing Radiation report which recently came out which actually found that at lower levels of radiation the impact may be higher than previously thought, approaching a direct relationship as you mentioned, the no threshold theory was retained. So at low levels of radiation which we're talking about here in terms of routine radiation releases, there is health damage associated with that. (PS-B-18)

Comment: The third report in the series, on radioactivity's impact on human health, was never completed. This study on radiation's impact on human health in the Great Lakes Basin should be completed prior to granting Palisades an additional 20 years of operations, especially in light of the National Academy of Sciences Biological Effect of Ionizing Radiation Panel's recent report (BEIR VII), which found that no amount of radiation is too small to not have an adverse impact on human health. Baseline health studies are necessary before NRC grants Palisades a license extension, especially considering that the National Cancer Institute's report on cancer near nuclear reactors, published in 1990, is now 15 years old. It does not account for cancers occurring over the past 15 years, and is in addition methodologically flawed. Independent baseline health studies must be performed before NRC grants Palisades a 20-year license extension. (PS-EE-15)

Comment: The BEIR VII report has recently been published. The recent BEIR scientific conclusion that there is no "safe" level of radiation – no matter how low the exposure – requires

reconsideration of the "legal" operation of Palisades at all. Palisades acknowledges routine "lawful" radiation releases. The new scientific conclusion compels reconsideration of the feasibility of continuing to allow Palisades to operate at all, especially given the related issues of drinking water pollution via radiation. (PS-EE-32)

Comment: And I would challenge the NRC environmental reviewers to look at the lack of information about cancer rates in the vicinity of nuclear plants like was raised earlier. This 15-year-old study would not include the latency period for certain cancers that have perhaps happened in the last 15 years. And I would also challenge you to, to look for flaws in the methodology of that study. A mother in Morris, Illinois, named Cynthia Sauer whose daughter contracted brain cancer at age 10, age 7 I'm sorry, who is now 10 and in remission, has looked into that study very carefully and has found flaws in the methodology. And of course, Morris, Illinois, is the site of three reactors as well as a large waste storage pool. (PS-B-17)

Comment: And another question is this 1990 study that's 15 years ago and my understanding is latency periods for cancers would not necessarily be included, you know, unless you were to do a review, an update. So do you plan to do an update on that 1990 study in addition to the recent findings by the National Academy that low-level radiation does cause adverse health impacts? (PS-Q-4)

Comment: There is a current need for a baseline public health study to establish cancer and other disease rates prior to consideration of the proposal for a 20-year license extension. The NRC has relied on the National Cancer Institute (NCI) Study of 1990 to address cancer rates near nuclear power plants. However, the only data considered by the NCI was the county that the reactor is located in, not other downwind and downstream counties. Thus, that study is methodologically flawed. It is also 15 years old, and thus does not include data on occurrences of cancer over the past 15 years, rendering it outdated. In addition to studying cancer, other diseases associated with radiation exposure must also be studied. (PS-EE-26)

Response: *The comments are noted. Radiation exposure to the public during the license renewal term is a Category 1 issue that was evaluated in the GEIS. Health effects from radiation are a well-studied environmental hazard according to the General Accounting Office. More than 86,000 studies have been performed on the biological effects of radiation, and none of the scientifically valid studies shows any radiation effects at doses less than 10,000 millirem. According to the Health Physics Society (www.hps.com), "below the dose of 10,000 millirem, estimation of adverse health effects is speculative. Collective dose remains a useful index for quantifying dose in large populations and in comparing the magnitude of exposure from different radiation sources. However, for a population in which all individuals receive lifetime doses of less than 10,000 millirem above background, collective dose is a highly speculative and uncertain measure of risk and should not be quantified for the purposes of estimating population health risks."*

The NRC evaluated the recently issued Biological Effects of Ionizing Radiation (BEIR) VII report and discussed its findings in a report to the Commission (SECY.05-0202; Accession Number ML052640532). The NRC staff found that the BEIR VII report does not support the need for fundamental revision to International Commission on Radiological Protection (ICRP) recommendations. However, it will provide additional technical basis for the ICRP to consider as it revises its draft 2005 recommendations on radiological protection. The NRC staff will continue to monitor the ICRP's activities, review documents when they become available, and provide comments directly to the ICRP. The NRC staff also will participate in other forums, such as the Expert Group of the Nuclear Energy Agency or the National Academies Board on Nuclear and Radiation Sciences, to express the NRC's views.

The comments provide no new and significant information; therefore, they will not be evaluated further in the SEIS.

9. Comments Concerning Socioeconomic Issues

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

Category 1

- C Public services: public safety, social services, and tourism and recreation
- C Public services: education (license renewal term)
- C Aesthetic impacts (refurbishment)
- C Aesthetic impacts (license renewal term)
- C Aesthetic impacts of transmission lines (license renewal term)

Category 2

- C Public services: housing impacts
- C Public services: public utilities
- C Public services: education (refurbishment)
- C Offsite land use (refurbishment)
- C Offsite land use (license renewal term)
- C Public services: transportation
- C Historic and archaeological resources

Comment: I appreciate the comments that preceded me and some of the benefits that the plant provides in the community through the employees, the tax base and the economy from the payroll that we pay out to our employees. But I also want to mention that all of our employees live here in the local communities surrounding the plant and the counties, the cities that surround it. And everyone of those employees also has a vested interest in ensuring that this plant continues to operate in a safe environmentally sound manner or we wouldn't stand here in front of you today to support our license renewal process. (PS-G-1)

Comment: Some of the benefits include the support for the local units of government, the tax-sharing entities, the community schools, the district libraries, hospital authorities. But, there's also other things. We support the emergency management activities in the area for the counties of Alleghan, Berrien, and Van Buren. That's also a very important function. (PS-G-2; PS-S-1)

Comment: Many Palisades personnel live in Geneva Township and are taxpayers, which benefits Geneva Township, South Haven area emergency services, Lake Michigan College, South Haven and Bangor Public Schools, Van Buren Intermediate School District, South Haven Hospital, South Haven Senior Services, and Van Buren County. Being a South Haven area emergency services authority board member, I have watched as Palisades has contributed much to our fire and ambulance service in the ways of training, equipment, and support. This joint effort for the safety of our citizens and Palisades personnel is a tribute to working together to make our community what it is today. Over the years we have been privileged to reports by Palisades personnel at our township board meetings keeping us informed on happenings, new procedures, updating of the siren warning system, and just being available to answer questions that arise in our public settings.

The seminars presented by Palisades personnel to provide exposure for the local municipalities and businesses and industries to review the plant and safety procedures that are in place as well as having contact personnel for our comments and questions is indeed beneficial. (PS-H-1)

Comment: What I want to speak to, briefly, is the socioeconomic impact and to reiterate some of the things that were in our statement from the Chamber board of directors over to the NRC and the Palisades plant and Nuclear Management Corporation. The plant has a significant economic impact on the area. Six-hundred plus employees, not to mention the contractors in the area. At least one-third of those folks live right here in the immediate South Haven vicinity. That's a lot of payroll dollars being spent right here in our community. A couple of folks I know that work out there said you could bump the payroll anytime you want. And, the other side of it is the contractors when you go into an outage. Lots of the small businesses that sit on the Chamber board and made the decision to support it, look at those outages and those opportunities when the plant is back reinvesting, cleaning things up, doing a lot of maintenance, that's a lot of extra folks in town spending money, doing and making things happen. There's also an element beyond the financial impact from that payroll. That's the involvement of those men and women that work out there. They are involved in the community. You'll find them serving on different public boards and commissions. Boy Scouts, Girl Scouts, 4-H, coaching basketball, baseball, softball. Just a tremendous social impact from their involvement. (PS-T-1)

Comment: I never realized until I became a board member of Geneva Township in 1987 and became acquainted with the operations and effect of Palisades Nuclear Plant on the structure and economic well-being of Geneva Township as well as the surrounding area. Palisades Plant and people continuing to support our communities, organizations, and businesses through usage, involvement, and monetary support, enhancing the overall Community Health and welfare. (PS-Y-1)

Comment: Many Palisades personnel live in Geneva Township and are taxpayers, which benefits Geneva Township, South Haven Area Emergency Services, Lake Michigan College, South Haven and Bangor Public Schools, V.B. Intermediate School District, South Haven Hospital, South Haven Senior Citizens, and Van Buren County. (PS-Y-2)

Comment: Being a South Haven Area Emergency Services Authority Board Member, I have watched as Palisades has contributed much to our Fire and Ambulance Service in the way of training, equipment, and support. This joint effort for the safety of our citizens and Palisades personnel is a tribute to working together to make our community what it is today. (PS-Y-3)

Comment: Funding for the Covert Township Ambulance/Fire Department and Police Department is through a voted millage for each Department. Currently, the tax revenue from Consumers Energy's Palisades Nuclear Plant is roughly 60 percent of the total taxes collected. If Covert Township were to lose this tax revenue today, they would have to shut down or drastically reduce the services that they provide to the community. (PS-Z-2)

Comment: If Palisades Nuclear Plant does not get a license renewal and Covert Township were to lose their tax base, it would have a very negative effect on the Economic Environment of a very poor diverse community. (PS-Z-4)

Response: *The comments relate to Category 1 socioeconomic issues and are supportive of license renewal for Palisades. The comments provide no new and significant information; therefore, they will not be evaluated further.*

Comment: I understand, you know, it's about the jobs here. I mean our town here in South Haven or Covert where they've put the plant officially, I mean we need jobs. But one thing I don't fear with, if Palisades does not get its license to continue to operate is that we're going to get a loss of jobs here. (PS-A-2)

Comment: And perhaps we would then say we need to gradually move toward other sources of employment. Certainly not just one company for our area. And to look to something that can continue on into the future for many generations. (PS-C-6)

Comment: The tax revenue from the Palisades Nuclear Plant also helps fund the Township's water system as well as the Township General Fund. The revenue loss to either of these would also mean either reduced services or a raise in taxes. (PS-Z-3)

Response: *The comments relate to Category 2 socioeconomic issues and will be considered in the preparation of the SEIS. Socioeconomic issues will be discussed in Chapters 2 and 4 of the SEIS.*

Cultural Resources

Comment: I'd also ask you to look at not only health impacts but cultural impacts and related socioeconomic impacts on the Native American tribes of this area whose land we stand on and whose land Palisades is located on if the treaties were honored. (PS-B-9)

Comment: Palisades' license extension application also has inadequately addressed the adverse impacts that 20 additional years of operations and waste generation would have on the traditional land uses, spiritual, cultural, and religious practices, and treaty rights of various Federally recognized tribes in the vicinity of the plant and beyond, as well as effects upon nonfederally recognized tribes governed by international law. Only three tribes were contacted by the NRC by August 8, 2005, and invited to participate in the license extension proceedings, which effectively excluded a number of tribes within the 50-mile zone around the reactor, as well as additional tribes beyond the 50-mile zone which have historic and traditional ties to the Palisades site and sites along the electric transmission line connected to Palisades. Despite the Michigan State Historic Preservation Office's concern pertaining to possible unreported archaeological properties present on, or with the vicinity of, the Palisades site (see Page C-2, Cultural Resources Correspondence of the Environmental Report), NMC and Consumers persist in opposing a survey of the project area as unnecessary. But, if unreported Native American archaeological sites are present at or near the Palisades nuclear power plant (which is very possible, given the very close proximity of a large creek in Van Buren State Park just to the north of the power plant, as well as the very close proximity of Brandywine Creek just to the south of the power plant in Palisades Park (rivers and creeks being common sites for encampments and villages amongst the indigenous peoples of Michigan since time immemorial), then 20 additional years of nuclear operations, radioactive waste generation, and daily radiation emissions would have a significant and severe adverse impact on Native American cultural and religious values at those sites, values which strive to protect sacred areas from such degradation. The fact that NRC contacted only the Nottawaseppi Huron Potawatomi, the Little Traverse Bay Band of Odawa Indians, and the Match-E-Be-Nash-She-Wish Band of Potawatomi, but did not contact the Pokagon Potawatomi (just 30 miles or so from the Palisades site), the Little River Band of Odawa Indians, the Grand River Band of Ottawa Indians, the Saginaw Chippewa Tribe, and the Grand Traverse Band of Ottawa and Chippewa Indians, means that this Environmental Scoping proceeding should be suspended until all stakeholder Native American tribes and bands are contacted and alerted to the opportunity to not only comment on the Environmental Scoping, but

to intervene against the Palisades 20-year license extension. Given the sovereignty of these tribes and bands, and the treaty rights that exist between them and the United States Federal government, the NRC has a government-to-government responsibility to consult with these tribes and bands on such significant federal actions as granting the Palisades reactor an additional 20 years of operations. An archaeological survey must be conducted before NRC grants a 20-year license extension to assure that Native American archaeological sites are not negatively impacted by future Palisades reactor operations. (PS-EE-18)

