PMTurkeyCOLPEm Resource

From: Comar, Manny
Sent: Tuesday, March 13, 2012 1:28 PM
To: orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher
Cc: Comar, Manny
Subject: Draft RAI 6346 related to SRP Section 09.02.01 - Station Service Water System for the Turkey Point Units 6 and 7 combined license application.
Attachments: draft RAI 6346_TPN.doc

To All,

Attached is the draft of RAI No:6346, regarding section 09.02.01 Station Service Water System for the Turkey Point Units 6 and 7 combined license application.

If you need a conference call to discuss the question(s) of the draft RAIs please contact me at 301-415-3863. Unless you request additional clarification we will normally issue the RAI as final within 3 to 5 days, from today.

Thanks

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Request for Additional Information No. 6346

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: 09.02.01 - Station Service Water System
Application Section: 9.2.11

QUESTIONS for Balance of Plant and Technical Specifications Branch (BPTS)

09.02.01-***

Based on the applicant's response to Letter 29, RAI 5491, Question 09.02.01-3, the staff had follow-up questions related to the raw water system (RWS).
This RAI response stated that:

> It is unlikely that a failure of raw water system (RWS) to provide adequate makeup flow to the SWS cooling tower basins would occur during the short time period in which the service water system (SWS) is performing a regulatory treatment of nonsafety-related system (RTNSS) function, as described above. However, if a failure were to occur, the remaining available inventory in the service water cooling tower basins and the stored water, which is available in the additional excess volume of the secondary fire water tank, would provide ample time (more than 24 hours) to restore the RWS makeup flow or take the procedural actions necessary to exit the conditions for RTNSS applicability. Therefore, the RWS is not required to be a RTNSS system or subject to investment protection short-term availability controls.
> <u>The RWS is designed to be a highly reliable and robust system capable</u> of operating during a loss of normal alternating current (ac) power to provide makeup flow to the SWS under normal and abnormal conditions. Procedural controls, which provide for continued operation of the RWS or re-establishment of operations under off normal conditions, will be described in the operating procedures, where appropriate.
> An ample inventory of raw water is available to provide makeup to the SWS cooling tower basins. As noted in Turkey Point Nuclear (PTN) COL FSAR Section 9.2.11.2.2.3, a raw water storage tank serving both PTN Units 6 and 7 (Note: GDC 5, "Sharing of Structures, Systems, and Components," does not apply since the RWS is not an important to safety system as discussed previously) receives potable water supplied from the Miami-Dade Water and Sewer Department (MDWASD). The potable water supply piping enters the PTN Units 6 and 7 plant area from the north and is routed to the raw water storage tank located to the east of PTN Units 6 and 7 (FSAR Figure 1.1-201). The raw water ancillary pumps are located at grade elevation in close proximity to the above ground raw water storage tank, which continually receives makeup from the potable water supply. Should the potable water supply to the raw water storage tank be interrupted, the volume <u>of water in the tank would provide sufficient time</u> to temporarily supply water from another onsite water source, such as reclaimed water from the makeup water reservoir (MWR). The MWR has a capacity well in excess of that needed to support cooldown to cold shutdown conditions and maintain the station in Mode 5 for greater than 7 days.

Follow-up questions that should be addressed in the COL FSAR or RAI response.

1. Provide the volume of the RWS storage tank. A bounding volume of the RWS storage tank could be provided to support 'sufficient time to restore the potable water supply' for various flow requirements; such as, power operations, support for shutdown conditions and SWS RTNSS conditions.
2. The flow rate of the RWS pumps was not provided and reviewed to the AP1000 required flow rate (to support RWS being adequate designed). Established AP1000 raw water makeup flow requirements can be found in ML090760819 (publicly available).
3. The reclaimed water connections and system line-up from the MWR to support the SWS is not clearly defined in the FSAR (drawings or text does not show interconnections). If temporary equipment is needed for this water makeup source, provide statement that supports 'sufficient time to restore the potable water supply'.
4. Flow rate of the reclaimed makeup water pumps to support SWS makeup is not defined.
5. Since the MWR is a backup water source for the ESWS cooling tower, describe any negative SWS system performance issues with the cleanliness of the MWR water. Describe if the SWS cooling tower efficiency is affected by the change in water supply.

09.02.01-***

COL FSAR Table 1.8-203, Plant Interface Item 9.5, Requirements for location and arrangement of raw and sanitary water systems.

· Section is missing 9.2.6