

## **NRR-DMPSPeM Resource**

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**From:** Buckberg, Perry  
**Sent:** Monday, November 27, 2017 9:42 AM  
**To:** Frehafer, Ken  
**Cc:** Mack, Jarrett (Jarrett.Mack@fpl.com); 'Snyder, Mike'; Catron, Steve; Shoop, Undine  
**Subject:** Request for Additional Information - St. Lucie IST Relief Request #5 - PR-01 (L-2017-LLR-0113)  
**Attachments:** Final RAI - St. Lucie 5th 10 Yr RR PR-01 (L-2017-LLR-0113) 11-21-17 .pdf; DRAFT RAI - St. Lucie 5th 10 Yr RR PR-01 (L-2017-LLR-0113) .docx

Ken,

By letter dated October 06, 2017 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML17279A037), Florida Power & Light Company submitted seven St. Lucie requests for alternatives to the NRC. Alternative request PR-01 requests an alternative for Reactor Coolant Charging Pumps from the requirement of ISTB-3510(e), "Frequency Response Range," of the "American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants," (ASME OM Code). The staff has identified areas where additional information is needed to complete the review.

The NRC staff's Request for Additional Information (RAI) related to PR-01 is attached. A draft version of this RAI was provided to you on November 16, 2017, and based on a clarification call held on earlier today, the final RAI was modified for clarity. The draft RAI is also attached.

Consistent with our communications earlier today, the NRC requests that the response to the attached final RAI be issued within 30 days of this email.

Thanks,

**Perry Buckberg**

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Office of Nuclear Reactor Regulation  
Mail Stop O-8B1a  
Washington, DC, 20555-0001

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**Subject:** Request for Additional Information - St. Lucie IST Relief Request #5 - PR-01  
(L-2017-LLR-0113)  
**Sent Date:** 11/27/2017 9:42:12 AM  
**Received Date:** 11/27/2017 9:42:00 AM  
**From:** Buckberg, Perry  
**Created By:** Perry.Buckberg@nrc.gov

**Recipients:**  
"Mack, Jarrett (Jarrett.Mack@fpl.com)" <Jarrett.Mack@fpl.com>  
Tracking Status: None  
"Snyder, Mike" <Mike.Snyder@fpl.com>  
Tracking Status: None  
"Catron, Steve" <Steve.Catron@fpl.com>  
Tracking Status: None  
"Shoop, Undine" <Undine.Shoop@nrc.gov>  
Tracking Status: None  
"Frehafer, Ken" <Ken.Frehafer@fpl.com>  
Tracking Status: None

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MESSAGE	1340	11/27/2017 9:42:00 AM	
Final RAI - St. Lucie 5th 10 Yr RR PR-01 (L-2017-LLR-0113) 11-21-17 .pdf			83753
DRAFT RAI - St. Lucie 5th 10 Yr RR PR-01 (L-2017-LLR-0113) .docx			20803

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**REQUEST FOR ADDITIONAL INFORMATION**

**ST LUCIE NUCLEAR PLANT, UNITS 1 AND 2**

**DOCKET NOS. 50-335 AND 50-389**

**5<sup>TH</sup> 10 YEAR IST RELIEF REQUEST - PR-01**

**DOCKET NOS. 50-335 AND 50-389**

**EPID L-2017-LLR-0113**

**RAI-LLR0113-MVIB-01**

By letter dated October 06, 2017 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML17279A037), Florida Power & Light Company (FPL) submitted seven requests for alternatives to the NRC. Alternative request PR-01 requests an alternative for Reactor Coolant Charging Pumps (RCCPs) from the requirement of ISTB-3510(e), "Frequency Response Range," of the "American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants," (ASME OM Code). ISTB-3510 (e), requires that the frequency response range of the vibration-measuring transducers and their readout shall be from one-third minimum pump shaft rotational speed to at least 1000 Hz.

The RCCPs are positive displacement pumps that operate at approximately 200 rpm, which equates to a rotational frequency of 3.41 Hz. The one-third minimum speed frequency response correlates to 1.13 Hz. The current instrument being used to measure frequency meets all of the ASME OM Code requirements down to 1.5 Hz, but does not meet the low end accuracy requirement at the one third minimum speed (1.13 Hz) requirement of ISTB-3510(e). In addition, vibrational calibration services utilized at St. Lucie cannot calibrate to less than 2 Hz using standards traceable to NIST. In Alternative Request PR-01, the licensee states that they are in the process of finding a qualified calibration supplier, but this process has not been completed and is not expected to be completed by the start of the Fifth 10-Year IST Interval.

In current Alternative Request PR-01, the September 25, 2008, approval of this same request for the current Fourth 10-year IST Interval is provided as the precedent. In the Alternative Request for the Fourth 10-year IST Interval, the December 7, 2000, approval of the same request for the Third 10-year IST Interval was provided as the precedent. Please provide a more specific time frame for finding a qualified calibration supplier.

# **DRAFT**

## **REQUEST FOR ADDITIONAL INFORMATION**

### **ST LUCIE NUCLEAR PLANT, UNITS 1 AND 2**

#### **DOCKET NOS. 50-335 AND 50-389**

#### **5<sup>TH</sup> 10 YEAR IST RELIEF REQUEST - PR-01**

#### **DOCKET NOS. 50-335 AND 50-389**

#### **EPID L-2017-LLR-0113**

By letter dated October 08, 2017 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML17279A037), Florida Power & Light Company (FPL) submitted seven requests for alternatives to the NRC. Alternative request PR-01 requests an alternative for Reactor Coolant Charging Pumps (RCCPs) from the requirement of ISTB-3510(e), "Frequency Response Range," of the "American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants," (ASME OM Code). ISTB-3510 (e), requires that the frequency response range of the vibration-measuring transducers and their readout shall be from one-third minimum pump shaft rotational speed to at least 1000 Hz.

The RCCPs are positive displacement pumps that operate at approximately 200 rpm, which equates to a rotational frequency of 3.41 Hz. The one-third minimum speed frequency response correlates to 1.13 Hz. The current instrument being used to measure frequency meets all of the ASME OM Code requirements down to 1.5 Hz, but does not meet the low end requirement of the one third minimum speed (1.13 Hz) requirement of ISTB-3510(e). In Alternative Request PR-01, the licensee states that they are in the process of finding a qualified calibration supplier, but this process has not been completed and is not expected to be completed by the start of the Fifth 10-Year IST Interval.

In current Alternative Request PR-01, the September 25, 2008, approval of this same request for the current Fourth 10-year IST Interval is provided as the precedent. In the Alternative Request for the Fourth 10-year IST Interval, the December 7, 2000, approval of the same request for the Third 10-year IST Interval was provided as the precedent. Please provide a more specific time frame for finding a qualified calibration supplier.