Response: *The comments relate to Category 2 socioeconomic issues and will be considered in the preparation of the SEIS. The NRC sent letters to 11 potentially affected American Indian tribes, including the Pokagon Band of Potawatomi Indians (Accession Number ML051960173), on July 13, 2005, inviting them to participate in the environmental scoping process related to NMC's application for the license renewal of Palisades. The potential impact of renewing the OL of Palisades on cultural resources will be discussed in Chapter 4 of the SEIS.*

Environmental Justice

Comment: Another issue, I was surprised when environmental justice was brought up because my understanding was that the NRC a couple or 3 years ago had largely gutted its environmental justice policy under pressure from the nuclear industry. So I'm glad to hear that you're going to look at that and I would request that you look at impacts on the African-American populations specifically in Covert Township where the facility is located. (PS-B-6)

Comment: And I'd ask that you look at impacts on the low-income community of this area as well. (PS-B-10)

Comment: As for the tax base, and the loss of tax base, that we had members of the Chambers of Commerce and Covert Township say is important, that every dollar generated is circulated seven times or what have you. Coming here, I drove through Covert. First time I drove through Covert was about 24 years ago. And, I've driven through it since particularly coming up here when, being involved in the Palisades plant before they even put out one dry cask. I was involved in some of the organizing against the dry cask. And, I don't see where Covert has, you know, benefitted anywhere. Maybe, you know, South Haven has, but, talk about environmental justice. Covert looks just as deprived as it has ever been. (PS-L-1)

Comment: Do you consider Covert as an environmental, what do you call that, what was that term you used? Yeah, the justice issue? (PS-M-4)

Comment: Covert Township is a very diverse community. The year 2000 U.S. Census report shows that Covert Township has a 35 percent Black and 15 percent Hispanic population. This report also shows that Covert Township is one of the poorest Townships in the State with a Median Household Income of only \$22,829. (PS-W-1)

Comment: Palisades nuclear generating station is the source of environmental justice violations. Located within a predominantly African-American and low-income township, Palisades provides woefully inadequate tax revenues to the host community, considering the large adverse impacts and risks the reactor inflicts. Palisades' African-American employees have traditionally been stuck in the dirtiest and most dangerous jobs at the reactor, with little to no prospects for promotion. Some of Palisades' African American employees have also experienced death threats at the workplace, including nooses hung in their lockers or in public

places to symbolize lynching, an apparent attempt to silence their public statements for workplace justice. (PS-EE-17)

Comment: A potential flaw in the NMC/Consumers Environmental Report is its exclusion of census block groups with greater than 50 percent of their area outside the 50- and 20-mile radii from Palisades. Not including these groups in calculating total population, minority or low-income estimates effectively excludes significant minority and low-income populations in Grand Rapids and Battle Creek, particularly African-American and Latin American communities living in these major urban centers. (PS-EE-21)

Comment: In addition, it is odd that NMC/Consumers writes in the Environmental Report (page 2-32) that “Berrien and Van Buren Counties host moderate numbers of migrant workers,” when 3,677 and 6,733 temporary farm laborers (many of them Latino) were employed in Berrien and Van Buren Counties, respectively, according to the U.S. Department of Agriculture in 2004. These numbers represent populations as large as the county seats and even the biggest towns in these counties. It is also not clear in the Environmental Report whether those numbers include the families which very often accompany the migrant farm laborers, which would boost the Latino population even higher.

It is ironic that NMC/Consumers acknowledges on page 2-36 of the Environmental Report that “Only one block group with a low-income population is located in Van Buren County. This block group is located in the western portion of Covert Township, which is a largely rural area.” Why is it that the largely African-American population of Covert Township is still low-income after 38 years of Palisades nuclear power plant’s presence in the township? Wasn’t the presence of the reactor supposed to help its hometown to thrive economically? What are the environmental justice implications of such an ironic history?

The fact that “The amount of future property tax payments for Palisades . . . are dependent on future market value of the plant” seems ripe for manipulation and abuse – such as artificially lowering the market value of the plant in order to lower future property tax payments -- by the politically and economically powerful Palisades nuclear power plant on its host township, county, and region, yet another environmental justice violation. (PS-EE-22)

Comment: Such impacts as harm to lake sturgeon – sacred to some Great Lakes tribes – must also be evaluated. It is interesting and telling that NMC’s Environmental Report assigns no “importance” to lake sturgeon (in Table 2.3-1, Page 2-47), despite its State of Michigan Threatened Status, and its sacred status in the cultures and traditions of various Great Lakes Native American tribes, not to mention its importance to the natural history of Lake Michigan as an ancient indigenous species in the ecosystem. This is an indication that NMC/Consumers is not acknowledging or addressing environmental justice impacts of 20 more years of operations at Palisades on Native Americans. (PS-EE-19)

Comment: How has the operation of Palisades impacted Native American fishing rights in the Great Lakes? (PS-EE-39)

Response: *In order to perform a review of environmental justice in the vicinity of a nuclear power plant, the NRC staff examines the geographic distribution of minority and low-income populations within 80 kilometers (50 miles) of the site. The NRC staff uses the most recent census data available. The NRC staff also supplements its analysis by field inquiries to such groups as county planning departments, social service agencies, agricultural extension personnel, and private social service agencies. Once the locations of minority and low-income populations are identified, the staff evaluates whether any of the environmental impacts of the proposed action could affect these populations in a disproportionately high and adverse manner.*

The comments relate to environmental justice issues and will be considered in the preparation of the SEIS. The NRC conducts an independent analysis of the impacts of license renewal with regard to environmental justice; potential impacts will be discussed in Chapter 4 of the SEIS.

10. Comments Concerning Postulated Accidents

Comment: Farmers downwind of Chernobyl, which melted down as we all know, are out of business because of contaminated soil. That's, that's our livelihood. We do not want to face that possible, perhaps probable, scenario here at home. Human error contributed to the Chernobyl meltdown and in spite of all the safeguards that you may have in place at Palisades when you factor that in what will the future bring us? (PS-C-12)

Comment: I live in Grand Rapids, 70 miles away. We are definitely downwind. One of the maps in the big books shows I believe the 50-mile radius, and as you know Chernobyl has a 19-mile interdiction area but they also find that the fallout that happens when a nuclear catastrophe does occur, settles down and then the winds pick it up and swirls it around again and the next windy day or windy season it settles it down again and it goes on and you end up with unusual, unexpected hot spots in places that people didn't expect. Where they no longer can go out and collect mushrooms and grow their own apples and so on. (PS-D-4)

Comment: Please don't say that it can't happen here. It can happen here. The chances of it happening we don't know just like we don't know how much radiation is too much because it's different for each individual. Okay. It is a possibility. I'd hate to see the year that South Haven was a town that used to be a great little tourist town. (PS-J-5)

Comment: You know, you can, every nuclear power plant that ever had an accident they said it wouldn't happen. You know, they didn't think Chernobyl would happen, they didn't think Three Mile Island would happen. There have been so many nuclear accidents and spills all along the trail of the nuclear industry from mining on up to transportation. (PS-M-11)

Comment: And, something also that Mr. Keegan mentioned was the environmental review has to look at the socioeconomic impact of a full-scale catastrophe at Palisades. Tourism was mentioned. I would also specifically request that casualties be looked at. The number of deaths, the number of injuries, the number of latent cancer fatalities. The number of genetic damaged children in future generations. (PS-Q-3)

Comment: Palisades' license extension application inadequately addresses the disproportionate adverse socio-economic impacts of a catastrophic radiation release, such as due to reactor core embrittlement leading to core rupture, to the low-income Latin American agricultural workforce of the Palisades area. Synergistic effects of such chronic and catastrophic radiation releases combined with the toxic chemical exposures these low-income Latin-American agricultural workers already suffer on their jobs have not been evaluated. Finally, there is an unacceptable lack of Spanish language emergency evacuation instructions and notifications to serve the Spanish-speaking Latino population within 50 miles of the Palisades reactor, especially migrant agricultural workers. (PS-EE-20)

Response: *The comments relate to Category 1 design-basis and severe accidents issues. The comments do not provide new and significant information; therefore, they will not be evaluated further. Environmental justice issues will be discussed in Chapters 2 and 4 of the SEIS. Issues*

pertaining to emergency planning are outside the scope of license renewal and will not be evaluated in the SEIS (see Out of Scope: Emergency Response and Preparedness).

Comment: It has been recently confirmed by the National Academy of Sciences that there is no safe level of exposure to radiation and that even very low doses can cause cancer. I am therefore disturbed by nuclear industry corporate culture that has a ubiquitous record of dismissing legitimate concerns about radiation exposures. In the case of Three Mile Island, it has been found by a more recent independent analysis of the 1979 accident that placement and frequency of monitoring devices were highly inadequate and unable to establish accurate data from which to establish radiation release patterns. For residents of Harrisburg and the surrounding area, that meant their reported symptoms of metallic taste, erythema, nausea, vomiting, diarrhea, hair loss, and deaths of pets and farm animals were attributed to stress brought on by the accident, not radiation releases from the accident. Apparently, if no monitors were present in any given neighborhood and therefore no radiation data could be collected, then no radiation had been released. People were treated as though they had psychological problems, not legitimate symptoms of radiation exposure. Exactly how will the citizens of Michigan be treated should a similar accident occur at Palisades? I simply refuse to accept my community being treated in such an insulting and degrading manner. I therefore ask that a complete map showing existing radiation detection locations for Palisades be provided and frank discussion on this monitoring methodology be initiated. (PS-CC-3)

Response: *The comments relate to Category 1 design-basis and severe accidents issues. The comments do not provide new and significant information; therefore, they will not be evaluated further. Radiological monitoring and sampling locations are identified in the 2004 Radiological Environmental Operating Report (Accession Number ML051390307). Issues pertaining to emergency planning are outside the scope of license renewal and will not be evaluated in the SEIS (see Out of Scope: Emergency Response and Preparedness).*

11. Comments Concerning Uranium Fuel Cycle and Waste Management

As stated in 10 CFR Part 51, Table B-1, Category 1 uranium fuel cycle and waste management issues include:

- C Offsite radiological impacts (individual effects from other than the disposal of spent fuel and high-level waste)
- C Offsite radiological impacts (collective effects)
- C Offsite radiological impacts (spent fuel and high-level waste disposal)
- C Nonradiological impacts of the uranium fuel cycle
- C Low-level waste storage and disposal
- C Mixed waste storage and disposal
- C Onsite spent fuel
- C Nonradiological waste
- C Transportation

Comment: Someone has said that radioactive waste is the product of a nuclear power process. The power is a sideline of it. Of course, nuclear power originated because somebody that was working out at Hanford area realized they were wasting an awful lot of heat in the making of the original atomic bombs. And so, what can we do with the heat? Uh, we will boil water, make steam, make power. And so, you know, in a roundabout way we have ended up with nuclear

plants all over the country, all over the world. But we have by far the largest number. But radioactive waste is definitely the product of it. (PS-D-6)

