

From: "Kozyra, Jan" <jan.kozyra@pgnmail.com>
To: "Richard Emch" <RLE@nrc.gov>
Date: Wed, Jun 22, 2005 3:40 PM
Subject: FW: Cooling Towers

See below. The condensate cooling mod was not installed; the 375 gpm is not being used.

> -----Original Message-----

> From: Turkal, Mark
> Sent: Wednesday, June 22, 2005 3:13 PM
> To: Kozyra, Jan
> Subject: RE: Cooling Towers

>
> <<EPU Mods.pdf>>

> Jan,

>
> As we discussed, Brunswick ultimately determined that the condensate
> cooling modification was not necessary. The primary reason for the
> mod was a concern with resin breakdown due to higher condensate
> temperatures expected post-EPU. Rather than install a new cooling
> system, we found resin that could better withstand increased
> temperature and this obviated the need for new system. The attached
> pdf is the section of our original EPU submittal which states that
> the modifications needed for implementation planned actions not
> commitments and that the list may change based on further engineering
> evaluations.

> Mark

> -----Original Message-----

> From: Kozyra, Jan
> Sent: Wednesday, June 22, 2005 12:32 PM
> To: Turkal, Mark
> Subject: Cooling Towers

>
> See attached, page 36041, first column, "Cooling Tower Impacts, and
> third column, "Water Use Impacts."

>
> << File: getdoc.pdf >>

Mail Envelope Properties (42B9BE98.9C1 : 14 : 51649)

Subject: FW: Cooling Towers
Creation Date: Wed, Jun 22, 2005 3:38 PM
From: "Kozyra, Jan" <jan.kozyra@pgnmail.com>

Created By: jan.kozyra@pgnmail.com

Recipients

nrc.gov
OWGWPO02.HQGWDO01
RLE (Richard Emch)

Post Office

OWGWPO02.HQGWDO01

Route

nrc.gov

Files	Size	Date & Time
MESSAGE	1285	Wednesday, June 22, 2005 3:38 PM
TEXT.htm	2904	
EPU Mods.pdf	20657	
Mime.822	1	

Options

Expiration Date: None
Priority: Standard
Reply Requested: No
Return Notification: None

Concealed Subject: No
Security: Standard

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62 REQUEST FOR LICENSE AMENDMENTS EXTENDED POWER UPRATE

List of Planned Modifications

The following is a list of currently planned modifications necessary to support Extended Power Uprate (EPU). Unless otherwise indicated, the modifications will be implemented on both Brunswick Steam Electric Plant (BSEP) Unit 1 and Unit 2. These modifications will be implemented during the next two refueling outages on each unit (i.e., refueling outages beginning in March 2002 (B114R1) and March 2004 (B115R1) for Unit 1 and March 2003 (B216R1) and March 2005 (B217R1) for Unit 2). Modifications performed during the first refueling outage on each unit will allow for a 5 to 7 percent uprate, from Rated Thermal Power (RTP). Modifications performed during the second refueling outage should allow the units to achieve the full uprate to 2923 megawatts thermal (MWt). The following modifications constitute planned actions on the part of Carolina Power & Light (CP&L) Company. Further evaluations may identify the need for additional modifications or, on the contrary, obviate the need for some modifications. As such, this list is not a formal commitment to implement the modifications exactly as described or per the proposed schedule. Additionally, various setpoint changes and changes to indicating ranges on certain control room and in-plant instrumentation, which may be necessary, are not listed.

Modifications Supporting Initial Uprate

1. First Load of GE14 Fuel

Unit 2 loaded the first batch of GE14 fuel during the Spring 2001 refueling outage.

2. High Pressure Turbine Replacement and Electro-Hydraulic Control Admission Mode Change

3. Main Generator Rewind (Unit 1)

This modification was completed on Unit 2 during the Spring 2001 refueling outage.

4. Reactor Feedwater Pump Turbine Replacement

5. Isophase Bus Cooling Upgrade (Unit 1)

6. Out-of-Step Relay and Blocking Modification

This modification addresses grid stability issues under EPU conditions.

7. Feedwater Heater Replacement

Unit 1 will require replacement of feedwater heaters 5A and 5B to support the initial uprate. Unit 2 does not require replacement of any feedwater heaters to support the initial uprate. However, for convenience, feedwater heater 4B, whose replacement is required to support the full uprate, will be replaced during the Spring 2003 refueling outage.

8. Condensate Cooling Modification

9. Generator Lockout Load Shed Modification

This modification assures adequate loss-of-coolant accident voltage support following a generator lockout.

10. Nuclear Instrumentation Upgrade

This modification results in a revision to the BSEP long-term solution to thermal-hydraulic stability from the existing Boiling Water Reactor Owners' Group (BWROG) Enhanced Option I-A long-term solution to the BWROG Option III solution. CP&L has requested, via separate submittal, a license amendment request (Serial: BSEP 01-0076, dated June 26, 2001) which supports this change.

11. Main Steam and Feedwater Vibration Monitoring Instrumentation

12. Potential modifications supporting Alternative Source Term implementation

Modifications Supporting Full Uprate

1. Standby Liquid Control (SLC) Upgrade

SLC upgrade supports the transition to GE14 fuel design, necessary to achieve the full EPU. This modification is not required until the second reload with GE14 on each unit. As such, the associated license amendments, revising the sodium pentaborate solution concentration requirements contained in Technical Specification 3.1.7, "Standby Liquid Control (SLC) System," will be submitted separate from the EPU submittal. Since Unit 2 has already had one reload using GE14 fuel, issuance of this amendment will be required in Spring 2003, to support initial Unit 2 uprate.

2. Stator Cooling Water Upgrade

3. Power System Stabilizer

This modification will provide feedback to the voltage regulatory to dampen oscillations following grid disturbances.

4. Isophase Bus Cooling Upgrade (Unit 2)

5. Main Transformer Replacement/Rewind

6. Condensate System Upgrade

7. Feedwater Heater Replacement

Unit 1 will require replacement of feedwater heaters 3A, 3B, and 4A to support the final uprate. Unit 2 will require replacement of feedwater heater 4B (i.e., to be performed during the Spring 2003, refueling outage) to support the final uprate.

8. Moisture Separator Reheater (MSR) Upgrade

9. Reactor Building Component Cooling Water System Heat Exchanger Retubing (Unit 1)

10. Condensate Filter Demineralizer (CFD) Upgrade

This modification will install longer filter elements to increase CFD filter element life.

11. MSR Relief Valve Modifications

This modification will implement higher setpoints and replace a spring in one valve

12. Reactor Feed Pump Upgrade