From: Kozak, Laura
To: PSR Wisconsin
Subject: RE: Questions regarding Point Beach Nuclear Power Plant
Date: Wednesday, August 17, 2022 10:01:33 AM
Attachments: PBNP Safety Questions Letter.pdf

Dear Ms. Mortensen:

I received your email and questions/concerns about Point Beach on July 18, 2022. Below are responses to your inquiry on various topics.

July 31st, 2021, Plant Shutdown

On July 31, 2021, Point Beach Unit 1 was manually tripped due to a motor failure of a main feedwater pump. While there were equipment anomalies - including one feedwater regulating bypass valve not operating in automatic control, one condenser steam dump valve not fully closing after operating, and one of the crossover steam dump isolation valves not fully closing – they did not involve safety-related equipment and did not affect the safe shutdown of the reactor. These equipment issues involved power production components. All safety-related equipment functioned as expected. The NRC inspectors responded to the event to monitor the licensee's actions. Subsequently the NRC inspectors reviewed the licensee event report (LER) submitted to the NRC. The LER review is documented in inspection report 50-266/2022002; 50-301/2022002 (ADAMS ML22208A123). The inspectors concluded that there were no violations of regulatory requirements associated with the event. The performance indicator for Unplanned Scrams remains in the licensee response column of the NRC's Action Matrix, indicating acceptable safety performance.

Regarding your questions on pumps and valves, the licensee is subject to various requirements to maintain plant equipment. The NRC routinely inspects these licensee activities. However, the agency's focus is on equipment that is important to safety rather than equipment that is important for power production (e.g., non-safety equipment). The licensee is also required to identify problems and correct deficiencies, including age-related failures of safety-related equipment. The NRC inspection program for operating reactors evaluates corrective actions on a sampling basis consistent with the significance of issues that arise.

February 9, 2022, NRC Office of Inspector General Report on Counterfeit, Fraudulent and Suspect Items

After the issuance of the NRC OIG report, the NRC performed additional reviews to determine if there was an immediate safety issue. The NRC is not aware of any counterfeit, fraudulent and suspect items (CFSI) at Point Beach. Generally speaking, the NRC staff has reviewed available data in licensee event reports, 10 CFR Part 21 reports, and inspection reports and concluded that the data does not support the existence of CFSI in structures, systems, and components that could adversely impact safety.

Although the NRC determined that the CFSI does not represent an immediate safety concern, the staff performed an assessment of the agency's oversight of activities related to CFSI and recognized

areas where the OIG reports provide opportunities for the agency to make improvements to the implementation of existing programs and processes. Most of these improvements were encompassed by the planned actions underway in response to the OIG's audit report (OIG-22-A-06), in which the NRC committed to performing several activities to enhance the NRC's regulatory activities related to CFSI. For example, these activities include revising inspection guidance related to CFSI, conducting additional training on CFSI for NRC inspectors, and performing additional outreach activities to raise awareness of CFSI in the supply chain. The NRC is in the process of accomplishing these planned activities and has committed to completing these activities by 2023.

Safety Concerns Related to Environmental Conditions

NRC requirements ensure that the reactors and the nuclear waste storage areas are designed and built to withstand anticipated variations in Lake Michigan water levels and to ensure the safety of the reactor and the storage facilities. The NRC performs routine inspections and walkdowns at the plant and waste storage facilities, monitoring lake water levels to ensure they are adequate for plant safety. All inspections indicate the plant continues to operate safely and will do so through various water levels

The NRC inspects the licensee's procedures for severe weather using inspection procedure 71111.01, "Adverse Weather Protection". These inspections are conducted prior to seasonal changes in weather and prior to impending severe weather. Should a severe weather event occur at Point Beach like what occurred at Duane Arnold in August 2020, the NRC would implement its Event Follow-up procedures to monitor the response to an event. Point Beach is designed to remain safe during a similar event. It is also important to understand that Duane Arnold remained safe throughout the derecho event when damage occurred to offsite power lines and non-safety related cooling towers.

