

## ArevaEPRDCPEm Resource

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**From:** Miernicki, Michael  
**Sent:** Wednesday, October 23, 2013 2:22 PM  
**To:** ArevaEPRDCPEm Resource  
**Subject:** FW: US EPR DC DRAFT RAI 612, Chapter 3, Section: 03.09.06 - Functional Design Qualification and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints  
**Attachments:** Draft RAI 612\_ EMB\_7238.docx

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**From:** Miernicki, Michael  
**Sent:** Wednesday, October 23, 2013 2:21 PM  
**To:** "usepr@areva.com" ([usepr@areva.com](mailto:usepr@areva.com))  
**Cc:** Scarbrough, Thomas; Clark, Theresa; Segala, John  
**Subject:** US EPR DC DRAFT RAI 612, Chapter 3, Section: 03.09.06 - Functional Design Qualification and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints

Attached please find Draft RAI No. 612 regarding your application for standard design certification of the U.S. EPR. If you have any questions or need clarification regarding this Draft RAI, please let me know as soon as possible, I will have our technical Staff available to discuss them with you.

Please also review the Draft RAI to ensure that we have not inadvertently included proprietary information. If there is any proprietary information, please let me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the Draft RAI publicly available.

Thank You,

Mike

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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
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**From:** Miernicki, Michael

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**Request for Additional Information 612**

Issue Date: 10/23/2013

Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020

Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 03.09.06 - Functional Design Qualification and Inservice Testing Programs for Pumps,  
Valves, and Dynamic Restraints

Application Section: 3.9.6

**QUESTIONS**

**03.09.06-21**

Describe the inservice testing provisions and their bases specified for the additional pumps included in Revision 5 to U.S. EPR FSAR Tier 2, Table 3.9.6-1, "Inservice Pump Testing Program Requirements." As part of this description, discuss the basis for the absence of vibration testing for positive displacement pumps.

**03.09.06-22**

Describe the valve inservice testing provisions and their bases for the changes made in Revision 5 to the U.S. EPR FSAR Tier 2, Table 3.9.6-2, "Inservice Valve Testing Program Requirements." For example, provide the following information:

- a. Discuss the new valves with manual actuators in Table 3.9.6-2, and the basis for relying on manual action for their safety functions.
- b. Discuss the deletion of Containment Inflating/Deflating and Leakoff Valves from Sheets 12 and 13 of Table 3.9.6-2.
- c. Discuss the addition of Passive Flooding Motorized Isolation Valves on Sheet 14 of Table 3.9.6-2, including specification of these valves as ASME OM Category B when they have leakage testing requirements in the table.
- d. Discuss the basis for changing the designation of the Medium Head Safety Injection (MHSI) check valves on Sheets 23, 25, 26, and 27 of Table 3.9.6-2 from an SA (self-actuated) valve to an MA (manual) actuator.
- e. Discuss the valves on Sheets 24 and 25 of Table 3.9.6-2, and their duplicate numbers of 30JND11AA008, 009, and 012 for three pairs of valves. Also, discuss the specification of the 30JND11AA012 valves as passive valves when they have exercising and stroke time testing requirements in the table.
- f. Discuss the basis for changing the designation of the Low Head Safety Injection (LHSI) check valves on Sheets 28, 33, 37, and 42 of Table 3.9.6-2 from an SA (self-actuated) to an MA (manual) or MO (motor-operated) actuator.
- g. Discuss the change of active valve 30PEB80AA004 on Sheet 101 of Table 3.9.6-2 from an MA (manual) to an MO (motor-operated) actuator, without specification of stroke time testing requirements in the table.
- h. Discuss the basis for addition and deletion of various Emergency Diesel Generator (EDG) fuel system (XJN) valves, and their basis, on Sheets 123 to 127 of Table 3.9.6-2.
- i. Discuss the basis for the addition and deletion of the various EDG operating system (XJX) valves, and their basis, on Sheets 133 to 136 of Table 3.9.6-2.

**03.09.06-23**

Tier 1 of Revision 5 to the U.S. EPR FSAR does not match some of the planned changes specified in the response to RAI 14.03.03-54. In particular, discuss the following differences between the RAI response and Revision 5 to the U.S. EPR FSAR:

- a. ITAAC 3.1 in the "Inspections, Tests, Analyses" column of Table 2.2.2-3, "In-Containment Refueling Water Storage Tank System ITAAC," in Tier 1 of Revision 5 to the U.S. EPR FSAR did not delete "pumps and" as specified in the RAI response.
- b. Subsection 3.2 in Section 2.6.8, "Containment Building Ventilation System," in Tier 1 of Revision 5 to the U.S. EPR FSAR does not match the response provided to RAI 14.03.03-54. The RAI response stated that valves listed in Table 2.6.8-1 will function to change position as listed in Table 2.6.8-1 under normal operating conditions. Subsection 3.2 in Section 2.6.8 in Tier 1 of Revision 5 to the U.S. EPR FSAR refers only to Class 1E valves in Table 2.6.8-3 to change position.
- c. ITAAC 3.2 in Table 2.6.8-4, "Containment Building Ventilation System ITAAC," in Tier 1 of Revision 5 to the U.S. EPR FSAR does not match the response to RAI 14.03.03-54. The RAI response stated that valves listed in Table 2.6.8-1 will function to change position as listed in Table 2.6.8-1 under normal operating conditions. This ITAAC in Revision 5 to the U.S. EPR FSAR refers only to Class 1E valves in Table 2.6.8-3 to change position.