

## TurkeyPointLANPEm Resource

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**From:** Tomonto, Bob [Bob.Tomonto@fpl.com]  
**Sent:** Thursday, July 17, 2014 1:32 PM  
**To:** Klett, Audrey  
**Subject:** Request for Emergency Approval - Revision to the Ultimate Heat Sink Temperature Limit  
**Attachments:** 20140717133858.pdf

Audry,

FPL is requesting the USNRC review the subject UHS License Amendment on an emergency basis.

Bob Tomonto P.E.  
FPL Turkey Point Nuclear Plant  
Licensing Manager

**Hearing Identifier:** TurkeyPoint\_LA\_NonPublic  
**Email Number:** 352

**Mail Envelope Properties** (BC11E06857D1C6439A83B4D1D937E6912C43C45C)

**Subject:** Request for Emergency Approval - Revision to the Ultimate Heat Sink  
Temperature Limit  
**Sent Date:** 7/17/2014 1:31:58 PM  
**Received Date:** 7/17/2014 1:31:59 PM  
**From:** Tomonto, Bob

**Created By:** Bob.Tomonto@fpl.com

**Recipients:**  
"Klett, Audrey" <Audrey.Klett@nrc.gov>  
Tracking Status: None

**Post Office:** GOXSA1809.fplu.fpl.com

| <b>Files</b>       | <b>Size</b> | <b>Date &amp; Time</b> |
|--------------------|-------------|------------------------|
| MESSAGE            | 196         | 7/17/2014 1:31:59 PM   |
| 20140717133858.pdf | 184135      |                        |

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



10 CFR 50.90  
10 CFR 50.91  
L-2014-226  
July 17, 2014

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Renewed Facility Operating License Nos. DPR-31 and DPR-41

Subject: License Amendment Request No. 231, Application to Revise Ultimate Heat Sink Temperature Limit – Request for Emergency Approval

Reference: Florida Power & Light Company Letter L-2014-216, “License Amendment Request No. 231, Application to Revise Technical Specifications to Revise Ultimate Heat Sink Temperature Limit,” dated July 10, 2014

In the referenced letter, Florida Power & Light Company (FPL) requested an amendment to the Technical Specifications (TS) for the Turkey Point Nuclear Plant (Turkey Point), Units 3 and 4 pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(5). This letter clarifies that the referenced application was not requested to be processed in accordance with the emergency provisions of 10 CFR 50.91(a)(5) at the time of submission. The cited reference to 10 CFR 50.91(a)(5) was an administrative oversight. At this time, however, FPL requests the referenced application be approved on an emergency basis.

The proposed amendment would revise the ultimate heat sink (UHS) water temperature limit from 100°F to 104°F (less instrument uncertainty). The cooling canal system (CCS) temperature has been recently trending higher than historical averages in part due to unseasonably dry weather and has approached the current 100°F limit on a few occasions. While this request is not related to the safe operation of the plant, FPL requests a timely review of this application to avoid exceeding the current limit which would necessitate a dual unit shutdown which would impact grid reliability.

The enclosure to this letter contains information for considering the referenced application pursuant to 10 CFR 50.91(a)(5). The enclosed information does not alter the determination of no significant hazards and the environmental considerations contained in the application.

There are no new commitments made in this submission.

In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the State Designee of Florida.

If you have any questions or require additional information, please contact Mr. Robert Tomonto at 305-246-7327.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on:

Very truly yours,



Michael Kiley  
Vice President  
Turkey Point Nuclear Plant

Enclosure: Basis for Emergency - Application to Revise Ultimate Heat Sink Temperature Limit

cc: USNRC Regional Administrator, Region II  
USNRC Project Manager, Turkey Point Nuclear Plant  
USNRC Senior Resident Inspector, Turkey Point Nuclear Plant  
Ms. Cindy Becker, Florida Department of Health

## Turkey Point Units 3 and 4

### Basis for Emergency Concerning License Amendment Request No. 231 Application to Revise Ultimate Heat Sink Temperature Limit

#### 1.0 Background

An algae bloom in the Turkey Point cooling canal system (CCS) has reached a level of cell concentration that is reducing cooling efficiency. Along with reduced water levels due to lower than normal rainfall, the CCS is experiencing cell concentrations of algae higher than previously observed, as well as, occurring earlier in the year than previous blooms.

Turkey Point Technical Specification (TS) 3/4.7.4 Limiting Condition for Operation (LCO) limits CCS (Ultimate Heat Sink) temperature to less than or equal to 100 degrees Fahrenheit (°F). CCS temperature has recently approached the limit (e.g. 99.612 °F on 6/25/14 and 99.713 °F on 6/29/14, as recorded in Plant Data System). Algae presence has the potential to increase solar radiation and thermal stratification of the CCS, which likely contributes to an increase in CCS temperature.

Florida Power & Light Company (FPL) has undertaken a comprehensive study to determine the cause of the algae bloom and CCS water changes, and to determine actions to avoid this condition. Among the recommended actions taken, FPL has initiated a biocide treatment plan in order to reduce the algae and restore the heat transfer characteristics of the CCS water (Reference 2). This treatment plan has received approval from the Florida Department of Environmental Protection and is following a well-established protocol.

In addition, analyses were conducted to determine if the TS 3/4.7.4 temperature limit could be increased without adversely impacting safety or adjacent habitat, and as a result of the findings, a license amendment application was submitted to increase the limit to 104°F (Reference 1).

#### 2.0 Impact of Exceeding the 100°F TS Limit

If the limit of 100°F in TS LCO 3/4.7.4 is exceeded, the current TS requires both units to be placed in at least HOT STANDBY within 12 hours and COLD SHUTDOWN within the next 30 hours. Loss of load and voltage control from the Turkey Point nuclear units during periods of high summer demand would result in impacts to grid reliability.

#### 3.0 Reason the Emergency Cannot be Avoided

The current condition of the Turkey Point CCS is a new condition that has not been experienced before. FPL has taken prompt, preventative action to address the CCS water condition as discussed above in Section 1.0, including the analyses to support increasing the ultimate heat sink temperature limit. Furthermore, strong electric demand due to high summer temperatures and humidity are forecasted to continue. For these reasons, FPL requests the NRC staff to consider the reference application on an emergency basis.

#### 4.0 References

1. Florida Power & Light Company Letter L-2014-216, "License Amendment Request No. 231, Application to Revise Technical Specifications to Revise Ultimate Heat Sink Temperature Limit," dated July 10, 2014
2. Florida Power & Light Company Letter L-2014-223, "Approval of the Request for the use of Copper Sulfate, Hydrogen Peroxide and A Bio-Stimulant in the Treatment and Control of Blue Green Algae in the Cooling Canal System (CCS) – NRC Notification," dated July 15, 2014