

## NRR-PMDAPEm Resource

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**From:** Miller, Ed  
**Sent:** Wednesday, April 09, 2014 3:14 PM  
**To:** 'Murphy, George M (George.Murphy2@duke-energy.com)'  
**Subject:** Draft RAI for AFW suction swap-over setpoint  
**Attachments:** Draft BOP RAI.docx

George,

The NRC staff's draft RAI (Balance of plant) for the subject LAR is attached to this e-mail. The draft RAI is not an official NRC staff request and is being provided to you to facilitate a subsequent conference call to determine: 1) If the questions clearly convey the NRC staff information needs; 2) Whether the regulatory basis for the questions is understood; and 3) Whether the information is already available in existing, docketed, correspondence. After you've had a chance to review the draft information request, please contact me to schedule the conference call. Thanks.

Ed Miller  
(301) 415-2481

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**From:** Miller, Ed

**Created By:** Ed.Miller@nrc.gov

**Recipients:**  
"Murphy, George M (George.Murphy2@duke-energy.com)" <George.Murphy2@duke-energy.com>  
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DRAFT REQUEST FOR ADDITIONAL INFORMATION

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

PROPOSED CHANGES TO TECHNICAL SPECIFICATION 3.3.2

IN SUPPORT OF COMPLIANCE WITH NRC ORDER EA-12-049

DOCKET NOS. 50-369 AND 50-370

By letter dated September 12, 2013, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13262A500), Duke Energy Carolinas (Duke) submitted a license amendment request (LAR) to amend the Technical Specifications (TS) 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," FUNCTION 6.f, "Auxiliary Feedwater Pump Suction Transfer on Suction Pressure – Low (c)" for McGuire Nuclear Station, Units 1 and 2, in support of plant modifications required to achieve compliance with the NRC Order EA-12-049, "Order Modifying Licenses with Regard to Requirements of Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012. In order for the NRC staff to complete its review of the LAR, the following additional information is requested.

1. In the submittal, Duke stated:

The existing safety-related automatic alignment of NSW to the AFW pumps' suction is achieved by means of pressure switches which open AC-motor operated valves. The pressure switches are located on the AFW pump suction lines. The AFW MDPs utilize two pressure switches per train (one switch per isolation valve). The TDAFWP utilizes four switches per train. A low pressure signal sensed by two switches on either train will cause the assured NSW supply of water for the pump to be aligned.

The NRC staff acknowledges that a low pressure signal sensed by two switches on a train of pressure switches associated with the motor-driven auxiliary feedwater pump will open flow from the service water header to the pump's suction. However, the submittal indicated that the turbine-driven auxiliary feedwater pump has four pressure switches per train. From the description given, it appears that there are actually two trains of two switches in this logic, each train associated with a different nuclear service water header. If this is the situation, the above statement, "A low pressure signal sensed by two switches on either train will cause the assured NSW supply of water for the pump to be aligned," would not be true for all cases for the turbine-driven auxiliary feedwater pump. In this case, only a select two pressure switches of the four switches will open flow from a service water header.

The NRC staff requests the licensee to clarify its description of the pressure switch logic associated with the turbine-driven auxiliary feedwater pump and make any necessary changes.

SBPB-RAI-2

2. The licensee is proposing different setpoints for the pressure switches on the "2A" motor-driven auxiliary feedwater pumps. The Technical Specifications are combined for Unit 1 and Unit 2. Figure 1 in Attachment 4 shows some piping configurations are different for the two units, especially where the new "SSS/ELAP" supply of water ties into the suction piping.

The NRC staff requests confirmation that the elevation difference for the "2A" motor-driven auxiliary feedwater pumps is 2-feet on both units.