October 16, 2006

MEMORANDUM TO: John T. Larkins, Executive Director
Advisory Committee on Reactor Safeguards

FROM: J. E. Dyer, Director **/RA BBoger for/**
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSE TO QUESTIONS RAISED BY MEMBERS OF THE PUBLIC DURING THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS SUBCOMMITTEE MEETING ON PALISADES NUCLEAR PLANT LICENSE RENEWAL APPLICATION

During the Advisory Committee on Reactor Safeguards (ACRS) Plant License Renewal Subcommittee meeting, held on July 11, 2006, the ACRS heard from members of the public regarding the review of the license renewal application for the Palisades Nuclear Plant. The members of the public provided comments and raised questions on a number of issues that they believed should affect the ACRS' decision on renewal of the Palisades Operating License. The staff has reviewed the transcript of the ACRS subcommittee meeting and identified all questions raised by members of the public. Responses to these questions are provided in the enclosure.

The staff recognizes the ACRS's commitment to safety and appreciates the Committee's continued efforts in support of the license renewal process.

cc: Chairman Klein
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons
L. Reyes, OEDO
A. Vetti-Cook, SECY
M. Johnson, OEDO
B. Sosa, OEDO
J. Lamb, OEDO
F. Gillespie, NRR
L. Lund, NRR
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ADAMS Accession Nos.: Pkg - ML062640518, Incoming - ML062640268, Response - ML062640588

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PUBLIC COMMENTS

1. **Terrorism**

Public Comment: Among other things that you are not considering the very issue that this nation is at war about. We are at war on terrorism and you are not considering it on our nuclear plant? This is incredible to me and how you can call that outside the scope according to a letter that I've been reading here from Valkyre. Is that his name? It just seems to me that you have no right to not change the procedure. I don't care what your procedure has been in the past.

In fact, there have been times when I have driven right up to the reactor fence all by myself, just an ordinary person, etc., etc., partly just to see what would happen if I did it. Now, of course, I assume that is not allowable but, in the meantime, how can you not include the issues of terrorism on 100 some nuclear bombs just sitting and waiting to get hit that are scattered throughout our country?

How can you not look at terrorism as part of that when the world -- when this country has killed -- has had 25,000 and more of our people die fighting a war on terrorism and you are not including it in renewal procedures?

We don't want to give anybody any ideas. Believe me, if even a little former fourth-grade teacher can think of some ideas of what could happen, I'm sure that anybody that was really determined to do something could come up with some horrible things. But to officially exclude it from the procedure of renewal and to consider renewing the plant when it's already embrittled it doesn't make any sense at all.

Response: The NRC's regulations contain provisions on nuclear plant security for all operating plants; these regulations continue to apply to plants when an operating license is renewed. The NRC website (www.nrc.gov) has further information on plant security and emergency preparedness in response to terrorism.

The issue of terrorism and plant security was initially raised as part of the hearing request on the license renewal application for the Palisades Nuclear Plant; however, the contention was later dropped by the petitioners. Those same individuals filed a motion before the Commission on June 22, 2006, requesting that the issue of terrorism be reconsidered in light of the Ninth Circuit Court of Appeals ruling in *San Luis Obispo Mothers for Peace, et.al.,v. NRC,* regarding environmental reviews and environmental effects of potential terrorist attacks on nuclear power plants. The Commission ruled that it would address the petitioners' motion at a later time.

The Commission has not determined how NRC licensing actions will be affected by the Ninth Circuit Court of Appeals ruling. Notwithstanding the Ninth Circuit decision, the Commission has addressed terrorism in the Generic Environmental Impact Statement (GEIS). See Duke Energy Corporation (McGuire Nuclear Station, Units 1 and 2, Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 365 n.24 (2002); GEIS §5.3.3.1.

2. **Spent Fuel Storage**

a. Accumulation of Waste

Public Comment: My question is -- what are you -- are you still considering the fact that the waste is piling up on the beach and that is out of scope also? You don't really seem

concerned that 20 more years of nuclear waste on Lake Michigan is important? Is that also out of scope, sir?

The waste on the nuclear power plant that is now sitting on the shores of Lake Michigan. I am wondering if it is out of scope to be concerned about the waste piling up there on the beach for 20 more years if this license is renewed. I would like to know if that issue is out of scope.

It's certainly in my scope. I live within 50 miles of the plant and I have a feeling that it is out of scope because we have tried to bring this issue before the Atomic Safety Licensing Board and we have been ruled out of scope on every issue we have brought forward. Just want to remind you that we don't consider it out of scope.

