

From: Thomas Saporito <saprodani@gmail.com>
Sent: Friday, December 19, 2014 1:29 PM
To: Klett, Audrey
Subject: Re: Update on your 2.206 Petition re. Turkey Point

Hello Audrey:

Please take notice that no further discussion with the NRC PRB is desired at this time regarding the instant Enforcement Petition 2.206 Re: Turkey Point Nuclear Plant - Canals UHS

Have a great holiday!

On Fri, Dec 19, 2014 at 1:25 PM, Klett, Audrey <Audrey.Klett@nrc.gov> wrote:

Hello Mr. Saporito,

Please let me know by December 31, 2014, if you would like to comment on the PRB's recommendations via a meeting or teleconference.

Regards,

Audrey Klett

From: Klett, Audrey
Sent: Friday, December 05, 2014 10:00 AM
To: 'Thomas Saporito'
Cc: Banic, Merrilee
Subject: RE: Update on your 2.206 Petition re. Turkey Point

Hello Mr. Saporito,

The Petition Review Board (PRB) recommends accepting the portion of the petition related to the root cause of the canal temperature increase because the root cause is currently under NRC's review and evaluation (refer to item a below). Regarding items b through i below, the PRB recommends rejecting these aspects of the petition because they have already been the subject of NRC staff review and evaluation for which a resolution has been achieved.

In your petition dated July 18, 2014, you stated that operation of the Turkey Point nuclear plant with an Ultimate Heat Sink (UHS) temperature greater than 100 degrees Fahrenheit (°F) will significantly jeopardize public health and safety. You also stated that this will result in an accident with an unwanted release of nuclear material and radioactive particles, and that operation with a UHS temperature greater than 100 °F would likely result in the licensee's loss of control of the two nuclear reactors and result in a nuclear accident similar to the ongoing Fukushima nuclear accident in Japan.

The PRB noted that you did not provide a basis for these assertions in your initial submittal. However, you requested a teleconference with the PRB before its initial meeting and supplemented your petition. Prior to the PRB's teleconference with you on September 3, 2014, you provided 16 supplements to your petition. You also emailed the petition manager your talking points after the teleconference as an additional supplement. The bases for your requested enforcement actions, as the NRC understands them, are summarized below (with references to the page numbers of the 9/3/14 teleconference transcripts), followed by a description of the action taken to resolve each issue.

a. You indicated that the cause of the temperature and salinity increase is either the power uprate or unknown (throughout the transcript – e.g., page 42, lines 7-15).

As documented in Section 4OA3.2 of NRC's Integrated Inspection Report No. 05000250(251)/2014004, dated October 23, 2014 (ADAMS Accession No. ML14296A129), the NRC staff opened an Unresolved Item that documents the staff's plans to inspect the licensee's root cause of the cooling canal conditions and associated corrective actions. The staff intends to complete its inspection activities by March 31, 2015, and issue its associated inspection report within 45 days of that date. Because the NRC staff's review of the licensee's root cause evaluation has not been completed, the PRB recommends that the 2.206 petition be partially accepted (i.e., the portion related to the root cause of the increased cooling canal temperatures) for further review pending completion of the NRC's inspection of the root cause of the increased cooling canal temperatures.

b. You indicated that the amount of rainfall wasn't as low as the licensee said it was (page 41, lines 1-25). You provided a news article (Attachment 13 to the petition) that stated that water managers with the South Florida Water Management District say rainfall in southeast Miami-Dade has been average and that past droughts in the last 14 years didn't cause issues.

In its request for a Notice of Enforcement Discretion (NOED) (ML14204A083), the licensee provided the rainfall amount measured at the Turkey Point cooling canals, which indicated a lower amount of rainfall compared to the previous years listed. The NRC Project Manager (PM) for Turkey Point reviewed weather data available from the internet when the amendment

request was submitted and monitored radar data available from weather-related websites on a daily basis during the processing of the amendment request. Based on the PM's search of data and the radar reports available at the time, the NRC staff determined that the licensee's assertion about rainfall being below average at the site was reasonable. The NRC staff also researched historical weather data at Homestead AFB, which is near the Turkey Point site. Information from various weather-related websites indicated that this area had lower than average rainfall amounts in 2014.

c. You indicated that the NRC relaxed its safety regulations and the plant's safety margins (page 14, lines 4-20). You indicated that because of this relaxation, the plant will not be able to mitigate an accident (page 15, lines 1-12).

