

PMLevyCOLPEm Resource

From: Kitchen, Robert [Robert.Kitchen@duke-energy.com]
Sent: Friday, January 03, 2014 3:52 PM
To: Habib, Donald
Cc: Waters, David; Gamberg, Robert C
Subject: FW: Documents Available for Condensate Return Audit
Attachments: PXS Calc List Rev 0.docx

Don - Attached is listing of WEC documents that support condensate return design change. We have a call on Monday to discuss availability of these for NRC audit next week. The calculations that are being revised will not be available until week of 1/20.

-----Original Message-----

From: Smith, Sylena E [smithse@westinghouse.com]
Sent: Friday, January 03, 2014 03:33 PM Eastern Standard Time
To: Kitchen, Robert
Cc: RICE, APRIL R; Aughtman, Amy G.; Franzone, Steve
Subject: Documents Available for Condensate Return Audit

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

Hello,

Attached is a list of documents the NRC can use for developing their audit plan. They have seen most of these titles before. And they have reviewed two of the test reports.

Sincerely yours,

Sylena E. Smith

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Mail Envelope Properties (A0C0A819D3B935458A74ACB9D554AE1E4B091730)

Subject: FW: Documents Available for Condensate Return Audit
Sent Date: 1/3/2014 3:52:24 PM
Received Date: 1/3/2014 3:52:32 PM
From: Kitchen, Robert

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

Recipients:

"Waters, David" <David.Waters2@duke-energy.com>
Tracking Status: None
"Gamberg, Robert C" <Robert.Gamberg@duke-energy.com>
Tracking Status: None
"Habib, Donald" <Donald.Habib@nrc.gov>
Tracking Status: None

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Files	Size	Date & Time
MESSAGE	1301	1/3/2014 3:52:32 PM
image001.png	6500	
PXS Calc List Rev 0.docx		23383

Options

Priority: Standard
Return Notification: No
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Shutdown Temperature Evaluation & Condensate Return Supporting Calculations

The following documents will be available for audit.

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-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

- a. APP-PXS-M6-001, Rev. 10
- b. APP-PXS-M6-002, Rev. 11
- c. APP-PXS-M6-003, Rev. 9
- d. APP-PXS-M6-004, Rev. 10
- e. APP-PXS-M6-005, Rev. 0