



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 24, 2012

Ms. Bette Pierman, et al.
Mail to: bettebgv@yahoo.com

Dear Ms. Pierman, et al.:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letters to Chairman Allison Macfarlane dated September 7 and September 28, 2012, in which you conveyed your concerns about safety issues at the Palisades nuclear power plant (Palisades). Specifically, your September 7, 2012, letter expressed concerns about issues related to the safety injection refueling water tank (SIRWT), dry fuel storage cask transfer, tritium leakage, site safety culture, and license renewal. You also expressed concerns about other issues at Palisades that have resulted in multiple unplanned reactor shutdowns. In your September 28, 2012, letter, you expressed frustration regarding the notification of the October 1, 2012, Palisades Webinar and further requested that a public meeting be held in the Covert, Michigan area to discuss issues related to Palisades.

NRC oversight and inspections of a nuclear power plant occur on a continuous basis, and we evaluate specific violations and the safety risk that these violations present. The NRC conducts this evaluation using the Reactor Oversight Process (ROP). The NRC uses this information to place the plant in one of five columns (I-V) in the ROP's action matrix. The higher number columns represent more significant safety issues, which require increased NRC oversight and inspections. Columns I through IV characterize plants that continue to operate safely. The agency reserves Column V for plants that are unsafe to operate and would, therefore, need to shut down. NRC resident inspectors are on site daily to ensure that the plant is operating in accordance with its license and with Federal regulations. Staff from the NRC's Region III office and headquarters supports the Palisades resident inspectors. You can find additional information about the NRC's operating reactor oversight program and the ROP action matrix at <http://www.nrc.gov/reactors/operating/oversight.html>.

Currently, Palisades nuclear power plant falls within Column III (degraded cornerstone) of the ROP action matrix due to one Yellow finding and one White finding. The Yellow finding was associated with the loss of one direct current bus that occurred on September 25, 2011, which resulted in a complicated reactor trip. The White finding was associated with the failure of service water pump P-7C due to intergranular stress corrosion cracking that occurred on a pump shaft coupling on August 9, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML112780190 and ML120450037). Both the NRC and the plant consider this classification to be significant, meaning it requires action and yet is still safe to operate. The licensee has developed a recovery plan to assist in the process of improving its performance. This plan identifies five areas for improvement: leadership effectiveness, safety culture, corrective action program, equipment reliability, and refueling outages.

Because Palisades is currently categorized in Column III of the ROP action matrix, the NRC conducted a supplemental inspection (using Inspection Procedure 95002) in addition to our

routine, ongoing inspections. The NRC completed this inspection on September 28, 2012. The supplemental inspection procedure is designed to do the following:

- Ensure that the root and contributing causes of the performance issues are understood.
- Identify the extent of condition and extent of cause.
- Determine if safety culture components caused or significantly contributed to the individual and collective risk-significant performance issues including unplanned shutdowns.
- Provide assurance that corrective actions are sufficient to address the root and contributing causes and prevent recurrence.

Based on the above actions that the NRC and the licensee have taken, the NRC believes that performance deficiencies at the plant have been identified, and the agency has inspected these deficiencies to ensure that the licensee is taking adequate action. The NRC ensures that the plant is being operated in accordance with applicable regulations and within the terms of its license.

I also would like to address the other concerns raised in your letters and provide you with the current status on each of these issues.

Cask Suspended Over the Spent Fuel Pool

Your letter describes an event at Palisades in which a crane malfunctioned while lifting a dry storage cask out of the spent fuel pool. This event involved the unplanned engagement of the crane's emergency brake during the lift. While the NRC viewed this event with concern because it was unplanned, the engagement of the emergency brake did not place the load at risk of falling. The specific events associated with this subject are as follows: On October 11, 2005, while raising a dry fuel storage cask from the spent fuel pool after the cask was loaded, the emergency brake on the crane engaged. The engaged emergency brake stopped movement of the load, resulting in suspending the load partially out of the pool. The licensee stopped dry fuel storage activities and developed work instructions to inspect the crane and determine the cause for the brake engagement. The brake functioned correctly, and the fuel was not in danger. The NRC issued a Green, non-cited violation because plant personnel performed activities outside the scope of the work package used to inspect the spent fuel pool crane (ADAMS Accession No. ML060300256).