Response: Dry-cask storage of spent fuel, regardless of whether a plant's license has been renewed or not, is covered by NRC's regulations at 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-level Radioactive Waste, and Reactor-related Greater than Class C Waste." NRC regulations require all spent fuel generated by Palisades to be stored using methods approved by the NRC, such as dry casks, until a long-term repository becomes available. The casks used at Palisades meet current regulatory requirements. The NRC routinely monitors the licensee's dry fuel storage casks to ensure they continue to meet regulatory requirements. The results of this monitoring are publically available in NRC inspection reports.

The issue of spent fuel storage was raised during the initial hearing request on the Palisades license renewal in Contentions 3, 5 and 6. Contentions 5 and 6 were later withdrawn by the petitioners. On March 7, 2006, the Atomic Safety and Licensing Board (ASLB) ruled that Contention 3 was inadmissible because it was outside the scope of the license renewal proceeding. This decision was affirmed by the Commission in its ruling on June 23, 2006.

During the public meetings conducted as part of the license renewal environmental review, members of the public raised similar issues concerning long-term storage of nuclear waste onsite. These issues were also determined to be outside the scope of the environmental review, as they are already addressed in 10 CFR Part 72 and the Waste Confidence Rule.

b. Bad Welds on Dry Cask #4

Public Comment: "I have another question and that is about Cask Four. I understand it has bad welds and is sitting in kind of a cask that is actually on unstable ground and it is surrounded by other casks. Now, they know that's a problem cask, that it could -- that the welds could break, it could leak.

"My question is why aren't they dealing with it? Why are they just having it there and have they ever assessed how much time it would take them if that cask started to leak to get all those other casks out of the way so that they could even deal with it. Just by letting it sit there is seems like negligence to me. Why aren't they handling that? Why aren't they doing something about that cask?

"One of the people on the phone brought up cask No. 4 as an example of promises by this company that have been broken in the past. The company publicly stated, and it was reported in the local newspapers that the container would be unloaded because it had problems. Here we are 12 years later and that cask is still sitting there."

Response: NRC's regulations on dry-cask storage of spent fuel are covered under 10 CFR Part 72. These regulations require routine NRC inspection and monitoring of

the licensee's dry fuel storage casks to ensure they meet regulatory requirements. The results of this monitoring are publically available in NRC inspection reports.

In 1994, the licensee identified welding issues on VSC-24 casks. The licensee initially planned to unload fuel from some casks; however, before those plans were implemented, additional issues regarding VSC-24 casks were identified at Palisades and other nuclear facilities. In January 1997, the licensee informed the NRC that its plans had changed and it no longer intended to unload any casks.

In May 1997, NRC issued a confirmatory action letter which confirmed that the licensee would not load or unload any casks until the issues regarding VSC-24 casks were resolved. The NRC extensively reviewed the welding issues and determined that the welding issues were minor and did not affect the integrity of the casks. NRC also reviewed the licensee's procedure for unloading the casks and determined that the procedure was adequate. In April 1999, NRC closed the confirmatory action letter and allowed the licensee to resume reloading of spent fuel into the dry casks.

Cask #4 was the subject of a 10 CFR 2.206(c) petition filed in November 1995 by a member of one of the groups participating in the ACRS sub-committee meeting held on July 11, 2006. The petition requested that no more casks be loaded until Cask #4 was unloaded. This petition was denied by the Director, Office of Nuclear Reactor Regulation (NRR) in a notice published in the Federal Register on March 10, 1997 (62 FR 10882). Furthermore, the issue of bad welds on Cask #4 was raised as part of the Palisades initial hearing request in Contention 4. As noted in the ASLB Memorandum and Order, the contention was effectively withdrawn.

c. Stability of Dry Casks and Pads

Public Comment: "The casks are sitting on these pads which you mentioned in your meeting. They are sitting there like a bunch of bowling balls just waiting to be knocked over. If one goes, then more will go."

Public Comment: "The other question I had was about earthquakes because of the proximity to the New Madrid earthquake zone. The last time there were three huge earthquakes down there in the New Madrid zone and in St. Louis those quakes actually made waves on Lake Michigan and rang church bells in Maine and broke windows in Washington, D.C. It just seems like that should be taken into account, especially because the pads that hold those huge heavy casks are built right on sand dunes."