As documented in the NRC staff's safety evaluation for Amendments 261 and 256 (ML14199A107), which increased the surveillance frequency for component cooling water (CCW) heat exchanger performance monitoring and increased the Technical Specifications (TSs) UHS temperature limit at which the licensee would have to initiate downpowering the nuclear units, the NRC staff determined that the plants can mitigate a design basis accident at the new TS UHS temperature limit.

d. You indicated that the NRC rushed the amendment, on an emergency basis (page 17, lines 15-19; page 43, lines 2-6).

The regulations in 10 CFR 50.91(a)(5) and 10 CFR 50.91(a)(6) allow for the processing of amendment requests on an emergency or exigent basis, in that failure to act in a timely way would result in derating or shutdown of a nuclear power plant or in prevention of either resumption of operation or of increase in power output. The NRC processed the amendment request on an exigent basis and provided prior notice to the public. When the NRC processes an amendment request on an emergency or exigent basis, it dedicates its resources to that action.

e. You indicated that the higher canal water temperature is a danger to the wildlife that lives in the canal and plant operation (page 34, lines 3-6; page 36, lines 3-7). You also cited environmental concerns from a Miami Herald article about the plant pumping in water from a nearby canal system (page 39, line 3 to page 40, line 6).

The NRC's safety evaluation and environmental assessment for Amendments 261 and 256 concluded that there were no significant environmental impacts associated with the new TS limit based on its evaluation of the information provided in the licensee's application and other available information. The NRC staff's environmental assessment was published in the *Federal Register* and is referenced in the amendments' safety evaluation.

The State of Florida approved the licensee to extract additional water from the Floridan aquifer for use in the cooling canal system (CCS). The South Florida Water Management District authorized the licensee to start injecting water from the Biscayne Aquifer into the CCS. These actions taken by the State of Florida are outside the scope of the NRC's authority.

f. You indicated that the plant was designed and built for safe operation with the UHS water temperature at most 100 degrees and that the Updated Final Safety Analysis Report (UFSAR) specified that the UHS be 100 degrees or less (page 24, lines 16-25). You indicated that the UFSAR results will not remain valid for an increase in UHS temperature to 104 degrees (page 37, lines 11-18).

The NRC's safety evaluation for Amendments 261/256 determined that the higher TS UHS water temperature limit would not significantly affect the UFSAR results for containment temperature and pressure as long as the CCW heat exchangers are adequately maintained. The licensee is required to update the UFSAR in accordance with 10 CFR 50.59 and 50.71 based on the results of the amendments' safety evaluation and the licensee's analysis to support the amendments. The NRC reviews the licensee's UFSAR updates to ensure they document new licensing basis information.

g. You indicated that the UHS TS Surveillance Requirement (SR) is flawed because it would allow the licensee to measure/take the temperatures during the coldest part of the day (page 28, line 19 to page 29, line 19).

Amendments 261/256 resulted in requiring the licensee to verify UHS temperature hourly if the UHS temperature exceeds 100 °F. This increased frequency ensures that cooling canal system temperature variations are appropriately captured. Based on the HX3/HX4 (i.e., the licensee's program for monitoring CCW heat exchanger performance) discussion in the amendments' SE, there is not a demonstrated extreme change in intake temperature and CCW HX performance that could occur over a 24-hour period that would exceed the 104 °F temperature limit.

h. You indicated that the CCW heat exchanger performance test frequency should be once per 7 days (page 28, lines 13-22). You indicated that the licensee failed to conduct the CCW heat exchanger (HX) SR frequency adequately (and that the TS SR frequency is not adequate) because the increase in salinity and temperature can affect heat transfer capability and safety-related plant equipment (page 43, lines 16-24; page 45, lines 8-14).