Tritium

Your letter describes leaks of tritiated water into the ground at Palisades. These leaks have occurred periodically since December 2007. The leaks originate from the buried piping associated with the waste receiver tanks. The licensee has attempted to resolve these leaks by replacing sections of buried pipe. These efforts have improved, but not eliminated, the leakage. Palisades monitors leakage through monitoring wells and periodic sampling of public drinking water supplies. No tritium above background levels has ever been detected outside the plant boundaries or in public drinking water supplies. Currently, the maximum concentration of tritium being detected in the soil in one test well is approximately 600 picocuries per liter (pCi/L). The

U.S. Environmental Protection Agency's drinking water standard for tritium is 20,000 pCi/L. The NRC is following activities to improve the integrity of buried piping at each nuclear power plant, including Palisades. While the NRC agrees that the release of any radioactive material into the environment is undesirable, the agency currently has no evidence to conclude that the leakage at Palisades is a threat to the population around the plant or to the environment. The leakage is very low and within all regulatory limits.

Safety Injection Refueling Water Tank (SIRWT)

Your letter describes an issue associated with leakage from the SIRWT. The SIRWT is an aluminum tank with a capacity of approximately 300,000 gallons. The water contained in the tank is used during refueling and in certain emergency conditions. Even at the maximum observed leak rate, leakage from this tank was far too small to have any effect on the ability of the tank to store the required amount of water to fulfill its safety function. However, leakage from the tank could affect equipment below it. During May 2011, for several days, and on a separate occasion in early May 2012 (again, for a few days), leakage from the tank did enter the control room at locations remote to safety-related equipment. These leaks were very small, about 1 cup per day. Water also entered the control room on a third separate occasion in June 2012, with a higher leakage rate, several drops per minute. However, this water was not related to leakage from the tank, but rather the source was water-cooled equipment used for repair activities conducted while the plant was shut down. On this occasion, the water did reach safety-related components; however, followup inspections did not reveal any effect on plant equipment. The NRC is currently evaluating enforcement on this issue.

On July 8, 2012, the licensee identified water seepage through a hairline crack in the west wall of the control room. A drop was observed to be forming every few minutes. The leak did not impinge on any plant equipment. Subsequent investigation by the licensee revealed a roof area above this section of the control room, west of the SIRWT, which had an accumulation of water. The water was pumped out, and no further leakage has been seen in the area. Inspectors performed a walkdown of the roof area, and the licensee continues to periodically monitor this section of the roof for leakage. The source of the accumulated water is unknown, but may have been from the "squeezing" of previously existing water from the sand under the SIRWT as it was being filled. The inspectors reviewed the licensee's operability evaluation and concluded there was no impact to any equipment.

During the spring and summer 2012, Palisades conducted extensive repairs inside the tank. Since the repairs were completed in July 2012, the leakage has reduced considerably. Current leakage of less than 1 cup of water per day is being measured from the tank. It is not yet clear if that leakage is continuing leakage from the tank or residual water from past leakage. Palisades installed leakage control equipment below the tank to ensure that any future leakage, should any occur, would not reach safety-related equipment. There is no leakage into the control room at this time. The NRC has issued a confirmatory action letter to the licensee to ensure the continued safe operation of the SIRWT ("Commitments to Address Safety Injection Refueling Water Tank and Control Room Concrete Support Structure Leakage," dated July 17, 2012, ADAMS Accession No. ML12199A409).

In light of the concerns regarding the SIRWT, the Region plans to assess the effectiveness of the aging management program for this structure later this year.

Degradation of Safety Culture

The licensee requested a safety culture assessment from an independent party. On June 26, 2012, the NRC issued a letter (ADAMS Accession No. ML12179A155) to the licensee, requesting that it supply information about its safety culture. The Palisades licensee responded to this letter on July 9, 2012 (ADAMS Accession No. ML12193A111), and the NRC held a public meeting on September 12, 2012, to discuss the safety culture survey. The public meeting assisted the NRC in assessing and understanding the results of the survey. It also provided an understanding of actions the licensee will be taking to address issues at the site. During future inspections, the NRC will review the site's performance and its safety culture.