Comment: Second, we cannot keep producing nuclear waste without a way to protect us from the nuclear waste. I think enough has been said about that. I won't say a lot more but there is, there is no good permanent solution. My suggestion is that we send it to Washington, D.C. But I think some of our people here live in Washington, D.C. and like, like everybody else they do not want it in their backyard. Nobody wants it in their backyard. I wonder why? (PS-J-6)

Comment: Electricity is but the fleeting by-product of the Palisades nuclear reactor. The actual product is forever deadly radioactive waste. This cannot be excluded from the EIS because if there is no license extension there will not be an additional 20 years of high-level nuclear waste generated by Palisades. The indoor irradiated fuel storage pool reached capacity in 1993, thus necessitating the utilization of a shoddy technology of outdoor dry cask storage pads at Palisades. (PS-EE-3)

Comment: I've got a lot of questions. One is, are you going to, in the environmental assessment, take into consideration the creation, storage, and transportation of nuclear waste? (PS-M-1)

Comment: We have a high-level nuclear waste dump 3 miles from my home that's going to be continually decontaminated. Somebody is going to have to be in there taking care of this thing for thousands of years to come. This is going to be not just my problem it's going to be my daughter's problem, her children's problem, her children's children's problem. They're all going to have to pay for that as life goes on. Because this stuff is just going to be around forever and there's no place. I've looked at Rocky Flats. I have looked at all of these different places that are producing all this nuclear material, and this country is just teeming with this stuff and we've got no place to put it. We can't find a safe place. Not Yucca Mountain, they've had earthquakes, starting to find aquifer down there, Christ, they've been testing bombs underground there for years and just shattered everything. It's not going to fly. I really wish it was. I really wish all that stuff could just disappear and we could maybe get on with producing electricity this way. (PS-A-3)

Comment: If anything, it is the half-life of the waste materials that not only are produced by the Palisades Plant, 125,000, 150,000 somebody told me today, 150 million years. The half-life for this deadly poison to reduce itself by natural processes after man has intervened to gather it together by unnatural processes. When they have that Yucca Mountain thing if they ever get it organized, which I have some doubts about, to bury all this stuff somebody is going to decide to build a bridge or a mine or something and they're going to go clunk, clunk, clunk, clunk, clunk, and they're going to bust it open having forgotten 100 or 150 or a 100,000 years. And they're going to kill a few hundred million people. That is what the net result of nuclear power is. It is poison. The worst poison, the most long-lasting poison in the history of the world. (PS-I-2)

Comment: If Yucca Mountain were to open in Nevada, there's enough waste in the United States by the year 2010 to completely fill it to its legal capacity. It won't be open by 2010, if ever. And so, I just point out the irony of Consumers' license expiring in the year 2011 and if Yucca were to open, it possibly could take all the waste generated at Palisades up to that point. But, everything made after that point, after the year 2010, is excess to Yucca. And, the second repository in the United States by law would have to be located in the eastern part of the country. Perhaps Michigan? Who knows? Wisconsin? (PS-K-15)

Comment: But, the professionals in the nuclear industry are being very capricious with the fact that, you know, they're generating a lethal waste here. How much more waste will be generated in 24 more years. It is my understanding that if Yucca Mountain were to open tomorrow, which it's not going to happen because they're still having even more problems there, it already is not capable of handling all the waste that is already generated and sitting in storage across the United States. It already could not hold everything that's generated. So, and also I remember reading not too long ago in the Herald Palladium that there was an article about a new transportable dry cask that Palisades will be using from now on. And that's all well and good, but, where is that waste going to go if there is no place for it. This is the most serious environmental, blatant problem that needs to be addressed. The electricity is fleeting. It's created and it's gone, it's used. What's left is the waste. So, the truth of the matter here is the real product is lethal nuclear waste. Electricity is just a by-product. The waste is what is still here and will be here for hundreds of thousands of years and it is lethal and it is deadly. And then, we have to go through the process of finding how to keep it safe. This industry is holding us psychologically hostage. They're creating a waste, and then patting us on the head, and saying, oh, don't worry, we know what to do with it, it'll be safe, blah, blah, blah. (PS-L-3)

Comment: The nuclear waste issue is a huge issue that isn't being addressed. Twenty more years of nuclear waste buildup, where is it going to go? Are we going dump it on the Indians? I mean, that is not right. It is not right to take nuclear waste and track it across country and dump it on native lands. (PS-M-12)

Comment: The accumulation of nuclear waste along the shore of Lake Michigan is not only a potential terrorist target, as is the reactor itself, but there are also problems with the casks themselves, and the geological strata of the area, which includes the unstable sands which the cask pad sets on. Nuclear waste that is headed for dump sites built on native lands is "environmental racism," and more operation and creation of wastes should be considered as such. (PS-DD-2)

Comment: In its Environmental Impact Statement, NRC should also consider another environmental impact concerning high-level radioactive waste ignored by NMC/Consumers in its Environmental Report: the proposed shipment by barge of 125 or more rail-cask sized containers of irradiated nuclear fuel from Palisades to the Port of Muskegon as part of the Yucca Mountain, Nevada, nuclear waste dump proposal. The U.S. Department of Energy describes and documents this proposal on page J-83 of its *Final Environmental Impact Statement for Yucca Mountain*, in Table J-27 ("Barge shipments and ports"). One hundred and twenty-five barge shipments may very well be an underestimate, for DOE assumes only 10-year license extensions, whereas NMC/Consumers is requesting a 20-year extension from NRC. (PS-EE-7)

Comment: What if a barge shipment goes down in the Lake, whether due to accident or attack? What about the potential for a nuclear chain reaction inside the cask involving the still fissile U-235, Pu-239, and other fissile radionuclides present in the waste? What about radioactive contamination of 20 percent of the world's surface freshwater, the drinking water supply for 35 million people downstream? (PS-EE-8)

Comment: Property rights of homeowners on the shoreline and inland from Palisades have been compromised by the "de facto" permanent high-level waste site created. This amounts to implementation of eminent domain without any compensation to property owners. The constant threat of a nuclear accident or act of sabotage has violated property owners' rights. (PS-EE-9)

Comment: When I helped build these plants these fuel containments, these high-level containments, we weren't told anything, only low-level radioactive material would be brought in to

those for refueling the plant. Once it goes through the reactor cycle, it becomes really radioactive. It was going to be sitting in a fuel pool until there would be a national depository to ship it to. That never happened. Now we got it piling up out in these concrete casks, metal casks sitting on the beach out of the high-level containment. (PS-A-6)

Comment: We already have contaminated steam generators and such buried on the site along with contamination of the plant to deal with. Enough. (PS-A-10)

Comment: What happens with the waste? (PS-C-5)

Comment: One of the questions that hasn't come up enough, I think is, what are the plans for the rad waste? Now, old Frank Kelly said a long time back, that nobody knows what to do with a teaspoon full of the stuff. And, we still don't. Sixty years into the nuclear age and we still don't know. So, I think that has to be a very important environmental component of the issue of whether this plant is relicensed. To keep on making this stuff doesn't make sense. There's a whole bunch of questions. There's comments about the dry casks, but, I won't say too much about that except that there they sit. And, I'm wondering how they're going to get to wherever they're going to go on site. And, how they're going to get beyond that, because they're 28 tons each, I understand. And, they're, they can't be moved, transported on the highways at all, or any other commercial fashion. (PS-N-5)

Comment: Let us not forget that we are discussing the continued production for another 20 years of a lethal waste that requires extreme safety control measures. We are not talking about a tootsie roll factory here. The waste product is being stored on the shores of a body of water that constitutes one-fifth of the earth's surface freshwater and which provides potable water to millions of people. Another 20 years of accumulated waste added to the already existing lineup of outdoor dry cask storage situated on unstable sand dunes is a major concern. (PS-CC-2)

Comment: And, oh, I understand, too, that each dry cask holds the equivalent of 250 Hiroshima bombs. Am I outrageous on that statement? Anybody correct me please? The other thing is, I understand the last I knew anyway there are 16 dry casks. Are there more? What's the current quantity? (PS-N-7)

Comment: What about these 29 casks that are loaded? And, it's my understanding they weigh 132 tons each. This is a defacto high level of a nuclear waste dump on the shore of Lake Michigan. And there are no plans to get it out. And, you're going to make more, give them a 20-year extension to make more of this. I have a problem with that. (PS-K-14)

Response: *The comments are related to Category 1 uranium fuel cycle and waste management issues. The comments do not provide new and significant information; therefore, they will not be evaluated further. Issues pertaining to Yucca Mountain and malevolent acts are outside the scope of license renewal and will not be evaluated in the SEIS (see Out of Scope: Separate Proceedings, and Out of Scope: Safeguards and Security).*

Licensees storing spent fuel in an ISFSI under a general license for storage of spent fuel (10 CFR Part 72, Subpart K), as at Palisades, are required to submit documentation registering the use of each cask at their facility in accordance with 10 CFR 72.212(b)(1)(ii). As of October 31, 2005, the NRC has received documentation registering the use of 18 VSC-24 casks and 4 NUHOMS-32PT casks at Palisades.

12. Comments Concerning Alternative Energy Sources

Comment: You know, it's using kind of an old nuclear technology. There are new technologies coming along that are clean and my hope all along, what I can clearly see that immediate nuclear decommission, cleanup, and conversion of the Palisades Nuclear Power Plant and running it on natural gas like the one they do up in Midland. Or hydrogen fuel is the way it must go rather than allowing these nuclear fuel rods storage casks to be piled up onsite. (PS-A-9)

Comment: The time to convert Palisades Nuclear Power Plant is now. I mean this, rather than relicense this and keep running this poor old reactor that's been going for 40 years that was really embrittled, that they're taking old fuel rod assemblies because they're made out of stainless steel that have already been through the cycles and sitting for years in the fuel pool, stuffing them back in the reactor to sop up radiation away from the critical parts that are already embrittled on the reactor vessel, so if I'm getting a little technical here, but you know, I don't really lose sleep at night over thinking I'm living next to this dangerous reaction about to go but, you know, the thing is 40 years old. It's embrittled, folks. If we're going to keep generating power here we need, what they promised us back when we built the thing in the first place, in 40 years a new plant would come along. It didn't happen. (PS-A-11)

Comment: But what we have learned in 40 years is that there's a heck of a lot of ways to make electricity. And if we quit putting all our effort and all our rate payers' money in keeping this dead horse alive and start pursuing some of these new ones and we can do it right out there at that plant because they got a fine turbine that produces a lot of electricity. And as Ralph Nader says they're only boiling water. We just got to boil water to 700 degrees and we've got this electricity. There's a lot of different ways to do it. And I hope everybody here will start pursuing those different ways than keep going this very dangerous way, which for thousands of years to come people are going to have to answer for and pay for, just for a little electricity now. (PS-A-12)

Comment: My husband cannot be here today because he's hosting a class from the math and science center in Kalamazoo. This center serves the brightest students in that area. The class is visiting to learn about our off-the-grid house. Our personal energy needs are met with solar and wind power and we have a very comfortable life there. This can be done. And we hope that our model will become a model for this alternative to be embraced by more people in our area. The utilities themselves have said they want to include more of this. We have a friend, Art Toy, who has run for office many times in our area who put up a really big wind generator because he understood that Palisades was mandated to take that energy by law. But they have put so many barriers in the way of his doing this that it hasn't worked yet. So I would certainly ask that you reconsider putting barriers in the way of citizens who are trying to help with selling excess power to you. It, this State is not doing what some other States more intelligently are doing with this. (PS-C-9)

Comment: Nuclear energy is clean air energy. In that I mean nuclear power plants produce no controlled air pollutants such as sulfur particulates, green house gases. The use of nuclear energy in place of other sources does help to keep our air clean. To put it in equivalent terms, to replace the electricity that Palisades provides it would require approximately 12 million barrels of oil per year or three million tons of coal per year or the equivalent of about 65 million cubic feet of natural gas per year. Those are some of the fossil fuels that having Palisades in the community displaces that would otherwise be needed to meet Michigan's needs. Something that some may not be aware of is nuclear power produces approximately 25 percent of electricity in Michigan, not just the Palisades plant but other nuclear plants as well. (PS-G-4)

Comment: There are ways of making electricity. . . . We could use solar power.

