



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 17, 2008

LICENSEE: Tennessee Valley Authority

FACILITIES: Browns Ferry Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY OF JULY 18, 2008, MEETING WITH TENNESSEE VALLEY
AUTHORITY REGARDING STEAM DRYER PORTION OF THE EXTENDED
POWER UPRATE REVIEW (TAC NOS. MD5262 AND MD5263)

On July 18, 2008, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a Category 1 public meeting with Tennessee Valley Authority (TVA, the licensee) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss the NRC staff's concerns with the steam dryer analyses provided in support of the extended power uprate (EPU) amendment request for Browns Ferry Nuclear Plant. Due to the proprietary nature of the information being discussed, only portions of the meeting were open to the public. The enclosure contains a list of attendees. The licensee presented a slide presentation (see the Agencywide Documents Access and Management System accession No. ML082050419).

DISCUSSION

In a letter dated June 16, 2008, TVA completed the response to the NRC staff's Round 15 and 17 requests for additional information. The July 18th meeting was to address additional NRC staff concerns regarding the means intended to mitigate the two identified resonances, discuss the strategy proposed to improve the stress margin results, justify the application of substructure modeling in the manner proposed, and address the means proposed to address the identified noise.

The licensee addressed the two sources of resonance and the modifications planned to address them. The licensee has proposed the installation of an acoustic vibration suppressor (AVS) and acoustic side branch (ASB). It was discussed that the licensee believes that the larger resonance does not actually exist and the other is not as significant as that seen at Quad Cities Nuclear Power Station. The licensee is using a 1/8th scale model test to predict the performance of the ASB modification.

In the area of stress margin improvement the licensee presented their strategy to address the steam dryer limiting locations. TVA intends to use the ASB and AVS modifications in combination with substructure modeling to ensure that the minimum alternating stress ratio of 2.0 at EPU conditions is achieved. The NRC staff had questioned the licensee's intent regarding inspection for existing cracks in the welds at the limiting locations. The licensee indicated that the welds for Unit 1 were inspected prior to its restart in May 2007 and the other units would be inspected consistent with industry practice.

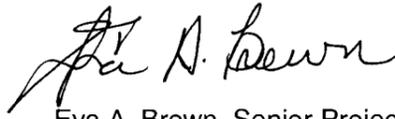
To more accurately address the local geometry and weld configuration for two areas on the dryer the licensee is applying substructure modeling. A four-step process was discussed. The NRC staff had multiple questions regarding the establishment of appropriate boundary conditions. Additionally, the NRC staff questioned the validity of the loading type used and the establishment of the reduction factor based on unit dynamic loading.

During the discussion, TVA provided a proposal regarding noise removal. The NRC had indicated various concerns including the removal of the low power strain gage data from current licensed thermal power strain gage data across the whole frequency range. This appeared to be different than other boiling-water reactor updates. The NRC staff emphasized that for any signal removed, it should be demonstrated that the noise being subtracted out of the signal is plant induced background noise and not the noise floors of the sensors and data acquisition systems.

The discussion continued regarding crediting of additional damping. The NRC staff indicated continuing skepticism regarding the amount of damping attributed by the analyses to other phenomenon. The licensee was requested to provide additional information to refine the steam dryer model and analysis.

The licensee provided a proposed schedule and license condition that would allow completion of the EPU review for all three units by January 2009 without providing all the information requested on Unit 3. As information needed to support the acoustic response for Unit 3 is similar to either of the other units, the NRC staff indicated the intent to remain focused on the units for which the requested information had been provided and did not commit to the license condition or the schedule proposed.

Members of the public were in attendance; however no feedback forms were received. No commitments or regulatory decisions were made by the NRC staff during the meeting.



Eva A. Brown, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-259 and 50-260

Enclosure: List of Attendees

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ADAMS Accession No.: Pkg: ML082050419

Mtg. Summary: ML082760583

• Non-Prop. Slides: ML082050462

Prop. Slides: 082050485 NRC-001

OFFICE	LPLII-2/PM	LPLII-2/LA	EMCB/BC	LPLII-2
NAME	EBrown	BClayton	KManoly	TBoyce
DATE	11/12/08	11/10/08	10/31/08	11/17/08

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List of Attendees
U. S. Nuclear Regulatory Commission
Public Meeting with Tennessee Valley Authority
Regarding Browns Ferry Power Uprate
July 18, 2008

U. S. NUCLEAR REGULATORY COMMISSION

Joseph Giitter
Patrick Hiland
Tracy Orf
Kamal Manoly
Chakrapani Basavaraju
Eva Brown

TENNESSEE VALLEY AUTHORITY

Michael Purcell
Kenneth Spates
James Emens
J.D. Wolcott
Denzel Housley
Robert Marks

CONTINUUM DYNAMICS INCORPORATED

Alan Bilanin
Alex Boschitsch

CONSTELLATION ENERGY CORPORATION

Gary Pavis
George Inch

ARGONNE NATIONAL LABORATORY

Vik Shah
Samir Ziada (by phone)

PENN STATE UNIVERSITY

Steve Hambric

STRUCTURAL INTERGRITY ASSOCIATES

Stan Tang

INTERNATIONAL CIVIL ENGINEERING
CONSULTANTS

Wen Tseng

GENERAL ELECTRIC - HITACHI

Patricia Campbell

NUCLEAR MANAGEMENT

Al Roderick