Response: NRC staff and external stakeholders have raised the issue of pad stability at the site on numerous occasions since the implementation of dry cask storage in 1992. The NRC evaluated the stability of the original casks in a final safety evaluation report issued on September 20, 1994, and determined that the casks were acceptable. Since that time, the licensee has built a new independent fuel storage building. This new fuel storage building has also been subject to questions regarding the stability of the pads, and on September 3, 2004, two unresolved items were opened in Inspection Report 07200007/2004002. These unresolved items are currently under NRC review to determine whether a violation of NRC requirements has occurred.

On April 4, 2006, members of the public submitted a petition under 10 CFR 2.206 requesting the NRC to take "enforcement action in the form of condemning and forcing a halt to the use of the two (1993 and 2004) concrete pads holding dry casks storing used nuclear fuel at Palisades Nuclear Power Plant." This 2.206 petition is currently on hold, pending the review of the unresolved items.

The issue of the stability of the dry cask storage pads was raised as part of the Palisades initial hearing request in Contentions 3, 5 and, most specifically, Contention 6.

Contentions 5 and 6 were later withdrawn by the petitioners, with the issue of pad stability specifically subsumed into Contention 3. The ASLB ruled that Contention 3 was inadmissible because it was outside the scope of the license renewal proceeding. This decision was affirmed by the Commission in its ruling on June 23, 2006.

The issue of stability of the dry casks was also raised during the public meetings conducted as part of the environmental review and in comments on the draft supplemental environmental impact statement. These comments were again determined to be outside the scope of the license renewal environmental review.

3. **Contamination**

a. Soil Contamination

Public Comment: "I recently read that there was some flooding of radioactive effluent onto the soil within the compound in 1990 and Consumers Power -- I think it was Consumers Power at that time -- had asked for exemptions to a clean up. They said by leaving the soil there that they didn't think it was affecting anybody because the people didn't have wells and used city water. Because it was a fenced-in compound they didn't think anybody but their workers would be there. I was wondering, did they clean that up or did you allow that to just sit there?"

Response: Radioactive contamination was broadly addressed in the environmental review for license renewal; however, this issue was not specifically addressed. NRC staff has reviewed past records and determined that this specific instance addressed three overflows from the cooling towers occurring over an eight year period from 1980 to 1988. The licensee corrected the problem, preventing additional overflows from occurring, and removed the majority of the contamination. However, in 1987 and 1988, the licensee requested an exemption from the Commission to permit final disposal of approximately 6000 cubic feet of soil in an area of the plant known as the "South Radwaste Area." The NRC evaluated the overall acceptability of permanent disposal of the radioactive material on site and concluded that the licensee's request was acceptable. The exemption was granted by letter dated June 7, 1991.

b. Deteriorating Water Quality/Health of Residents in Area

Public Comment: "They are not taking into account deteriorating water quality or the cancer pocket, the health of the residents in that area. There are so many things that have happened there."

Response: The Palisades plant currently meets all NRC regulatory requirements for radioactive releases. The NRC routinely monitors the licensee's radioactive release program to ensure they continue to meet regulatory requirements. The results of this monitoring are publically available in NRC inspection reports.

The issues of water quality and public health were raised during the public meetings conducted as part of the license renewal environmental review and in comments on the draft supplemental environmental impact statement. The draft supplemental environmental impact statement, available in ADAMS under Accession Number ML060400430, specifically addresses water quality and usage in Sections 2.2.3, 4.5, and 4.8.5. Additionally, the draft supplemental environmental impact statement responds to specific comments by members of the public on surface-water quality, hydrology, use of water resources, and potential impact on human health.

The issue of water quality was also raised as part of the Palisades hearing request in Contentions 2 and 7. The ASLB ruled that both Contentions 2 and 7 were inadmissible

because they were outside the scope of the license renewal proceeding. This decision was affirmed by the Commission in its ruling on June 23, 2006.

c. 1979 Release of Radioactive Iodine

Public Comment: “The other thing was in 1979 there was a huge leak of radioactive iodine and the NRC actually went out and checked fishing boats to check people's fish for radioactive iodine. Palisades was fined during that time. They were fined because when they realized they were releasing radioactive iodine, they did not stop.