(PS-I-6)

Comment: But that's what happening to solar power. It's coming. And a lot of other good forms of power are coming. And we don't have to depend on the infinitely prolonged death that is represented by nuclear power. (PS-I-7)

Comment: Up north, Consumers Energy has been combining with Mackinaw Wind Power and they're putting up wind generators. It is possible. Wind generator is a clean energy source and it is like Maynard was saying, it's quick. It takes over quick. It doesn't, it's not like building another monster. It's just, you put it up and it starts working. Combination of wind and other systems, and we've got it made here in Michigan and we can keep our water clean. But, if you take that chance and you relicense this facility thinking well, the next issue we will deal with it, we can analyze it. (PS-M-17)

Comment: The second question has to do with the notion that there might be renewable sources of energy as alternatives and I don't know why that wasn't mentioned among the possibilities that you just reviewed. Because, in fact, wind power is a fantastic source of energy and it would come online a lot faster than additional nuclear power plants, which I know are present at a loss. (PS-O-2)

Comment: I just want to reiterate a word about renewable sources of energy. And, I want to do this in the context of something that all you energy folks are very well aware of which is that within 5 years or so, we will have reached a global peak in oil production. And, geologists have been telling us this for 30 years. But, it seems that they were on target and that indeed, that is going to be happening. And, that means production will decrease as demand, globally, increases, and that means prices for the fossil fuels will go up and up and up. And, at this point in time, therefore, it is so important that we do everything we can to not only conserve which we haven't started yet, but also to use more renewables. And, I'm not here to say that it may not be possible, after lengthy public participation in this issue of what the proper mix of energy sources is. It may be possible that nuclear is part of that. Especially in the post-fossil-fuel era. I want this discussion to be a public discussion. (PS-O-3)

Comment: I think we can have a really good public discussion about what the proper mix of energy sources is. And, it may be, because nuclear is clean in some ways, that that may be part of it. I'm not the one to be able to decide. But, in the mean time, there is much that can be done for renewable energy and incidentally, the argument that you only get it 35 percent of the time, doesn't really apply too much, because the grid is all over the country, and if you use that same grid for distribution, there's going to be wind blowing and sun shining someplace in the country. So, that way we'd have a reasonable source of energy to that as well as whatever other options exist, but, there'll be a lot less of it than we enjoy now. (PS-O-4)

Comment: Let's see. Oh, one of things that I think most of us haven't recognized is that when nuclear power came in, the whole electric thing, energy thing became centralized. The little dam up at Newago, and the other one at Big Rapids. All those little energy producers for their area, even though they had a few environmental problems where the silt filled in and it may have destroyed some of the environment, but, still some of those things could have been handled, but, now they're out. They're gone. So, the de-centralization is what needs to reoccur. And, it might even be that we will have solar power, solar panels on our buildings, our church roofs, in the places where it's possible. And, more and more, we're finding it is. (PS-N-10)

Comment: I wish there was another brand new nuclear power plant to take over, like we were all thinking back in the 70s. Three Mile Island happened, none of that's ever happened. (PS-P-3)

Comment: I'd like to say a little bit about alternatives. I thought it was telling when Bob spoke that renewables were mentioned last and very briefly. And, I think Maynard, and earlier in the day, Barb Geisler pointed out the reality of renewables like wind and solar. They're ready to go. They're viable. And I would add in there efficiency and conservation as alternatives to nuclear power. And, something that Mr. Keegan brought up, at a 44 percent rate of operation at Palisades because of all the breakdowns and violations over the years, how does that compare to the wind not blowing? I mean, the last time I checked the sun comes up every day. So, that's a pretty reliable source of energy, I would say. (PS-Q-10)

Comment: You know, it's just that there are new technologies coming along all the time and if we just put half the investment that we put into these old dead industries, that are dying like the nuclear industry. You know, we could have new stuff here that doesn't pollute. (PS-S-4)

Comment: Other sources of energy are available to this country and we are failing to maximize this value and their sustainability, such as wind power doing valuable service in other countries. (PS-BB-2)

Comment: The plant can be replaced by wind turbines which will not be a public liability and which will not endanger the environment and which will produce a profit and not need taxpayer subsidies to maintain. (PS-DD-10)

Comment: In Section 7.0, "Alternatives to the Proposed Action," renewable energy sources such as wind power and solar power, as well as alternatives to Palisades, such as energy efficiency and conservation, are given remarkably short shrift by NMC/Consumers. In fact, polluting electricity sources such as fossil fuels are given by NMC/Consumers as the only realistic alternatives to a 20-year license extension at Palisades. This is self-serving in that Consumers owns and operates fossil-fuel-fired facilities. In fact, in 2002, nearly three-quarters of Consumers' electricity generation came from fossil fuel facilities. Such reports as *Repowering the Midwest* by the Union of Concerned Scientists and Environmental Law and Policy Center; a recent analysis by Amory Lovins at the Rocky Mountain Institute published in the organization's summer 2005 newsletter (see www.rmi.org); cutting edge research and development conducted by the Midwest Renewable Energy Association; deployment by Mackinaw Power of modern, large capacity wind turbines on the northern tip of Michigan's lower peninsula, and plans to deploy more wind turbines on the Lake Michigan shoreline of west Michigan; long-established Lake Michigan shoreline wind power operation by the Traverse City, Michigan, municipal power company; advances in solar electricity by Solar Ovonic in Troy, Michigan (which manufactures solar electricity generating roofing shingles, which could be installed unobtrusively over huge surface areas atop families' homes); advances in solar power technology documented by Steve Strong at Solar Design Associates; and a recent report commissioned by the U.S. Public Interest Research Group (*Redirecting America's Energy: The Economic and Consumer Benefits of Clean Energy Policies*, February 2005) all clearly show that renewables, efficiency, and conservation not only are ready to go, reliable, safe, clean and affordable options for electricity generation and savings, but also the source for tremendous job growth and cost savings. Whereas NMC/Consumers may have a business agenda to ignore and downplay the potential for such promising alternatives to polluting sources of electricity, such as fossil fuels and nuclear power, the NRC should fully examine such alternatives in its environmental impact statement. (PS-EE-28)

Comment: The other night a man named J. Herman, I think that was his last name, who approached, he's a bioneer. If you get a chance to look up bioneers in the Internet or something. And he was talking about his and others' discovery that nature's major source of action, energy, has to do with a spiral type of motion that water flows in a spiral. And there is the answer to our energy problems in the not too distance future. (PS-D-11)

Comment: But I once thought that the hydrogen car was going to be the successor. Now I find out that yes, the hydrogen car leaks at the back end only water, marvelous. What we are not being told is the front end, that you need massive electricity to crack the water and make it into hydrogen so you've got fuel cells. (PS-D-8)

Comment: So there are at least six nuclear plants that are in process, some of them simply were started and not completed earlier. I think the Watts in the TVA [Tennessee Valley Authority] system is one of them. And there are others that are being worked up to provide the extensive amount of electric power needed to make a hydrogen H. So watch it when you talk hydrogen. (PS-D-9)

Comment: I would strongly suggest that you get a chance to listen to Amory Lovens. He has been talking best power energy solutions for years now. One of the last times I heard him personally was talking to the manufactures association over in Lansing. Another time was up at a renewable resources pageant up in Treavor City. (PS-D-10)

Response: *The GEIS includes an extensive discussion of alternative energy sources. Environmental impacts associated with various reasonable alternatives to renewal of the OL for Palisades will be discussed in Chapter 8 of the SEIS.*

Comment: And, I would like to point out in terms of renewables, the job potential. Tremendous job potential. A lot was said about jobs. There's a recent report that the NRC reviewers need to include in this review which is by Amory Lovens of the Rocky Mountain Institute, where he points out that renewables already are leaving nuclear power in the dust in terms of marketplace reality. And, another report by the U.S. Public Research Group shows that hundreds of thousands of jobs could be created through renewables like wind and solar and efficiency measures. And, that could, the Kyoto, the Kyoto global warming quotas could be met in the United States with nuclear power being rolled back 50 percent, we could still meet the Kyoto standards in this country. And so, nuclear power is not the solution to global warming. It would cost too much. It would take too long to build new reactors. (PS-Q-11)

Response: *The socioeconomic impacts associated with reasonable alternatives to renewal of the OL for Palisades will be discussed in Chapter 8 of the SEIS.*

13. Comments Concerning Issues Outside the Scope of the Environmental Review for License Renewal

Emergency Response and Preparedness

Comment: Some of the maps that we have seen show that Grand Rapids, at least the part I live in, is past the farthest circle that's encircled as to what is the interested area. And, yet, that's still not far enough. Fallout goes a long, long way. (PS-N-2)

Comment: In terms of emergency response, I've heard earlier today and tonight a lot of thanks from local officials for Consumers paying for emergency response training and equipping. And so, in the environmental review, I would like to ask that the NRC look at the preparedness of emergency responders in surrounding counties in terms of how ready they are for a major radiation release. How many isolation units are there at local hospitals for radiation victims, who are themselves being contaminated would be a threat to the medical personnel helping them? (PS-Q-12)

Comment: Emergency responders in the 50-mile zone around the Palisades nuclear reactor are inadequately trained and inadequately equipped to respond to a major radioactivity release during an accident or attack at the plant. Even with its modern fire trucks, Covert, Michigan, does not have the staffing, equipment, training, nor preparedness for a major radiological emergency. Covert's best, good as it is, is still no match for a Chernobyl-scale fire. The remainder of the emergency planning and even 50-mile zone is mostly occupied by rural, volunteer fire departments, which have even less equipment and training with which to work. Radiation monitors and radiation-protective gear are in short supply or unheard of. Isolation wards for radioactively contaminated victims (so they don't harm the doctors and nurses and other patients) are very rare, nearly nonexistent at most hospitals within 50 miles. A 1982 NRC report (*Calculation of Reactor Accident Consequences or CRAC- 2*) predicted that a meltdown and large-scale radiation release from the Palisades reactor would cause 1,000 fatalities and 7,000 injuries in just the first year, 10,000 cancer deaths over time, \$52.6 billion in property damage (based on 1980 census, indexed to 1980 dollars, and thus a significant underestimate of impacts given population growth and inflation over the past 25 years). Clearly the community is ill equipped for this risk of catastrophic radiation release which grows more likely the longer the Palisades reactor operates. (PS-EE-23)

Comment: The current Radiological Emergency Response Plan must be reexamined to incorporate population trends and development projecting 20 years forward. Highway systems, including construction projects, must be carefully planned. Transitory populations of migrant workers must be considered. Bilingual notifications and dissemination of information must be made not only available but as a condition of operation. (PS-EE-34)

Response: *Emergency preparedness is an ongoing process at all plants, including Palisades. Each nuclear plant must have an approved emergency plan, as required by 10 CFR Part 50, that is revised periodically and required to be up to date. Emergency planning is part of the current licensing basis and is outside the scope of the environmental analysis for the license renewal. The comments are outside the scope of the license renewal review; therefore, they will not be evaluated further.*

Operational Safety

Comment: I'd ask that you look at the impacts of the global climate crisis on the operations of the Palisades Nuclear Power Plant, more severe weather, fluctuations in lake level which could impact the cooling of the reactor, increases in the temperature of the lake water which could make the operability impossible at Palisades. If the water is too hot, they won't be able to cool the reactor. (PS-B-16)

Comment: Generic analysis doesn't take into account variables such as spills, leaks, accidents, staff problems, lack of reporting, paper conflict with the truth, in other words, inaccurate reporting, climate change, or unexpected events. (PS-M-9)

Comment: A number of times in its Environmental Report, NMC/Consumers mentions, and affirms, the now globally accepted fact that the collective activity of the human race is in the process of altering the climate of the planet (Climate Change). But the Nuclear Energy Institute, of which NMC/Consumers are members, actively suggests that nuclear power may be a strategy to lower the impact of electrical energy generation on this process. But it is also widely understood that mitigation can only change processes in the future, beyond the coming decade or two (and that is optimistic). The effects of past air emissions will govern the changes in weather patterns now documented, and those in the 20-year license extension period. The outlook globally is increasing severity in weather, particularly storms, both in number and intensity and for the Great Lakes Basin, such impacts as increased frequency and severity of tornadoes, rain and lightning storms, temperature extremes in summer and winter, etc. NMC/Consumers fails to analyze the multiple impacts these accelerating changes will have on reactor operations, as well as the ways that it will change the type and magnitude of impact that the reactors have on their external surroundings. Analysis of Climate Change must include an analysis of increased potential for Station Blackout by virtue of projected increased numbers and intensity of tornados and other severe weather. Other factors of Climate Change impact are discussed below with respect to inadequacy of NMC/Consumers' Environmental Report. These factors may be seen as too complex to project and accurately analyze 20 years in the future; however, they are really no more complicated than the complex interactions of NMC/Consumers' financial position, workforce capabilities and human factors, cumulative and synergistic events in aging systems, and multiple failure pathways that should be factored in the analysis of whether component aging will be successfully managed to meet an evermoving target called "current license basis." (PS-EE-29)

Response: *While climate change is a legitimate concern, the specific impacts of climate change within a particular region or watershed are still highly speculative, and are therefore, beyond the scope of a NEPA review for reactor license renewal.*

Safety concerns like adequate cooling of the reactor, potential for Station Blackout, and other day-to-day operations are addressed under the NRC's ongoing reactor licensing and oversight programs. Therefore, the comments are outside the scope of the license renewal review and will not be evaluated further.

