

PMLevyCOLPEm Resource

From: Kitchen, Robert [Robert.Kitchen@duke-energy.com]
Sent: Monday, January 06, 2014 4:01 PM
To: Habib, Donald
Subject: FW: Condensate Return Audit
Attachments: PXS Calc List Rev 1.docx

As we discussed today, attached is the updated list of documents that will be available for NRC audit on condensate return.

From: Smith, Sylena E [<mailto:smithse@westinghouse.com>]
Sent: Monday, January 06, 2014 3:42 PM
To: Kitchen, Robert; Gamberg, Robert C; Waters, David
Subject: RE: Condensate Return Audit

*** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Bob,

Attached is the revised list, as promised in the meeting.

I spoke to Cheryl Robinson this morning. She said that the two front rooms are reserved on Thursday. So the NRC reviewers MUST call as soon as possible to make sure there is space available. (I think everyone is starting the new year off at a sprint.)

Sylena
412 374 4994
mobile: 724 504 2946

-----Original Appointment-----

From: Kitchen, Robert [<mailto:Robert.Kitchen@duke-energy.com>]
Sent: Monday, January 06, 2014 1:34 PM
To: Habib, Donald; Smith, Sylena E; Gamberg, Robert C; Waters, David
Subject: Condensate Return Audit
When: Thursday, January 09, 2014 2:00 PM-3:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: 704-382-8080/866-385-2663 (PC: 9482259#)

This call is to discuss any questions re NRC initial look at documents supporting the condensate return design change that are not impacted by the change. Audit of revised documents is planned to start the week of 1/21/14.

Hearing Identifier: Levy_County_COL_Public
Email Number: 1225

Mail Envelope Properties (A0C0A819D3B935458A74ACB9D554AE1E4B09287D)

Subject: FW: Condensate Return Audit
Sent Date: 1/6/2014 4:01:05 PM
Received Date: 1/6/2014 4:01:21 PM
From: Kitchen, Robert

Created By: Robert.Kitchen@duke-energy.com

Recipients:
"Habib, Donald" <Donald.Habib@nrc.gov>
Tracking Status: None

Post Office: IMCLTEXCP60.nam.ent.duke-energy.com

Files	Size	Date & Time
MESSAGE	1508	1/6/2014 4:01:21 PM
PXS Calc List Rev 1.docx		25347

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

Shutdown Temperature Evaluation & Condensate Return Supporting Calculations

Office space can be made available at the Westinghouse Twinbrook offices for review of the following calculations. Please contact Cheryl Robinson at 301-881-7040 at least 24 hours in advance to reserve meeting space.

The following documents will be available for review.

Condensate return calculations (Available week of January 21)

APP-PXS-M3C-071, Rev. 1, Containment Response Analysis for Long-Term PRHR Operation
WGOTHIC analysis that develops the containment response for long-term PRHR operation to support the IRWST condensate return study.

APP-PXS-M3C-072, Rev. 1, Condensate Return to IRWST for Long Term PRHR Operation
Uses the steam mass losses to calculate the condensate losses occurring on the containment shell.

APP-PXS-M3C-020, Rev. 3, PRHR HX Sizing / Performance
Determines the PRHR HX performances in natural/forced flow, the RCS cooldown and the related IRWST heatup and boildown. Calculates IRWST level and volume with input from APP-PXS-M3C-034.

APP-SSAR-GSC-536, Rev. 2, **AP1000** Safe Shutdown Temperature Evaluation
Details the updated LOFTRAN Safe Shutdown Temperature analysis.

Reference documents

APP-PXS-M3C-002, Rev. 0, “Passive Core Cooling System (PXS) Condensate Return Downspout Sizing”

Establishes the parameters which define the PXS Downspouts and confirms that DBA conditions do not preclude the PXS downspouts from performing their safety function.

APP-PXS-M3C-033, Rev 2, “Containment Flood-up Volume Calculation”

Calculates the maximum floodup free volume in the containment as a function of elevation for the purpose of evaluating the long term cooling performance of the passive safety injection

APP-PXS-M3C-034, Rev. 3, “Containment Floodup Level”

Determined the initial containment flood levels following ADS actuation, the final wall-to-wall flooding level and the time that level can be reached.

Test reports

WCAP-12980, Rev. 3, “AP600 Passive Residual Heat Removal Heat Exchanger Test Final Report”
Part of this report provides the results of Transient Tests conducted to determine the mixing characteristics of the IRWST. Subsection 8.4 summarizes the conclusions of these tests.

TS-SEE-III-11-03, Rev. 1, “**AP1000** PXS Condensate Drain Gutter Test Specification” (previously reviewed)

TR-SEE-III-12-01, Rev 0, “**AP1000** PXS Condensate Return Test Report” (previously reviewed)

Drawings

AP1000 PXS P&IDs

Original drawings:

- a. DCD Rev 19 Figure 6.3-1, “Passive Core Cooling System Piping and Instrumentation Diagram (Sheet 1)”
- b. DCD Rev 19 Figure 6.3-2, “Passive Core Cooling System Piping and Instrumentation Diagram (Sheet 2)”

Revised drawings

- a. Proposed DCD Figure 6.3-1 (Sheet 1 of 3), “Passive Core Cooling System Piping and Instrumentation Diagram” (Same as original drawing)
- b. Proposed DCD Figure 6.3-1 (Sheet 2 of 3), “Passive Core Cooling System Piping and Instrumentation Diagram”
- c. Proposed DCD Figure 6.3-1 (Sheet 3 of 3), “Passive Core Cooling System Piping and Instrumentation Diagram”