Response: This issue was identified and dealt with by the NRC under the current operating license. The issue involved the licensee’s operation with containment purge valves open, releasing radioactive effluents to the environment and is documented in Inspection Report 05000255/1979015, dated October 12, 1979. The NRC issued a Notice of Violation and Proposed Imposition of Civil Penalties on November 9, 1979, and imposed the Civil Penalties on December 20, 1979. Also on December 20, 1979, the NRC issued an Order requiring the licensee to verify the valve positions prior to startup. Under the current operating license, the NRC inspects the licensee’s radioactive effluent monitoring program on an annual basis. No further cases of the licensee operating with the containment purge valves open has been identified. If the plant’s license is renewed, these inspections will continue.

d. Precautionary Principle

Public Comment: “I understand that the precautionary principle is being applied by the IJC, International Joint Commission, which is, of course, the treaty arrangement between the United States and Canada for the safety and welfare of the Great Lakes. Now, how does the NRC apply the precautionary principle?

“As I would define precautionary principle, it is up to the industry and the NRC and any other corporate or producer of deadly waste to prove it does no harm rather than the longstanding position that has been taken which is that, "Public, you prove that it was our chemical that you died from," etc. Since the precautionary principle is getting more and more recognition among credible regulators and producers of all kinds of products, how does that currently fit into the NRC code?

Response: The Precautionary Principle is commonly understood to have arisen from a statement made during a 1998 environmental conference known as the Wingspread Conference. It basically states: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action.”

The NRC is a regulatory agency whose primary mission is to protect the public health and safety, and the environment from the effects of radiation from nuclear reactors, materials, and waste facilities. The NRC also regulates these nuclear materials and facilities to promote the common defense and security. Licensees must seek prior NRC approval for licensed activities by showing they would not affect public health and safety. In this way, the concepts of the Precautionary Principle, while not formally endorsed, are contained within NRC’s mission and are reflected in the NRC’s regulations. NRC does not promote the use of nuclear power; rather, NRC regulates its use in order to ensure that the public health and safety and the environment are protected from any adverse effects of the use of nuclear power.

Furthermore, the NRC staff does examine a range of reasonable alternatives, including the "no action" alternative, as part of the license renewal environmental review.

4. **Materials Related Issues**

a. Annealing Reactor Vessel

Public Comment: "Another very relevant promise that was stepped away from in the past had to do with the embrittlement problem. Again, the company said publicly that it would anneal the reactor vessel and that has not happened. I think this challenge goes as much to the NRC as it does to the company and that is it seems like every time that Palisades comes up against the embrittlement standard at NRC that standard is weakened or changed in some way.

"It is incredible that here we are in the year 2006. Palisades again is brushing up against the NRC's screening criteria for pressurized thermal shock and, wouldn't you know it, there's another proposed change in the rules. We can only assume that is going to accommodate Palisades reactor yet again not for 40 years of operations but for 60 years."

Response: The NRC's criteria for the evaluation of pressurized thermal shock (PTS) issues are documented in 10 CFR 50.61, where the material property-based screening criteria against which plant-specific material properties are compared, have not changed between the early-to-mid 1980s and 2006.

Both the licensee and NRC staff, however, have over time increased their understanding of the condition of Palisades' reactor pressure vessel (RPV). As required by 10 CFR 50.61, both the licensee and the NRC staff must evaluate new information as it becomes available and must base decisions on the best available information. As reflected in the NRC staff's July 11th presentation on the Palisades LRA, the best available information regarding the Palisades RPV, when compared to the criteria currently in 10 CFR 50.61, demonstrates that the Palisades RPV will continue to meet the NRC's regulatory requirements through 2014 for the material with the highest potential to be affected by PTS. This conclusion has been confirmed by evaluations performed by both the licensee (Nuclear Management Company) and NRC staff.

NRC is in the process of developing a technical basis for a possible change to 10 CFR 50.61. The most recent data from NRC's Office of Nuclear Regulatory Research suggest that the current screening criteria are very conservative. This is consistent with NRC staff's understanding of the very conservative technical bases upon which the current PTS screening criteria were developed in the early-to-mid 1980s. The NRC staff's state-of-the-art evaluation suggests that facilities may be able to operate in excess of the existing screening criteria without unacceptable risk to the public health and safety. The current schedule for revising 10 CFR 50.61 estimates a draft rule published for public comment in April 2007 and a final rule published in February 2008. The NRC staff encourages interested parties to comment on the draft rule when it is published for public comment.

b. Vessel Coupons

Public Comment: "One of the questions I had was somebody asked about how to tell if annealing works and they said that you test the sample coupons but Palisades has no original sample coupons left in the reactor."