Comment: I'm also concerned with the just general mechanics of the nuclear power plant in the Palisades. The, there's a number of components on there that can't be inspected unless it's shut down because of configurations on some J welds that are on some penetrations. They could be cracked, we don't know. (PS-K-7)

Comment: Over the years, we have been privileged to reports by Palisades personnel at our Township Board meetings, keeping us informed on happenings, new procedures, updating of siren warning systems, and just being available to answer questions that arise in our public settings.

The seminars presented by Palisades personnel to provide exposure for the local municipalities, business, and industry to review the plant and safety procedures that are in place as well as having contact personnel for our comments and questions is indeed beneficial. Mark Savage, a Palisades employee as well as property owner in Geneva Township, is always available to review any concerns that arise. (PS-Y-4)

Response: *Safety concerns like components inspections and safety procedures are addressed under the NRC's ongoing reactor licensing and oversight programs. To the extent that the comments pertaining to such concerns are within the scope of license renewal, these issues will also be addressed during the parallel safety review performed under 10 CFR Part 54. However,*

they are outside of the scope of the license renewal environmental review, and therefore, will not be evaluated further in the context of the environmental review.

Comment: One thing that really bothers me about this whole process is that it's the fox in the hen house that's doing the reporting. All this data is being collected through Palisades. I talked to someone who used to work at Palisades, they no longer work there. They said they would not ever work there again. They work at another nuclear power plant. I said, well, why, you know, is it because, like at DC Cook, they did a coverup, you know, on their condensing systems where for 10 years they covered up the fact that their ice condensers would not work in the event of a meltdown? And, he said, no. He said they don't cover things up. He says they just don't report things. So, you know, wool being pulled over the eyes, there are a lot of probably things that are not reported. (PS-M-7)

Comment: The NRC analysis and data collection I believe is a flawed system. Too much is left to the reporting by the nuclear industry itself, and the use of generic models to project aging features is not realistic, as each nuclear reactor has a specific set of unique problems, and differentials, including weather, changes in staffing, and a host of other issues not projected by generic analysis. (PS-DD-3)

Comment: Further, I would ask as I have at public meetings, that certain essential elements not be excluded from evaluation.

2. The track record of Palisades. The lack of reporting problems, and the problems that have been found.

3. The history of the standards by which Palisades has been overseen by the NRC, including a list of the times when the NRC made concessions to the facility in lieu of prior standards and regulations. (PS-DD-6)

Response: *Reporting requirements are established by the agencies that grant permits to the Palisades Nuclear Plant, such as the NRC and the Michigan Department of Environmental Quality. NRC licensees are required to submit annual reports of the results of their radioactive effluent releases and radiological environmental monitoring programs. The monitoring programs and results are subject to periodic NRC inspection. State agencies may also also conduct periodic independent reviews. Routine operational inspections of the plants are conducted daily by onsite NRC inspectors. NRC inspection reports are available to the public through the NRC's Public Document Room or from the NRC's Agencywide Document Access and Management System (ADAMS) available online at <http://www.nrc.gov/reading-rm/adams.html>, and through the NRC's Reactor Oversight Process Web site at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>.*

Anyone with operational safety concerns is encouraged to bring them to the attention of the NRC project manager assigned to a specific plant. The list of NRC project managers is located at <http://www.nrc.gov/reactors/operating/project-managers.html#pwr>. This page also contains a quick link to the NRC telephone directory. The comments are outside the scope of the license renewal review; therefore, they will not be evaluated further.

Comment: I live outside of South Haven, so Consumers is my electric company. And, I remember reading in the *South Haven Tribune* once that they were cited for safety violations, and this was a long time ago. This was in the 80s. The operations manager of the plant said that he was going to ask for a rate increase. And, I thought, you put my life in danger, you endangered my safety, and now you're going to raise the rates to pay for your fines. And, I wasn't real happy about that. And then, I met somebody in '86, he said that he worked there and

he said that there was a drug problem there, and that they fired a bunch of employees who were on cocaine. Now, again, this is just rumors, but I know my ex-husband had a friend who was a pipe fitter who went there to get a job. And, he said when he applied, they gave him a paper that told him how to beat the drug test. And, I hope that's not true, but, that's what he said. (PS-M-20)

Comment: You got people here that want to be in denial for economic reasons. They want to keep making a good profit. I don't blame them. But my God man, when they don't want to know if there's anything wrong with a plant that frankly has a, has a horrible history. It had a, in '93 it had the worst, it was ranked the worst plant in the country out of 111 plants in NRC violations. It has piled up a lot of violations. The picture is not rosy at Palisades. It's the second oldest operating nuclear power plant in the country. (PS-A-8)

Comment: Oh, the thing about fines. It really was a blow to me when I began to understand that fines are considered a cost of doing business. They are not specific to anybody who might be responsible. I understand that now in Italy, there is a company that has had some, and I'm sorry, things are getting a little weak here and there. The plant, a very serious plant problem in Italy where the individual managers were charged with the crime and I understand that 25 of the 28 charged are now in jail. That's not a fine, another fine that comes out of our pockets. And, I know you're nice guys. (PS-N-11)

Comment: Have you a record currently on the penalties that have been given to this power plant and the times it's had to be turned off? And, does that have any influence on relicensing? Do you have a record of that? (PS-V-1)

Response: *Current operational performance information is available via the NRC's Reactor Oversight Process Web site at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>. Anyone with operational safety concerns is encouraged to bring them to the attention of the NRC project manager assigned to a specific plant. The list of NRC project managers is located at <http://www.nrc.gov/reactors/operating/project-managers.html#pwr>. This page also contains a quick link to the NRC telephone directory. Operational safety issues are outside the scope of the license renewal review and will not be evaluated further in the SEIS.*

Safeguards and Security

Comment: The final issue I would like to raise and it's, it's again a direct challenge to the NRC is the lack of consideration of the possibility of a terrorist attack on Palisades. The NRC commissioners themselves have ruled that terrorism is too speculative to consider during licensing proceedings. And we would like to have on the record that we challenged that given some of the things I brought that 35 million people downstream drink the water of the Great Lakes. So it is indeed a potentially catastrophic target and it needs to be taken into consideration as well. (PS-B-20)

Comment: And we are creating more and more of it everyday at every nuclear plant. And that includes Palisades. And they don't know what to do with it. And they've got it stacked up in casks out on the shore of Lake Michigan piled high waiting for some terrorist to drop a bomb on them or something. Full of deadly poison, nuclear radiation that is the net product of this wonderful safe, clean atomic power that we're being sold. (PS-I-3)

Comment: That's another thing that this whole process doesn't seem to realize, the possibility of nuclear terrorism, unexplained, unexpected events. (PS-M-10)

Comment: It is also not right to store it on the shore of Lake Michigan, where there could be nuclear terrorists or something and just totally wipe out the fresh, that huge wonderful freshwater resource. (PS-M-13)

Comment: If you do shut it down make sure to budget 50 armed men to guard all that death stored on the dunes! (PS-AA-3)

Comment: Located on the shoreline of Lake Michigan, the source of tourism, drinking water, fish, recreation, and other economic value to tens of millions of people downstream, Palisades represents a target for potentially catastrophic terrorist attack or sabotage intended to release large amounts of radioactivity into the Great Lakes Basin. Palisades represents a radioactive bull's eye on the shore of 20 percent of the planet's surface freshwater, the Great Lakes. The operating reactor (containing many billions of curies of radioactivity) and high-level waste storage pool (containing tens to hundreds of millions of curies) are vulnerable to such attack, as are the outdoor dry storage casks, so highly visible, stored in the open air, in plain sight. (PS-EE-24)

Comment: In the post September 11, 2001, era of heightened concern about national security, there exists a great potential for the violation of civil liberties of the citizenry of the surrounding area. What will be the ramifications and implications to the peoples of these environs when there are enhanced security measures taken regarding Palisades? For example, walking along the beach, recreational use of the Lake and adjacent parks, driving down the highway, public protest, and rights of assembly. Civil Liberties must be considered in this EIS process. (PS-EE-35)

Response: *The NRC and other Federal agencies have heightened vigilance and implemented initiatives to evaluate and respond to possible threats posed by terrorists, including the use of aircraft against commercial nuclear power plants and ISFSIs. Malevolent acts remain speculative and beyond the scope of a NEPA review. The NRC routinely assesses threats and other information provided to it by other Federal agencies and sources. The NRC also ensures that licensees meet appropriate security levels. The NRC will continue to focus on prevention of terrorist acts for all nuclear facilities and will not focus on site-specific evaluations of speculative environmental impacts. While these are legitimate matters of concern, they should continue to be addressed through the ongoing regulatory process as a current and generic regulatory issue that affects all nuclear facilities and many activities conducted at nuclear facilities. The NRC has taken a number of actions to respond to the events of September 11, 2001, and plans to take additional measures. However, the issue of security and risk from malevolent acts at nuclear power plants is not unique to facilities that have requested a renewal to their license and, therefore, will not be addressed within the scope of the SEIS. The comments are outside the scope of the license renewal review as set forth in 10 CFR Part 51 and Part 54; therefore, they will not be evaluated further.*

Aging Management

Comment: There are the problems of deterioration of the plant. What happens after 20 years and another 20 and another 20? (PS-C-4)

Comment: First that I'll note if you've ever driven an old car I imagine some of you have, but you know that the older it gets the more it breaks down, the more different parts break down, at least on my old cars. And you never know when they're going to break down. And I think we all agree I'm not sure how old the Palisades Plant is but it is getting old by nuclear reactor standards. And the chances of it breaking down are greater and greater every year. (PS-J-4)

Comment: Because to me this plant is so old that it would literally have to be rebuilt in order to continue for another 20 years. (PS-L-2)

Comment: This generic analysis of nuclear reactors as far as aging. You take a nuclear reactor in sunny California, it's going to age differently than a nuclear reactor in freeze and thaw conditions here in Michigan. There are so many variables. (PS-M-8)

Comment: I don't know if it's true or not, and this is a question for the group here to answer, is that, this is an older plant, and there's some problem potentially with embrittlement in the container or in the core. And, I would like to know how serious that is and whether that needs to be fixed or replaced prior to being, having the license be done. (PS-O-1)

Comment: This plant is old and primed to fail in some way or another and affect the lives and futures of thousands of residents in southwest Michigan. (PS-BB-1)