Reactor Pressure Vessel Embrittlement

The reactor pressure vessel is designed and fabricated to have an extremely low probability of failure. The licensee is required to perform in-service inspections to monitor reactor pressure vessel integrity and the NRC performs inspections of the licensee's activities. If during these activities, an indication of a flaw or crack is identified, NRC requirements would ensure that appropriate corrective action be taken, including an assessment of the operability of the reactor coolant pressure boundary in accordance with the plant's technical specifications.

The NRC has various requirements to address reactor pressure vessel aging and embrittlement to ensure reactor safety, which form the basis for ensuring reactor safety.

Licensees must meet the requirements of 10 CFR Part 50, Appendix G, "Fracture Toughness Requirements", Appendix H, "Reactor Vessel Material Surveillance Program Requirements", and (for pressurized water reactors like Point Beach) 10 CFR Part 50.61 and 50.61a – the "PTS rule" and "alternate PTS rule," respectively. The licensee's programs in place and assessments that have been performed to demonstrate compliance with these requirements ensure the vessel's steel retains adequate fracture toughness to protect the vessel's integrity throughout the reactor's licensed operating period.

Point Beach has a Reactor Vessel Material Surveillance Program which includes the removal and testing of reactor surveillance capsules from the reactor to provide data in assessing reactor vessel integrity in accordance with Appendix H to 10 CFR Part 50. This program was recently reviewed and evaluated by the NRC on February 23, 2022, in support of the licensee's subsequent license renewal application. Additionally, the licensee's application includes analyses that specifically address reactor vessel neutron embrittlement during the subsequent period of extended operation. The NRC staff's assessments of this program and these embrittlement analyses are documented in a safety evaluation for the licensee's subsequent license renewal application (ADAMS ML22054A108). More information on Point Beach subsequent license renewal can be found at Point Beach SLR. The details of the Reactor Vessel Material Surveillance Program approved for the current operating license is documented in the licensee's Pressure Temperature Limits Report (ADAMS ML20009E096).

The NRC is reviewing the possibility of acquiring components from the closed Palisades plant for research. The NRC does look to identify and determine which materials are viable and can fulfill technical objectives for the NRC's mission. We recognize that performing research on acquired materials can provide insights for component performance in commercial nuclear power plants and allow for a greater understanding of material degradation. To that end, the agency has secured material from operating and other permanently shut-down plants for research purposes in the past.

Furthermore, the NRC, DOE and the nuclear industry have activities to acquire materials from both domestic and international plants to learn more about a variety of aging issues. The NRC held a public meeting on its harvesting activities on June 27. The meeting summary and related information (such as the slide presentations) can be found here (Public Meeting, Status of NRC Harvesting Activities, June 27, 2022 (ML22178A155)).

In your email you referenced the in-person open house public meeting for Point Beach on June 23, 2022, at the Lester Public Library in Two Rivers, Wisconsin. The purpose of the meeting was to discuss NRC's assessment of the safety performance at Point Beach Nuclear Plant in 2021. A summary of the meeting can be found in the NRC's Agencywide Documents and Management System (ADAMS ML22181B118). The NRC determined that in 2021 Point Beach safety performance was acceptable with all performance indicators and inspection findings determined to be of very low safety significance. Point Beach operated safely in 2021 and continues to operate safely today.

Thank you for your inquiry. I hope this information is helpful.

Laura Kozak
Acting Branch Chief, Branch 4
Division of Reactor Projects, RIII

From: PSR Wisconsin <info@psrwisconsin.org>
Sent: Monday, July 18, 2022 11:07 AM

To: Kozak, Laura <Laura.Kozak@nrc.gov>
Subject: [External_Sender] Questions regarding Point Beach Nuclear Power Plant

Hello Laura,

My name is Hannah Mortensen and I am the executive director of Physicians for Social Responsibility Wisconsin. I am submitting the attached PDF document to the NRC regarding safety and the 2021 performance assessment at Point Beach Nuclear Power Plant. The letter contains several questions that we would appreciate answers to within three weeks time.

Thank you for your time and help.

Sincerely,
Hannah Mortensen

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