Palisades Webinar

In your letter of September 28, 2012, you expressed dissatisfaction with the notification provided, the timing of, and the location of the Webinar held on October 1, 2012, by the NRC Region III staff. The Webinar provided preliminary results of the agency's special inspection of the Control Rod Drive Mechanism housing leak.

Regarding the notification of this meeting, please be advised that the NRC offers several options to members of the public for obtaining information related to upcoming public meetings. The notification tools below are available to all members of the public and were used to convey information related to the Palisades Webinar:

1. Public Meeting Notices

The NRC normally posts meeting notices for upcoming public meetings no fewer than 10 calendar days prior to the day of the meeting. The NRC posted a meeting notice related to the October 1 Webinar on the NRC Web site 12 days prior to the meeting. Please see the link: <http://www.nrc.gov/public-involve/public-meetings/index.cfm>.

2. Press Releases

The NRC distributes press releases to a wide range of media outlets and posts them on the NRC Web site within a week before the meeting. On September 26, 2012, the NRC issued press release III-12-038 announcing the October 1 Webinar. The NRC also posted the press release here: <http://www.nrc.gov/reading-rm/doc-collections/news/2012>. A wide range of media outlets announced information about the Webinar well in advance of the meeting.

3. Listserve

Members of the public can sign up to receive press releases or documents associated with a specific plant and other regulatory issues through free listserv services at: <http://www.nrc.gov/public-involve/listserver.html>. The NRC distributed information about the Webinar through the listserv.

4. Twitter

Members of the public may also receive instant notifications by following the NRC on www.twitter.com/NRCgov.

We appreciate your feedback about the timing of the Webinar and will consider comments from members of the public before scheduling another such meeting.

In addition to the Webinar, the NRC also conducted three public meetings this year near the plant after work hours. In addition to the meeting required by NRC processes and procedures, two additional public meetings were conducted. The NRC plans to host another after-hours public meeting in the vicinity of the plant to discuss the most recent plant performance reviews at Palisades. Once the date is finalized, the NRC will post the schedule related to this meeting on the NRC's public Web site.

The NRC is always seeking new ways to communicate with members of the public and soliciting input from meeting participants. Holding the first NRC Webinar on a special inspection at a plant was a case in point. Because the issue was of high public interest, the agency chose to communicate the information to the public in advance of the release of the official inspection results (scheduled to be issued in mid-October). The Webinar format and time allowed the agency to reach a wider audience of concerned citizens from all over the country who may not have been able to attend the public meetings held near the plant.

The NRC will continue to hold public meetings near the plant, to use the Webinar format to communicate with a wide range of people, and to look for other ways to keep people informed about activities at the plant.

If you have further suggestions for improving Palisades public meetings, please provide them using the public meeting feedback form that the NRC distributes at public meetings. You may also submit suggestions in writing to: The Assistant for Communications, Deputy Executive Director for Management Services, Office of the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

You also invited the Chairman to visit and tour the Palisades Nuclear Plant and meet with concerned members of the public. The Chairman's visit to a site is determined based on several factors including, but not limited to the following: site performance, external stakeholder involvement, site decommissioning activities, budget, and the NRC's industry initiatives. Accordingly, the Chairman's future plans to visit operating reactor sites, including Palisades, will be determined based on the above mentioned factors.

Finally, your letter of September 7, 2012, stated that you and many who joined in your correspondence to the NRC about Palisades found the Chairman's response on September 4, 2012, to be "disconcerting." You also expressed dissatisfaction with the responses other NRC staff members provided to you. Therefore, in accordance with NRC policy, we have forwarded your letter to the NRC Office of the Inspector General.

B. Pierman

- 6 -

Thank you for conveying your concerns about these matters. The NRC is closely overseeing the Palisades nuclear plant to ensure that the plant continues to operate safely. The NRC expects the licensee to fully address any identified shortcomings and will take whatever actions are necessary to assure continued safe operation of the facility.

We trust you will share this response with the other individuals included in your letters.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephanie M. Coffin', with a long horizontal flourish extending to the right.

Stephanie M. Coffin, Acting Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-255

B. Pierman

- 6 -

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Sincerely,

/RA/

Stephanie M. Coffin, Acting Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-255

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Response: ML12275A151

Incoming: ML12275A139, ML12279A047
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