Comment: The aging of component parts must be taken into consideration and evaluated for potential safety-significant failures over the course of a 20-year license extension. Examples of such age-related failures at Palisades just in the recent past include failure of the Control Rod Drive Mechanism (see PNO-III-04-010 August 11, 2004); Relief Requests for Reactor Vessel Head Penetration problems (NMS Request 10/4/04); Manual Reactor Trip / Main Condenser Vacuum (See Event # 41319); Emergency Declared on Primary Coolant System Integrity (See Event # 41681). Age-related failure of safety-significant systems could initiate the sequence of events that leads to PTS that ruptures Palisades' dangerously embrittled reactor vessel, causing catastrophic radiation releases into the Great Lakes Basin. Frighteningly, NMC repeats countless times in its Environmental Report (as an excuse for not having to do any additional environmental impact analysis on various issues) that "NMC does not plan to undertake major refurbishment for Palisades license renewal." (As discussed in Section 3.2, and elsewhere throughout the Environmental Report) (PS-EE-27)

Response: *Safety concerns like components aging management are addressed under the NRC's ongoing reactor licensing and oversight programs. In addition, the intent of the NRC's license renewal safety review is to determine if the licensee has adequately demonstrated that the effects of aging will not adversely affect any systems, structures, or components identified in 10 CFR 54.4. The license renewal safety review process includes site inspections to assess whether the applicant has implemented and complied with the regulations for license renewal. The review results in a publicly available SER available online at <http://www.nrc.gov>. The comments provide no new and significant information; therefore, they will not be evaluated further in the context of the environmental review. However, the comments will be forwarded to the project manager for the license renewal safety review for consideration.*

Comment: To go back to the other issues someone brought up about isn't it easier or better or safer to simply rebuild the plant? And, I have heard the term that retrofit is cheaper than repairing damages. Is that true, and how much retrofitting will be done, and what kind of criteria do you use? What percentage of retrofitting would you expect would be economically feasible, or environmentally? (PS-N-1)

Response: *The applicant has stated that no refurbishment is required as part of the license renewal application. However, daily inspections and maintenance are part of routine operations. Safety concerns like components aging management are addressed under the NRC's ongoing reactor licensing and oversight programs. In addition, the intent of the NRC's license renewal safety review is to determine if the licensee has adequately demonstrated that the effects of aging will not adversely affect any systems, structures, or components identified in 10 CFR 54.4. The license renewal safety review process includes site inspections to assess whether the applicant has implemented and complied with the regulations for license renewal. The review results in a publicly available SER available online at <http://www.nrc.gov>. The comments provide no new and significant information; therefore, they will not be evaluated further in the context of the environmental review.*

Pressurized Thermal Shock (PTS)

Comment: And I'll start out with perhaps the greatest danger at Palisades, which is the embrittlement of the reactor core. And so what we would request is that the Nuclear Regulatory Commission in its review look at the potential for a catastrophic accident, a rupture of the reactor core due to pressurized thermal shock. And the possibility then the potential for a catastrophic radiation release into the environment which would ensue because once the reactor vessel ruptures there's no way to control the nuclear reaction. So the possibility for the so called China Syndrome, the molten mass of nuclear fuel melting through the concrete floor of the facility and into the groundwater causing massive radioactive steam escape is, is a possible scenario. And so of course you'd have to look at the fact of downwind fallout from that. And also the fact that ten million people just on Lake Michigan draw their drinking water from Lake Michigan and if you include the entire downstream Lake Michigan, not Lake Michigan, Great Lakes population we're talking 30 to 35 million people. So I would ask that you look not only at the airborne fallout but also the waterborne fallout to as many as 35 million people downstream. (PS-B-5)

Comment: But I would point to two very large promises made by Consumers that kind of start to question the believability of the company. And one would be the promise many years ago that the company would anneal the reactor vessel to return elasticity to the embrittled reactor vessel. To the best of my knowledge I, I believe it's fair to say that's not happened. (PS-B-14)

Comment: As I understand it, Palisades has an embrittled core which could shatter and cause a meltdown. (PS-C-11)

Comment: The embrittlement, I reviewed that extensively and I've got, I don't have with me, but I do have a motherload of documents that are currently with my attorney and you exceeded, Palisades exceeded the embrittlement standards in 1981. And, the NRC capitulated by rolling back the standards and at my count, you've now rolled them back, changed methodologies five times. I'm a social scientist. I'm trained in the scientific method of research and design. And, I can spot some problems, major problems with your methodologies. (PS-K-6)

Comment: I wanted to talk about the screening criteria that were mentioned earlier by Bob from the NRC. And, Mr. Keegan mentioned five reevaluations of the embrittlement of the reactor vessel at Palisades. And we see those as relaxations. And that's why in our contentions against the 20-year license extension we will go into great detail on how dangerous this situation is. Probably the most embrittled reactor in the United States. And, it's really taking a big gamble to try to operate this dangerous facility for another 20 years. And, I have a big question about Consumers Energy's promise in previous years to anneal the reactor vessel. That was a promise made publicly. I saw an article from years ago in the *Kalamazoo Gazette* where Consumers indicated that it was going to anneal the vessel. And so, we have a question as to

why that never happened. And, I would hope in the environmental review that that would be addressed. What changed? Why was that promise not kept? (PS-Q-2)

Comment: When I hear these rosey pictures painted of a reactor vessel, when, you know, there's another way to put that. We're taking old fuel assemblies from back in the 70's and whatnot, stainless steel ones and sticking them up against the reactor wall because we're worried about the embrittlement, we're worried fractured reactor wall here. We don't, we hope that these things will sop up the radiation, help it from getting out. That's another way of saying what you just said and, I keep hearing this stuff just over time from so many different sources within the nuclear industry. And even time to time from the NRC from the, just explaining things away like I'm sitting here watching TV advertising every night or something. (PS-P-1)

Comment: The embrittlement of the Palisades reactor pressure vessel and the unresolved Pressurized Thermal Shock (“PTS”) with ever-increasing likelihood of the failure of the reactor pressure vessel (“RPV”) warrant special environmental considerations. This type of accident is “Beyond Maximum Credible Accident” scenarios, a beyond design basis – and yet all too possible – accident for the reactor. Any EIS which is conducted must incorporate the outcome of such a catastrophic accident. A 1982 NRC report (*Calculation of Reactor Accident Consequences or CRAC- 2*) predicted that a meltdown and large-scale radiation release from the Palisades reactor would cause 1,000 fatalities and 7,000 injuries in just the first year, 10,000 cancer deaths over time, \$52.6 billion in property damage (based on the 1980 census, expressed in 1980 dollars, thus significantly underestimating current and future impacts due to population growth and inflation). The Palisades nuclear power station has been identified as prone to early embrittlement of the reactor pressure vessel, which is a vital safety component. The longer Palisades operates, the more embrittled its RPV becomes, with decreasing safety margins in the event of the initiation of emergency operation procedures, such as activation of the emergency core cooling system. Moreover, there are rumored problems with the safety culture at the plant which might inhibit candor in staff communications about embrittlement-related problems in operations and procedures. Therefore, given the public health and safety effects of a prospective additional 20 years of operation, and given the present and prospective embrittlement trend of the RPV, it is imperative to protect the interests of the public by denying such a 20-year license extension. (PS-EE-1)

Response: *Fracture toughness requirements for protection against PTS events are set forth in 10 CFR 50.61, which specifies screening criteria and provides options for licensees to meet PTS requirements if the screening criteria are expected to be exceeded. The most recent NRC assessment of Palisades' compliance with 10 CFR 50.61 is documented in a safety evaluation dated November 14, 2000 (Accession Number ML003768794). Safety issues that are effectively addressed and maintained by ongoing agency oversight, review, and enforcement are outside the scope of the license renewal environmental review and, therefore, will not be addressed within the scope of the SEIS. However, to the extent that the comments may relate to managing the effects of aging during the license renewal term, the comments will be forwarded to the project manager for the license renewal safety review for consideration.*

Comment: This is a follow-up on what all three of you just talked about, I guess, in terms of embrittlement. It's my understanding, correct me if I'm wrong, Rani, I guess, that the specimens have been exhausted within the reactor vessel so that the best that can be done now is extrapolation from the most recent samples, which, is that accurate? (PS-Q-1)

Comment: Does Palisades have samples anymore? Or, are they completely out? (PS-Q-2)

Comment: I need to know for the record are the original samples still within that reactor? Because my understanding, reading Consumer Power documents, that they've exhausted that on the ninth refueling. (PS-K-3)

Comment: I need that point of clarification and I need to know specifically at Palisades. (PS-K-4)

Response: *The Palisades reactor vessel material surveillance program is described in Section 4.5.3 of the Palisades Final Safety Analysis Report (FSAR). The schedule for removal of surveillance capsules is provided in FSAR Table 4-20. The most recent capsule removal from the reactor vessel occurred during refueling outage number 16, in March 2003. Based on the schedule provided in the FSAR, three vessel wall surveillance capsules and one "thermal" surveillance capsule (located in a low flux region above the core) remain in the reactor vessel. The capsules are currently scheduled to be removed from the vessel for analysis during refueling outage numbers 19, 26, and 29. Changes to the capsule removal schedule are subject to NRC review and approval in accordance with 10 CFR Part 50, Appendix H.*

Decommissioning Date

Comment: Okay, so this is projected for, to 2031 and then what? Is there going to be another redoing. Or, is that going to be a decommissioning and then how do you handle the jobs problem, and so on and so on. I haven't seen any plans on that, but that should be part of a relicensing project, you know, how do we get out of that. Like, how do we get out of Iraq, et cetera. (PS-N-9)

Comment: Over the years I've heard a lot of decommissioning dates for Palisades. One is the current decommissioning date of the license – When can we expect this thing to close? Because I've been hearing for, you know, 20 years. What is the date now? (PS-P-1)

Response: *Nuclear power plants cease operation for a variety of reasons. The NRC grants an OL for a period of 40 years. Licensees can seek to renew an OL for an additional 20 years, or can cease operations before the 40-year licensing period has been completed. Reasons for the decision to decommission can be financial, or the NRC can order the licensee to cease operation for safety reasons. The comments are outside the scope of the license renewal review; therefore, they will not be evaluated further.*

Dry Cask Storage

Comment: I'd ask you to look at the situation with the dry cask storage at Palisades. I, I'd point to the, the problems with the pads themselves, the old pad so close to the lakeshore. And as well as the new pad farther inland. The violation of NRC regulations associated with those pads. And I'd ask you to look at the, the faulty casks that are at Palisades. That was one thing I wanted to bring up just as a general overarching theme is for instance you depend on Consumers itself, Nuclear Management Company, to provide you with monitoring data. (PS-B-13)

Comment: Also the geological strata underneath the plant, the shifting sands, the impermeability of it? (PS-M-2)

Comment: The Palisades plant is in a location where there is singing sand. It's one of four locations on the planet to have this singing sand. The granules are round. If you walk on them,

they call it singing sand, because you'll hear them make a noise. But, the point is, they give you no footing. They're subject to blowouts, which means a big wind comes in and blows out a bluff. The dry cask storage, the pads are sitting right there where a big blowout could come in and cover them. The, so you go into seismic questions. Well, yes, if there was an earthquake, you've got, now you've got this sand that's going to shift. So, singing sand, this is definitely something that is site specific. There are only four locations in the world that have it. It was a major issue. It continues to be so. (PS-K-9)

Comment: And, I would like to talk about waste. That's come up a lot. Both pads at Palisades are in violation of NRC earthquake regulations. So, therefore, Palisades has no safe place to store high-level radioactive waste that meets NRC regulations. The pool is full. The pads are in violation of regulations. (PS-Q-6)

Comment: Both the older pad nearer Lake Michigan and the newer pad further inland are in violation of NRC earthquake regulations. 10 CFR § 72.212(b)(2)(i)(B) requires that: Cask storage pads and areas have been designed to adequately support the static and dynamic loads of the stored casks, considering potential amplification of earthquakes through soil-structure interaction, and soil liquefaction potential or other soil instability due to vibratory ground motion. . . .

