



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

March 26, 2013

LICENSEE: Tennessee Valley Authority

FACILITIES: Browns Ferry Nuclear Plant, Units 1, 2 and 3

SUBJECT: SUMMARY OF NOVEMBER 15, 2012, MEETING WITH THE TENNESSEE VALLEY AUTHORITY TO DISCUSS PROPOSED FUEL TYPE CHANGE (TAC NOS. ME8766, ME8767, AND ME8768)

On November 15, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a Category 1 public meeting with Tennessee Valley Authority (TVA, the licensee) at NRC Headquarters, 11555 Rockville Pike, One White Flint North, Rockville, Maryland. The purpose of the meeting was to discuss TVA's proposal to change the fuel type for Browns Ferry Nuclear Plant (BFN) Units 1, 2, and 3. The enclosure contains a list of attendees. The licensee presented a slide presentation (Agencywide Documents Access and Management System Accession No. ML12320A481).

DISCUSSION

The licensee provided an overview its planned submittal regarding a transition from AREVA ATRIUM-10 to ATRIUM-10XM fuel. The proposed fuel change would be targeted for use in the spring of 2015 for Unit 2, spring of 2016 for Unit 3, and the fall of 2016 for Unit 1. The licensee stated that the content of this planned license amendment request (LAR) was similar to the BFN Unit 1 ATRIUM-10 LAR with three exceptions. These exceptions were related to the:

- Addition of RODEX4 for thermal mechanical analyses;
- Addition of ACE for critical power ratio monitoring; and
- Replacement of SAFLIM2 safety limit methodology with SAFLIM-3D.

The licensee indicated that the cores will be comprised of all AREVA fuel types. The NRC staff indicated that regardless of the vendors, the use of different fuel types would be considered a mixed core. The licensee stated that the request would be at the current licensed thermal power for all three units; however the first use of the fuel type for Units 1 and 3 will be for an uprated core. The transition affects will need to be addressed in the extended power uprate (EPU) submittal. TVA indicated that changes to the safety limit minimum critical power ratio also will be requested for Unit 2 with this LAR. The NRC staff questioned the values proposed for two-loop operation, and indicated that this would be an area of focus during the review.

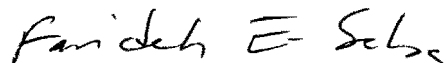
The affect that the ongoing activities related to issues, thermal conductivity degradation (TCD) and the ACE correlation was discussed. TVA indicated that a plant-specific analysis would be provided for both issues. For the TCD issue, the NRC staff questioned how the maximum average planar linear heat generation rate would be treated. The licensee indicated that no penalty would be assessed as the predicted curves are sufficient to counter the TCD affect.

Emerging issues were discussed associated with regulatory and guidance changes for a reactivity insertion accident, loss-of-coolant accident, and hydrogen content. The licensee indicated the intent to address these issues upon the issuance of requests for additional complete application addressing existing regulations and guidance, to the best information known at the time. A failure to address known issues with a regulation, guidance, or an approved methodology, may be considered an insufficiency during the acceptance review for the proposed amendment request.

The NRC staff commented that the proposed submittal dates appear to be within the same timeframe as other significant licensing actions including a voluntary fire protection licensing bases change, the EPU, and other activities related to the Fukushima orders and Title 10 of *Code of Federal Regulations*, Section 50.54(f) requests for information. The comment was related to the availability of resources for both the NRC and the licensee given the significant amount of review needed for all these items and the proposed fuel change. Additionally, the NRC staff identified a potential-linked amendment with the need to have approval to use the new fuel type, if it is being reviewed for the EPU planned submittal for the same timeframe. The NRC staff also mentioned that TVA should be aware that a licensee for another facility had identified a loss of stator cooling as a limiting event for the minimum critical power ratio analysis during the EPU review.

No members of the public were in attendance, and no feedback forms were received. No commitments or regulatory decisions were made by the NRC staff during the meeting.

Sincerely,



Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260 and 50-296

Enclosure: List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES
PUBLIC MEETING WITH TENNESSEE VALLEY AUTHORITY
REGARDING PROPOSED FUEL TYPE CHANGE
NOVEMBER 15, 2012

U. S. NUCLEAR REGULATORY COMMISSION

Ben Parks*
Matthew Panicker
Diana Woodyatt
Andrew Proffitt
Eva Brown

TENNESSEE VALLEY AUTHORITY

Greg Storey
Jim Lemmons
Tom Eichenberg
Brye Mitchell
John Osbourne
Mickey Bentley
James Emens
Tom Hess

AREVA

Alan McGinnis*
Dave McBirney*

* By phone

Enclosure

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/RA/

Farideh E. Saba, Senior Project Manager
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