Public Comment: "I would like to ask straightforward to the NRC people and the Nuclear Management people at this meeting today do you have original coupons in the reactor vessel that can be removed to check levels of embrittlement? Could you answer

that please straightforward? Original coupons of the original material that the vessel was created from.

"Those are not original. 1966 is not -- 1966? Do you have written proof of that?

"Could you please provide that to one of us? I'll give you my name and address and I would like to see that proof, please."

Response: As addressed by John Kneeland of NMC during the ACRS subcommittee meeting, three of the original Palisades' RPV surveillance capsules (which have been in the Palisades RPV since the beginning of facility operation and have been exposed to the same radiation environment as the RPV) remain in the vessel. These capsules sit in locations which expose them to enough neutron flux to make them appropriate for monitoring the condition of the Palisades RPV. As such, the Palisades facility complies with NRC requirements in 10 CFR Part 50, Appendix H, regarding RPV material surveillance programs. The NRC maintains a publically available database regarding reactor vessel integrity, including information about the Palisades reactor vessel. This database is available on the NRC website at the following link: http://www.nrc.gov /reactors/operating/ops-experience/reactor-vessel-integrity.html. More information regarding the database can be found in Regulatory Issue Summary 2000-016, which is available from the Public Electronic Reading Room on the NRC website.

c. Alloys 600 and 182

Public Comment: "One is that EPRI just had a report published June of this year that showed inter-granular cracking at Davis-Besse not only in Alloy-600 but also in Alloy-182. I wondered how much of Alloy-182 is in the Palisades power plant.

"Also, the steam generators you mentioned that they were also – the new ones that were put in in the early 1990s that they were also made with – I believe it was in the 1990s – that they were made with Alloy-600 and that seems like a big red flag because they had such big problems with them plugging."

Response: The Palisades plant does have components which were welded with Alloy 82/182. No specific information is available about the amount of Alloy 82/182 in the plant. The licensee has committed to managing the long-term aging effects of these components through the Alloy 600 Aging Management Program, the ASME Section XI IWB, IWC, IWD, IWF Inservice Inspection Program, and the Steam Generator Tube Integrity Aging Management Program. The staff has evaluated these programs for managing the aging of both alloys and found them to be acceptable.

d. Third Year Inservice Inspection

Public Comment: "Regarding the third cycle interval in-service inspection of the reactor internals, my understanding is that will occur after the relicensing process. How can the ACRS approve relicensing when they haven't looked under the hood, so to speak? Did that get addressed?

"I believe that is what precisely is occurring. They have requested a delay of that inspection until beyond their relicensing. They have actually over the course of 35 years they have not done their third 10-year inspection yet and it is being deferred."

Response: Staff has granted Palisades' request to defer the inspection of the Palisades RPV internals for one refueling cycle to better correspond with the scheduling of other plant activities (i.e., a full core offload required for the inspection). This refueling outage will occur prior to the period of extended operation. The evaluation of this licensee

request is a current licensing basis issue and is not related to the facility's license renewal application.

As noted at the Subcommittee meeting, licensees are required to periodically inspect many plant components, including RPV internal components, in accordance with the American Society of Mechanical Engineering Boiler and Pressure Vessel Code (ASME Code) as invoked by the NRC's regulations at 10 CFR 50.55a. This regulation provides specific regulatory processes through which licensees may, based on technical justifications, request NRC approval to deviate from the specific requirements of the ASME Code. Those processes were followed in this case. Licensees are required to submit a planned schedule for inservice inspections under their operating license as required by 10 CFR 50.55a; 10-year inservice inspection cycles will not always correlate with a plant's actual years of operation.

5. **Economics**

a. Sale of Palisades

Public Comment: "The NRC staff might not be aware of this as well but the company went before regulators in Michigan on May 10th of this year. The meeting had to do with the sale of the plant and Patricia brought that up earlier that this plant is for sale. The company identified five areas that are leading it to want to sell this plant.

"As I understand it, at the end of June that was the time line, the deadline for submissions, bids from other companies. I know that Exelon had a representative here today so I'm curious if they might be one of the bidders. Detroit Edison has expressed interest publicly. Anyway, Consumers Energy listed the following five areas as reasons for wanting to sell the plant:

- Reactor vessel head replacement at a cost of $100 million.
- Steam generator replacement.
- Reactor vessel embrittlement concerns.
- Increasing NRC fees and fire protection regulations.
- No. 5, containment coatings on sump strainers.

"I just find a disconnect or a contradiction between the company making all these commitments, promises, plans for the future while at the same time putting the plant up for sale.