According to expert, Dr. Ross Landsman, former U.S. Nuclear Regulatory Commission Region III dry cask storage inspector, the older pad violates the liquefaction portion of this regulation, and the newer pad violates the amplification portion of the regulation. Neither the older nor newer dry cask storage pads at the Palisades plant are in compliance with this cited regulation. Nuclear waste and dry cask storage cannot be omitted from EIS considerations because they are an inevitable, adverse outcome of continued operation of Palisades for an additional 20 years on top of the original 40-year license. (PS-EE-4)

Comment: The more casks loaded on the storage pads at Palisades, the more risk of erosion to the sand supporting the pads, given the large weight of the casks themselves (VSC-24 casks weigh 132 tons each), weather-related erosion of the sand dunes, as well as the erosion that will occur due to more severe weather impacts from the global climate crisis and climate destabilization. Arresting erosion at both pads is important to safety and radiation containment over the long haul, given the proximity of the waters of Lake Michigan. The State of Michigan and the U.S. Army Corps of Engineers have designated the sand dunes upon which the older pad is located – so close to the waters of Lake Michigan – as a high-risk erosion zone. The Lake Michigan dunes are subject to "blowouts" where entire dunes are blown out during wind storms and lightning strikes. See Nori, P. Sholtz, and M. Bretz (Department of Physics, The University of Michigan), "Sound-Producing Sand Avalanches," *Scientific American* Vol. 277, No. 3 (September 1997). At Warren Dunes, some 35 miles south of Palisades, sand blowouts have been estimated to travel as much as one-quarter mile per day, exposing 5,000-year-old trees that have long since turned to charcoal. "Some chilling facts about Dunes history," See: www.nwitimes.com/articles/2005/07/25/news/region/0256d4c429632.

The Palisades dunes could, in a wind storm or lightning strike, shift, blow, and cover the dry cask storage area. This would in turn block the ventilation vents on the dry casks, causing the irradiated fuel within to overheat beyond technical specifications. As weather patterns intensify (as anticipated, due to global warming), this potential for erosion will increase. Additionally, the dunes and shoreline are geologically prone to sand avalanches. A sand avalanche coupled with a seismic event could compromise the integrity of one or more casks at Palisades. In fact, an earthquake at the older pad nearer the lake could cause casks to fall into the waters of Lake Michigan. Not only could radioactive contamination of Lake Michigan result, but, given the uranium-235, plutonium-239, and other still-fissile radionuclides present in the irradiated nuclear fuel, the infiltrating water could cause a nuclear chain reaction in the

submerged cask itself, further endangering Palisades workers, emergency responders, the public, and the Lake Michigan ecosystem, source of drinking water – and so much more – to 35 million people downstream throughout the Great Lakes Basin. NMC documents the potential for sand dune blow-outs at Palisades in its Environmental Report, such as on Page B-6, where sand dune blow-outs are described as comprising part of the overall Palisades nuclear power plant site. NMC/Consumers also acknowledges sand dune blow-outs on Page 2-19 of its Environmental Report: “Sand dune blow-out communities (see Table 2.3-2, Community 10) occur where wind action has resulted in dune destabilization.” In Table 2.3-2, the Environmental Report acknowledges that 4 percent of the Palisades site comprises a “Sand Dune Blow-Out Community.” Of the remaining 13 percent of the Palisades site comprised of Beach Grass Stabilized Dune Community, Beach Grass Stabilized Flats, and Open Sand, one must wonder not if but when future sand dune blow-outs will occur. (PS-EE-12)

Response: *The requirements regarding spent fuel storage, codified in “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste” (10 CFR Part 72), have no relation to the license renewal process and are outside the scope of the license renewal environmental review. To the extent that the comments address Category 1 issues related to the fuel cycle and high-level waste, the comments provide no new and significant information; therefore, they will not be evaluated further.*

The NRC issued an independent safety assessment on September 20, 1994 (Accession Number 9409260239), in which the staff concluded that the location of the original storage pad is acceptable to support storage casks against all effects of the design-basis earthquake and other postulated natural hazards. Region III identified two unresolved items with the newly constructed ISFSI pad (NRC Inspection Report No. 07200007/2004-002; Accession Number ML042510075). The unresolved items are related to NMC’s translation of the safe shutdown earthquake from the reactor site to the ISFSI pad, and its assessment of the subsurface bearing stability beneath the ISFSI pad. NRC staff is currently reviewing these unresolved items. Resolution of the unresolved items will be documented in a future inspection report.

Comment: And I'd also bring up the faulty casks. Back in June of 1994, a cask was loaded with high-level waste. Consumers had promised that if they had problems with the casks they promised this in court under oath, that they would return the fuel to the pool. Well, it just so happens that the fourth cask to be loaded out there had defective welds and here we are 11 years later and that cask is still loaded fully with high-level waste that has not been unloaded. So I would look at the deterioration of the casks over time and the lack of an unloading procedure. There's been no demonstration of it at Palisades or anywhere else to my knowledge. (PS-B-15)

Comment: To honor your request that new issues be brought forward, regarding the dry casks, we intervened, Don't Waste Michigan intervened in 1993. We went to district court, U.S. District Court, on May 4, 1993, announcing that we wished to intervene. The court set a date of May 6 for us to intervene. On May 5, Consumers Power generated a document with unloading procedures for the casks. When we went to court the next day, the judge said there is no irreversible harm here because they have this unloading procedure that this can be undone. Lo and behold, this can't be undone. Cask number four has not been unloaded. It was promised to be unloaded. These casks, no unloading has occurred industrywide. There is a potential for a huge steam, radioactive steam release if this was unloaded. It would have to be under water. It's a complex issue, but, this is unresolved. But, basically, Consumers Power and the NRC did perjure themselves in federal court on May 5, a document, it was May 6, I think we presented that. And, because of that, the judge would not rule for a temporary restraining order because it

was perceived to be reversible. Lo and behold, years later, Mary Sinclair, Dr. Sinclair, came across documentation showing that this cannot be undone. (PS-K-13)

Comment: And, they can't take them apart, even though that was the original plan, because there's something about the shims that were used to keep the lid in tight. And, if they take the lid off or the shims out they could fall into the already deteriorating contents of the dry casks. (PS-N-6)

Comment: Additionally, in 1993, Consumers Power (now Consumers Energy) assured a federal district judge that if it encountered problems with loaded dry casks at Palisades, it would simply reverse the loading procedure and return the high-level radioactive waste to the storage pools. But the fourth cask loaded at Palisades, in June 1994, was shortly thereafter admitted by Consumers Power to be defective, having faulty welds. However, 11 years on, Consumers has yet to unload the defective cask, because it cannot. Don't Waste Michigan, which actively opposed the loading of the dry casks in the first case in 1993, holds that Consumers perpetrated a fraud upon the court and the public, with the complicit support of the NRC, and that Consumers has critically undermined its credibility as to any pledges about the safety of dry cask storage. The significance of this problem with cask #4 is considerable. For example, the configuration of the 18 to 19 dry casks currently stored on the older pad nearer Lake Michigan is such that the casks farthest back cannot be moved or unloaded until all other casks in front of them have been moved out of the way first. This configuration increases the risks, making it very difficult to address emergencies involving certain casks in the configuration in a timely manner. (PS-EE-5)

Comment: Another issue that demands attention by NRC in its environmental impact statement is the disconcerting proximity (just several hundred feet away, according to maps appearing in the Environmental Report) of the Van Buren State Park campground to the newer, more inland dry cask storage pad for high-level radioactive wastes at Palisades. What are the radiation dose rates that families camping at the State Park would suffer from those nearby dry casks? What are the security and safety implications of having high-level radioactive waste stored so close to a campground? (PS-EE-6)

Comment: To mitigate the prospect of increased embrittlement of the reactor pressure vessel (RPV), the Palisades operator uses previously irradiated fuel to create a buffer next to the RPV wall. The second use of irradiated fuel assemblies in the reactor core tends to weaken and damage the cladding on the fuel rods, making future waste handling, storage, transport, and ultimate disposal – whether onsite at Palisades, in transport, or at future storage/dump sites – problematic. It poses an elevated risk for the safety of Palisades workers and the general public. Moreover, the U.S. Department of Energy (DOE) depends on the integrity of the fuel cladding as a means of preventing or minimizing the risk of unanticipated fissioning in storage and transportation casks or other units, as well as a means of delaying radiation releases from waste burial into the groundwater at the proposed Yucca Mountain (Nevada) dump site. (PS-EE-16)

Comment: One commenter provided a copy of a letter to the Editor (Accession Number ML052420501) in which the commenter stated his concerns related to dry cask storage of spent fuel at Palisades. (PS-GG-1)

Response: *The requirements regarding spent fuel storage, codified in "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste" (10 CFR Part 72), have no relation to the license renewal process and are outside the scope of the license renewal environmental review. To the extent*

that the comments address Category 1 issues related to the fuel cycle and high-level waste, the comments provide no new and significant information; therefore, they will not be evaluated further.

Separate Proceedings

Comment: In addition, it's been brought up that Yucca Mountain is also highly in doubt and it's also an environmental justice violation itself because it's Western Shoshonee Indian land in Nevada. And they don't want it. It's also an earthquake zone that leaks into the underlying drinking water supply. I'd also like to point out that another proposed dump site at the Skull Valley Goshutes Indian Reservation in Utah is an environmental justice violation. So, these are the two leading long-term solutions, so called, for this nuclear waste problem. Two Indian lands out west. (PS-Q-7)

Comment: And, you mentioned earlier, I think you mentioned it tonight, too, that environmental justice is something you consider in this environmental review. So, certainly the environmental justice violations at Yucca Mountain and Skull Valley, Utah, need to be considered. (PS-Q-9)

Comment: Additionally, any waste generated at Palisades after 2010 would be excess to the capacity of the proposed national dump at Yucca Mountain, Nevada, according to U.S. Department of Energy projections in its *Yucca Mountain Final Environmental Impact Statement* (February 14, 2002), as revealed in Tables A-7 and A-8 on pages A-15 and A-16 of Appendix A. In fact, the waste generated at Palisades from 1971 to 2010 may also be excess to Yucca, in that the proposed but highly troubled and long delayed dump may never open. The State of Nevada maintains that NRC's "Nuclear Waste Confidence Decision" is erroneous, in that it biases NRC to favor approval of the Yucca Mountain dump license lest it, NRC, be proven wrong in its assurance to the public that a high-level radioactive waste geologic repository will open in the United States by 2025. Because so much uncertainty surrounds the Yucca Mountain dump proposal, as well as other high-level radioactive waste dump proposals (such as the Private Fuel Storage, LLC dump targeted at the Skull Valley Goshute Indian Reservation in Utah), it is our collective contention that waste generated at Palisades during the 20-year license extension could very well be stored at Palisades indefinitely, a scenario inadequately addressed by the applicant and NRC. Because the casks cannot be transported, because the casks cannot be unloaded, what has been created is a "de facto" permanent high-level waste site. (PS-EE-10)

Comment: One commenter provided a paper titled, "Environmental Racism, Tribal Sovereignty and Nuclear Waste" (Accession Number ML052420502). The paper opposes storage of spent fuel on Goshute Indian Tribal lands in Skull Valley, Utah. (PS-FF-1)

Response: *The licensing requirements of the independent storage of spent nuclear fuel is outside of the scope of the license renewal. The regulations pertaining to this issue can be found at 10 CFR Part 72. The Waste Confidence Rule (10 CFR 51.23(a)) is applicable to Palisades and states that "[t]he Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations."*

Process

Comment: Allow us to continue through our cycle. All these kinds of lax, this kind of cozy arrangement between the Nuclear Regulatory Commission and the utility it's all self-serving. The bottom line is, who's regulating this utility? It is the public. And, it's not going to be the NRC who is going to come down heavy on these folks. It's going to be the public who's going to force them. (PS-K-8)

