

## NRR-PMDAPEm Resource

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**From:** Lyon, Fred  
**Sent:** Wednesday, March 19, 2014 7:19 AM  
**To:** Wideman Steve G  
**Cc:** telwood@ameren.com; samaglio@cal.ue.com; Muilenburg William T; Westman Mike J; OKeefe, Neil; Peabody, Charles; Hartman, Thomas; Markley, Michael  
**Subject:** RE: SR 3.7.11.1 License Amendment Request - Options

I spoke with our senior reviewer, Carl Schulten, in STSB (TSs) and he agreed completely with what I told you on the phone yesterday, as did the branch chief for SCVB (ventilation).

You should not be in SR 3.0.3. SR 3.0.3 derives from GL 87-09 and is for when a SR is inadvertently exceeded. It presumes that the SR has been previously been satisfactorily performed on schedule. If the SR is challenged by the inspector, it is up to the inspector to prove that the SR is insufficient. The inspector cannot set a new standard.

Your TS 3.7.11 and SR 3.7.11.1 conforms to the Westinghouse STS. The SR is not a measurement of heat rate; it is a validation of the system design. The staff recognizes that HXs are not instrumented to measure heat rate; therefore, the SR is a gross determination of capability. Since heat rate cannot be measured directly, the SR is in essence a paper check, using parameters that can be read on a gauge or measured in a test by an operator, i.e., a combination of testing and calculations, that validate the design. If the measured parameters validate the design, and the design specification is sufficient to remove the heat load assumed in the safety analysis, then it is satisfactory.

In accordance with IMC 0326 (the new operability guidance document), you should have an OD in place. You should (1) write a letter to the NRC on the docket, responding to the NCV, providing your OD, the history of the surveillance/issue, and explaining why the SR is adequate to meet the requirements of 10 CFR 50.36, i.e., tying the SR-measured parameters back to the safety analysis number, and (2) request a TS interpretation from NRR in accordance with IN 97-80.

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**From:** Wideman Steve G [mailto:stwidem@WCNOC.com]  
**Sent:** Thursday, March 13, 2014 2:54 PM  
**To:** Lyon, Fred  
**Cc:** telwood@ameren.com; samaglio@cal.ue.com; Muilenburg William T; Westman Mike J  
**Subject:** SR 3.7.11.1 License Amendment Request - Options

Fred – Tom Elwood and I left you a voice mail message today at about 12:45 CDT. We want to set up a time where we could discuss with you a couple of options concerning the need for a license amendment related to SR 3.7.11.1 and the short timeframe by which it would be needed.

Provided below is a discussion of the issue and the two options.

On November 1, 2012, the Nuclear Regulatory Commission (NRC) Resident Inspector determined that the procedures for testing and inspection of the CRACS trains (SGK04A/B) were not adequate to meet the requirements of SR 3.7.11.1. The inspector indicated that SR 3.7.11.1 requires a performance test and calculation to verify a CRACS train has the capability to remove the assumed heat load (NCV 05000482/2012005-04).

The TS Bases for SR 3.7.11.1 stated (prior to Rev. 61 on 2/27/14), in part:

“This SR consists of verifying the heat removal capability of the condenser heat exchanger (either through performance testing or inspection), ensuring the proper operation of major components in the refrigeration cycle and verification of unit air flow capacity.”

The inspector indicated that the inspection and cleaning of the SGK04A/B heat exchangers in conjunction with verifying proper refrigeration system operation and proper air handling flow was not a performance test that verifies the capability to remove the assumed heat load. On November 1, 2012, control room personnel entered SR 3.0.3 for a missed surveillance (SR 3.7.11.1). A risk evaluation was performed to delay performance of the SR for up to the limit of the specified Frequency (18 months).

The application of SR 3.0.3 for SR 3.7.11.1 will expire on 5/1/14 for WCGS and 5/7/14 for the Callaway Plant.

WCNOC and Callaway have been working with industry HVAC subject matter experts (SME) to develop a heat transfer test that would measure the capability of the CRACS trains to remove the assumed heat load. With SME assistance, a new method for heat transfer testing that involved detailed modelling of the CRACS trains and condensers was developed and believed would provide an acceptable testing protocol. Test procedures were then developed based upon this new method and testing of the WCGS CRACS trains was performed prior to shutting down for the mid-cycle 20 outage. Data analysis and model runs concluded that the test conditions produced invalid results. Low lake temperatures resulting in low flow conditions and excess refrigerant sub-cooling placed the test condition too far removed from design for a valid calculation.

WCNOC has continued to perform inspection and cleaning of the heat exchangers and performing flow verification tests consistent with the guidance of Generic Letter 89-13. This provides assurance that the system is capable of performing its specified function.

Therefore, based on the impracticality of being able to measure the capability of the CRACS trains to remove the assumed heat load (by a performance test and calculation) a license amendment request is needed to provide for additional time to either 1) determine if there is an acceptable performance test and calculation or 2) revise SR 3.7.11.1 to be consistent with the testing being performed to meet the guidance of Generic Letter 89-13. The attached files provide draft revisions to reflect these two options.

We would like to discuss the approach to be taken given the short time frame that NRC approval would be needed. Could you please let Tom and myself know when you would be available to discuss. We would like to try and have the discussion either today (although I know it is already late) or tomorrow.

Steve Wideman  
WCNOC Licensing  
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**Hearing Identifier:** NRR\_PMDA  
**Email Number:** 1180

**Mail Envelope Properties** (Fred.Lyon@nrc.gov20140319071900)

**Subject:** RE: SR 3.7.11.1 License Amendment Request - Options  
**Sent Date:** 3/19/2014 7:19:10 AM  
**Received Date:** 3/19/2014 7:19:00 AM  
**From:** Lyon, Fred

**Created By:** Fred.Lyon@nrc.gov

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**Post Office:**

Files	Size	Date & Time
MESSAGE	5791	3/19/2014 7:19:00 AM

**Options**

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