"One big picture question I have is does the company that buys this facility have to comply with all the commitments that have been made by the current owner. That is one question."

Response: The licensee has announced that Entergy Corporation was the successful bidder for the Palisades plant. Before this sale is complete, it will be reviewed by the Federal Energy Regulatory Commission, the Nuclear Regulatory Commission, the Michigan Public Service Commission, and other regulatory and state agencies. In accordance with 10 CFR 50.80, the NRC will have to approve transfer of the current operating license to the new owner in writing. As part of the transfer of the license, the new owner will become responsible for the operating license along with all terms and conditions. This will include any commitments made as part of the license renewal process.

b. Efficiency of Palisades

Public Comment: "One question I had was how efficient is it to keep on using Palisades as they are using ultra-low leakage. It just seems like efficiency comes into the package

because we are the taxpayers and taxpayers subsidize a whole lot of the cost of nuclear power plants and there are more efficient ways to make electricity."

Response: Questions regarding the efficiency of the Palisades Nuclear Plant, especially against other, non-nuclear methods of producing electricity, were raised during the public meetings conducted as part of the license renewal environmental review and in comments on the draft supplemental environmental impact statement. While the economic issue of government subsidies is beyond the NRC's regulatory purview, the staff did specifically address the environmental impacts of different alternatives in Section 8.0 of the draft supplemental environmental impact statement.

6. **Miscellaneous Issues**

a. Mid-Cycle Assessment Meeting

Public Comment: "Do you know when that meeting will be, sir?"

Response: The internal mid-cycle assessment meeting was held on August 7, 2006 and the results issued on August 31, 2006. Information on the Reactor Oversight Process, including the assessment letter, is available on the NRC's public web site.

The NRC annually holds a public meeting in the vicinity of the plant to discuss the plant performance. This meeting is normally held in April or May and information regarding the meeting dates will be published under NRC's normal meeting notification links.

Concerns about current operations at the plant can be brought to the NRC's attention at any time through the allegation process. The NRC Region III allegation coordinators can be reached at 1-800-522-3025. More information on the NRC's allegation process can be found on the NRC's public web site.

b. Emergency Sirens

Public Comment: "At one point they turned off the alarms because they didn't want to disturb people so they turned off the alarm system for a while."

Response: NRC's regulations at 10 CFR 50.47 require licensees to have an emergency response plan, including a plan for notifying the public of emergencies. The Palisades Site Emergency Plan incorporates the use of sirens as a means of notifying members of the public of an emergency at the Palisades plant. The sirens are tested periodically and the licensee logs any occurrences where a siren does not activate. As part of its on-going inspection plan, the NRC periodically reviews the licensee's test results. In 2001 through 2003, the licensee underwent a siren replacement program. After installation and functional testing of the new sirens, the old ones were turned off. The NRC knows of no other instances where sirens were turned off at the Palisades plant.

c. Number of Licensed Engineers

Public Comment: Also, you mentioned that there were only four formally licensed engineers and that seemed like a small number of engineers that were formally licensed.

Response: This comment appears to be based on a misunderstanding of a comment made by the licensee. During the introductory remarks by Mr. Robert Vincent, the Palisades license renewal project manager, he commented on the qualifications of the license renewal staff at Palisades. As shown on pages 25 and 26 of the transcript, he commented that four of five lead license renewal staff formerly held senior reactor operator (SRO) licenses.

d. Backlog of Repair Orders

Public Comment: The other thing is that in 1986 Palisades had actually 4,000 repair orders that were backlogged. I agree that was back in 1986 but I am just telling you there is quite a bit of history here and it's not a pretty history

Response: NRC monitors the status of maintenance work in accordance with the NRC's regulations at 10 CFR 50.65. As part of our on-going inspection effort, NRC devotes over 100 hours a year to monitoring and evaluating the effectiveness of a licensee's activities in maintaining site equipment. NRC routinely assesses the backlog of equipment repair orders on a system; there have been no recent problems with backlogged work orders at Palisades.

e. Replacement of Steam Generators

Public Comment: Another question I have from today's presentation is although the steam generator was discussed during the course of today, it wasn't mentioned that there was another replacement in the works."

Response: The licensee has not informed the NRC of plans to replace its steam generators, although an article in the September 7, 2006 issuance of *Nucleonics Week* reports that Palisades has plans for a replacement in 2016. Replacement of the steam generators, should it occur, would be subject to NRC regulations.