Response: *Comment noted.*

Comment: I heard from Consumers especially that this plant is safe. And so, my question is Consumers willing to voluntarily give up its Price Anderson Act protection. If this facility is so safe, then why do you need liability protection provided by the U.S. taxpayers? Simply get rid of that, and I'll believe you a little bit more. Because then the liability will be where it belongs, which is with the owner and the operator of the nuclear power plant. And, of course, you'll be a lot more careful if that \$500 billion bill for damages that's possible was on your books instead of the public's. (PS-Q-4)

Response: *The Price Anderson Act is outside of the scope of license renewal. The comment provides no new and significant information; therefore, it will not be evaluated further.*

Comment: And, I'd like to talk about the NRC's nuclear waste confidence decision. This is a document that NRC first put out in 1984 and has revised a number of times where we cannot bring up nuclear waste as an issue during licensing proceedings like this, because it's covered. They say we have confidence that by the year 2025, at least one dump, burial site will be open in the United States. Nevada has challenged that, because the only site under consideration is Yucca. And NRC is supposed to be an unbiased objective judge of the Yucca site, whether it should be licensed or not, but, of course, if NRC rules against Yucca, they prove themselves wrong. There will not be a burial site by 2025. So, that nuclear waste confidence decision is very shaky and needs to be withdrawn and waste needs to be a part of this proceeding. (PS-Q-8)

Response: *The comment challenges the Commission's regulations, in particular, the Waste Confidence Rule (10 CFR 51.23(a)). This is outside the scope of the license renewal process and will not be evaluated further.*

Need for Power

Comment: I also question whether we automatically say there will be and can be and should be increased energy use. I think with what we know now about being on the other side of the fossil fuel curve that no matter what we will have to learn to conserve energy, we will have to learn to use less energy. Perhaps nuclear will have to be part of that process for a time. But we cannot use as much as we're using now and we certainly can't increase our energy use in the future. That will simply be impossible unless something is invented which we don't know about and which I think is unlikely. And to say oh, hydrogen or whatever will save us I personally have my doubts. (PS-C-7)

Comment: Atomic, well, first of all, electricity energy demands will continue to increase and therefore we continue, we need to continue to build electrical generating plants of nature, one nature or another. (PS-E-2)

Comment: So my answer is that you've already got so much of this stuff that you don't know where to put it why make more. They have closed that plant down many times since I've lived out here, since 1972. And we have never had a shortage of electricity. We were told if they

ever closed that plant there will be brownouts, blackouts, and so on which of course is not true. There's plenty of electricity in the U.S. grid to take care of this area, keep jobs going, and so on without keeping Palisades open. (PS-I-4)

Comment: Concerning the power generated from the plant and how much it provides in the State of Michigan and all of that spin. The Cook nuclear plant was down over two and one-half years, and they have two reactors there each of, each one, I believe is 1100 megawatts and we never had any power outage due to lack of generation capacity there. And, the Palisades plant of 800 megawatts isn't necessary at all. I believe this is a false creation of needed electrical generation capacity that we're seeing here. (PS-L-2)

Response: *The need for power is specifically directed to be outside the scope of license renewal (10 CFR 51.95 (c)(2)). The purpose and need for the proposed action (renewal of an OL) is to provide an option that allows for power generation capability beyond the term of a current nuclear power plant OL to meet future system generating needs, as such needs may be determined by State, utility, and where authorized, Federal (other than NRC) decision makers. The comments are outside the scope of the license renewal review as set forth in 10 CFR Part 51 and Part 54; therefore, they will not be evaluated further.*

Cost-Benefit Analysis

Comment: We were all told we'll get rid of the meters on your houses, everybody is going to pay a nice G flat rate. This power is the most expensive power around that we're paying for. And it's just going to get a heck of a lot more expensive because of the cost of having to continue to clean up this mess radiation radiates. It moves. It's [radiation] going to move out of that plant. You can't close it down and walk away from it. It's always going to be there. (PS-A-5)

Comment: So, I'm also requesting an environmental, an economic impact statement. What's the potential of danger, hazards to tourism? This is a beautiful, beautiful lake, up and down the lakes, fishing, tourism. Tremendous for the economy of Michigan. The economy of Michigan depends on tourism. What happens if they do have the big one? We got this arbitrary 10-mile zone. Do the radionuclides stop at 10 miles? Do they stop at 50 miles? Do they hit me over in Monroe? Do they contaminate 20 percent of the world's surface freshwater? What are we gambling with? (PS-K-11)

Comment: I have a question where economic issues come into this. My, what I mean by that is how much this 20-year license renewal, how much guaranteed loans and tax incentives and millions of dollars is this going to cost taxpayers? (PS-L-1)

Comment: I also request that information reflecting the true financial taxpayer economic burden of the plant, including all anticipated guaranteed loans, tax incentives, and any other additional financial deals expected to be requested by plant owners that are contingent upon Palisades' continued operation, be provided at some point in the proceedings, or the means and process to obtain such data be provided. While I realize that this is not germane to the Environmental Impact Statement, disclosure of this information is vital to assessing Palisades' true financial worth to the community. (PS-CC-5)

Comment: As part of any NRC Environmental Impact Statement, there is need for an Economic Impact Statement. This must include loss of "Opportunity Costs" such as tourism, fishing, recreation, housing, other real estate, drinking water, etc. from ongoing "routine" radiation releases into the waters, air, and soil of the Lake Michigan ecosystem, as well as the potential

lost "opportunity costs" associated with a major radiation release due to an accident or attack at the Palisades reactor. (PS-EE-25)

Comment: Principles of Full Cost Accounting must be taken into consideration when examining the No Action option (denial of relicensing). Twenty additional years of Palisades operation would have negative impacts on public health, with civil liberties curtailed, impacts on the realty market, additional routine contamination of the water and air, etc. This, coupled with the Opportunity Costs incurred because of negative impacts on tourism, recreation, fishing, camping, and agriculture must be factored into the economic viability of operation. These must be considered in the EIS process. (PS-EE-37)

Response: *The Commission determined that an applicant for license renewal need not provide an analysis of the economic costs or economic benefits of the proposed or alternative actions. The comments are outside the scope of the license renewal review as set forth in 10 CFR Part 51 and Part 54; therefore, they will not be evaluated further.*

Comment: It seems to me that atomic energy is one of the best sources of energy that we have. I believe that there is very little fallout of undesirable elements from atomic power plants. I have a desire that federal regulations will make it more economical to build atomic power plants. They need to pass a plant plan . . . that can be used throughout the country so that the power companies can judge the cost of building a plant without having a bunch of changes that drive up the cost to a great extent. . . . And therefore I think that the federal government needs to act to make building atomic power plants more economical and something you can judge the cost of before you start the plant. (PS-E-3)

Response: *The comment is supportive of nuclear power, in general. The Commission determined that an applicant for license renewal need not provide an analysis of the economic costs or economic benefits of the proposed or alternative actions. The comments are outside the scope of the license renewal review as set forth in 10 CFR Part 51 and Part 54; therefore, they will not be evaluated further.*

Out of Scope: Not Categorized

Comment: Since this is devoted to environmental effect then surely all of that should be included in the investigation. The statistics at least as well as both sides and as experts from all fields that are involved with radioactivity and the nuclear issues. A couple of tidbits. One, I've tried to make notes on, yes. Oh, yes. A couple of books here. I think this gets to the point, it gets into terminology. For instance this is radioactive waste production storage disposal. Well, disposal of course is impossible. You do not throw this stuff away. You cannot totally dispose of it. It has to be managed forevermore. And particularly since plutonium is one of the products from the nuclear plants, that's 4.5 billion years. I mean that's long enough for anybody. So I hope somebody comes up with a term that better indicates such as management than disposal. (PS-D-2)

Comment: I guess I'm asking that when you do your materials I think we would all appreciate terms that are more public terms than company terms. Like spent fuel. And spent fuel is not spent. It's not less. It's too hot I understand to continue using. And therefore, it's unusable and it's because it's so heavily irradiated. So spent is, is one of those terms that I think your materials should change. (PS-D-3)

Response: *The comments have been noted. The terminology for various waste management terms is not within the scope of the license renewal; therefore, they will not be considered further*

as part of the environmental review. The comments will be forwarded to the appropriate NRC communications staff for consideration.

Comment: Especially the workforce which has African-American workers at Palisades have actually sued the company for racial discrimination because of receiving the most hazardous jobs at the facility. (PS-B-7)

Response: *The Commission recently published a policy statement setting out its views and policy on the significance of Executive Order 12989 (Section 1-101; Volume 59 of the Federal Register, page 7629 [59 FR 7629], February 16, 1994) and guidelines on when and how environmental justice will be considered in NRC licensing and regulatory actions: Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 FR 52040 (August 24, 2004). In it, the Commission confirmed that “the basis for admitting EJ contentions in NRC licensing proceedings stems from the agency’s NEPA obligations.” Procedurally, an environmental justice review is a tool within the normal NEPA process “to identify communities that might otherwise be overlooked and identify impacts due to their uniqueness as part of the NRC’s NEPA review process.” The Commission reiterated that “racial motivation and fairness or equity issues are not cognizable under NEPA.” The comments, therefore, are outside the scope of the license renewal review and will not be evaluated further.*

Comment: I'm perplexed by the, who's culpable? Nuclear Management Company is coming forward and requesting this license extension. Or, is it CMS who's requesting it? What assets does Nuclear Management Company own? Who's going to be left holding the bag if they do have their accident here, or CMS folds. Twenty years is a long time. And, as we saw a few years back, CMS was involved in some round tripping and cooking their books, major, I think to the tune of \$5.4 billion. So, there's a credibility problem here and so, I'm really wondering, who's the NRC giving approval to? Is it to Nuclear Management Company? Or, is it to, is it to CMS? What is their relationship? The relationship is further compounded by the chairman of the board of Nuclear Management Company is, I believe, David Joos, J-o-o-s. I think he's also the CEO of CMS. So, there's, you know, some incestuous things there, potential conflicts of interest. (PS-K-10)

Response: *NMC is the holder of the OL and has applied for renewal of the OL of Palisades Nuclear Plant. NMC submitted the application, dated March 22, 2005, individually and as agent for the owner of the plant, Consumers Energy. The comment is outside the scope of the license renewal review; therefore, it will not be evaluated further.*

Comment: There are current legal actions being taken by whistle blowers at Palisades. One such case has identified systematic abuse by Nuclear Management Company of a Health Physicist worker who had reported what he believed to be various violations of safety protocols to the U.S. Nuclear Regulatory Commission. The plaintiff discussed over the telephone certain concerns of his about safety and his fear of retaliation for bringing up safety concerns and by cooperating with the Nuclear Regulatory Commission with Andrea Kock and Ryan Alexander of the United States Nuclear Regulatory Commission. This resulted in the generation of United States Nuclear Regulatory Commission Allegation Number RIII-03-A-0051. This worker has been dismissed from employment. This culture of intimidation sets the stage for internal dissent. When workers fear that they will be dismissed for reporting safety concerns, there is a serious problem with the “Safety Culture” at Palisades with potential grave consequences. These concerns must be addressed in the EIS process. (PS-EE-36)

Response: *Allegations or safety concerns reported to the NRC are handled under the allegations program as described in NUREG/BR-0240, Rev. 3, "Reporting Safety Concerns to the NRC." The comments are outside the scope of the license renewal environmental review; therefore, they will not be evaluated further.*

Summary

The preparation of the plant-specific supplement to the GEIS (called a SEIS) for the Palisades Nuclear Plant will take into account all the relevant environmental issues raised during the scoping process that are described above. The draft SEIS will be made available for public comment. Interested Federal, State, and local government agencies; local organizations; and members of the public will be given the opportunity to provide comments to be considered during the development of the final SEIS. Concerns identified that are outside the scope of the staff's environmental review have been or will be forwarded to the appropriate NRC program manager for consideration.