

ArevaEPRDCPEm Resource

From: Eudy, Michael
Sent: Thursday, March 20, 2014 11:43 AM
To: HOTTLE Nathan (AREVA)
Cc: ArevaEPRDCPEm Resource
Subject: RE: midloop presentation
Attachments: Mid-Loop-Operation Final 3.19.2014.pptx

Here is our electronic copy of the staff slides.

I will put all this in a meeting summary package very shortly.

From: HOTTLE Nathan (AREVA) [<mailto:Nathan.Hottle@areva.com>]
Sent: Thursday, March 20, 2014 11:41 AM
To: Eudy, Michael
Subject: midloop presentation

Mike – I understand that you need a copy of the presentation from yesterday. See attached.

Nathan Hottle
AREVA Inc.
3315 Old Forest Road
Lynchburg, VA 24501
Phone 434-832-3864
Mobile 434-485-4239
nathan.hottle@areva.com

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From: Eudy, Michael

Created By: Michael.Eudy@nrc.gov

Recipients:
"ArevaEPRDCPEm Resource" <ArevaEPRDCPEm.Resource@nrc.gov>
Tracking Status: None
"HOTTLE Nathan (AREVA)" <Nathan.Hottle@areva.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

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EPR Mid-Loop Operation

Regulatory Basis

- **GDC-34 Residual heat removal**
 - RHR has capability to transfer decay /residual heat from the reactor such that fuel and pressure boundary design limits are not exceeded with sufficient redundancy
- **GL 88-17**
 - Two independent, continuous temperature & level indications/alarms in the control room
 - Procedures include prevention of loss of RHR & enhanced monitoring requirements
 - Two available or operable means of adding inventory to the RCS
 - Analysis to show pressurizer manway provides sufficient vent path to limit the pressurization
 - Hot leg manway will be the first manway to be opened, and a hot leg nozzle dam will be the last dam to be installed
 - Hot leg manway and its associated hot leg pipe will be kept open to provide an adequate vent path whenever any cold leg openings are made
 - Containment closure
- **SRP 5.4.7 RESIDUAL HEAT REMOVAL (RHR) SYSTEM**
 - Restates GL 88-17 in more general terms
- **SRP 14.3.4 ITAAC**

EPR Mid-Loop Operation

Safety Concerns

- **There is not sufficient information provided to describe the by-pass switch functionalities during Mode 5 & 6 operations**
 - 1. Level sensors and trip set points**
 - 2. Related MHSI and LHSI operations and procedures**
 - 3. ITAAC info**
- **There is not sufficient information regarding steam generator man-way geometrical dimension**
 - 1. Can nozzle dam be used with the current design?**

EPR Mid-Loop Operation

Safety Concerns (Con't)

- **Design provisions to reasonably ensure the continuity of flow through the core and RHR system with low-liquid levels at the junction of the RHR system suction lines and the RCS (new PWR applicants only) has not been completed.**
- **The RHR-specific guidance and measures contained in Generic Letter 88-17 has been partially addressed.**