The licensee's HX3/HX4 program determines the extent and impact of HX fouling on heat transfer capability. The NRC staff determined that the new TS SR frequency of 14 days was

reasonable for determining CCW HX performance based on Turkey Point's operating experience with CCW fouling, the administrative conservatisms the licensee built into its plan to evaluate the CCW HXs, and the combined nature of the 14-day SR and the daily or hourly check of SR 4.7.4. The licensee's program for calculating CCW HX cleaning frequency directed cleaning of the heat exchangers once every three weeks during the high-algae and temperature conditions of the UHS, which is less frequent than the new 14-day performance test requirement. In addition, Turkey Point's TS SR 4.7.2.a requires the CCW system shall be demonstrated operable at least once per 12 hours by verifying that two CCW heat exchangers are capable of removing design basis heat loads. This SR helps ensure that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions.

i. You indicated that the licensee misled the NRC regarding the basis for requesting the NRC process the LAR as an emergency amendment in that there was no grid reliability issue (pages 46 and 47).

During the course of its review of the licensee's NOED request, which occurred in parallel with the NRC's review of the amendment request, the NRC staff independently verified with the North American Electric Reliability Corporation (NERC) the licensee's statements on grid reliability. NERC confirmed the licensee's statements.

If you would like the opportunity to comment on the PRB's recommendations via a meeting or teleconference, please let me know.

-Audrey

From: Thomas Saporito [<mailto:saprodani@gmail.com>]
Sent: Tuesday, December 02, 2014 2:39 PM
To: Klett, Audrey
Cc: Banic, Merrilee; Chereskin, Alexander
Subject: Re: Update on your 2.206 Petition re. Turkey Point

Hello Audrey:

In review of your recent email related to the 2.206 Enforcement Petition, you stated in part, that:

Because the NRC staff evaluated and reached resolution on the remaining portions of the petition, the PRB recommends not accepting the remaining portions of the petition for further review in the 2.206 process.

In addition, you offered me another opportunity to discuss this matter with the NRC PRB members. However, before I can redress the NRC PRB in this matter, I request that you provide me with the specific details regarding your comments as delineated above so that I can respond accordingly in requesting further discussion via a teleconference call. Specifically, please state what was the resolution reached by the PRB on the remaining portions of the petition?

Regards,

Thomas Saporito
401 Old Dixie Hwy #3525
Tequesta, Florida 33469

Voice: 561-972-8363
Email: saprodani@gmail.com

On 12/2/2014 8:33 AM, Klett, Audrey wrote:

Hi Mr. Saporito,

The NRC's Petition Review Board (PRB) met to discuss your 2.206 petition and recommends to accept a portion of your petition for further review under the 2.206 process. Specifically, the PRB recommends to accept the portion of the petition related to the root cause of the increased cooling canal temperatures for further review under the 2.206 process. Because the NRC staff evaluated and reached resolution on the remaining portions of the petition, the PRB recommends not accepting the remaining portions of the petition for further review in the 2.206 process. For the reasons discussed in the NRC's safety evaluation for the amendments issued to Turkey Point on August 8, 2014, the PRB recommends not granting your request to maintain Turkey Point in a cold shutdown mode of operation.

As documented in Section 4OA3.2 of NRC's Integrated Inspection Report No. 05000250(251)/2014004, dated October 23, 2014 (ADAMS Accession No. ML14296A129), the NRC staff opened an Unresolved Item that documents the staff's plans to inspect the licensee's root cause of the cooling canal conditions and associated corrective actions. The staff intends to complete its inspection activities by March 31, 2015, and issue its associated inspection report within 45 days of that date. After completion of the NRC's inspection activities and issuance of the associated report, the staff will determine the resolution of your 2.206 petition.

NRC's Management Directive 8.11 provides you the opportunity to comment on the PRB's recommendations via a meeting or teleconference. Please let me know if you wish to do so.

Audrey Klett

Project Manager

NRR/DORL/LPLII-2

301-415-0489

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