



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

March 30, 2009

LICENSEE: Calvert Cliffs Nuclear Power Plant, Inc.

FACILITY: Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2

SUBJECT: SUMMARY OF MARCH 19, 2009, CATEGORY 1 PUBLIC MEETING WITH CALVERT CLIFFS NUCLEAR POWER PLANT, INC. AND AREVA TO DISCUSS TRANSITIONING FROM WESTINGHOUSE TO AREVA FUEL (TAC NOS. ME0887 AND ME0888)

On March 19, 2009, a public meeting was held between the Nuclear Regulatory Commission (NRC) and representatives of Calvert Cliffs Nuclear Power Plant, Inc. and AREVA at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, MD. The purpose of the meeting was to discuss the licensee's planned transition from Westinghouse to AREVA fuel.

The licensee stated their intention to transition from Westinghouse to AREVA fuel citing superior fuel performance. They intend to start loading AREVA fuel in Unit No. 2 beginning in the spring 2011 refueling outage and complete transitioning by spring 2015. Similarly, Unit No. 1 will begin loading AREVA fuel in spring 2012 and complete transitioning by spring 2016. Calvert Cliffs will be the last of the Combustion Engineering plants with 14x14 fuel assemblies to switch to AREVA fuel (the others being Millstone Unit No. 2, Fort Calhoun, and St Lucie Unit No. 1).

The licensee cited recent experience using AREVA lead fuel assemblies (LFAs) at Calvert Cliffs. Four AREVA LFAs with M5<sup>TM</sup> cladding have been twice burned in Unit No. 2. All four LFAs were inspecting during the spring 2007 refueling outage and two LFAs are currently located in high burnup regions in Unit No. 1 for a third cycle to evaluate fuel performance beyond the current limit of 60 GWD/MTU up to a projected peak pin burnup of 70 GWD/MTU.

The licensee plans to make a single submittal no later than January 2010. The submittal will include technical specification changes, a proposed permanent exemption to use AREVA fuel with M5<sup>TM</sup> cladding, and 2 of the 13 analyses from the Updated Final Safety Analysis Report (UFSAR) that will be reanalyzed by AREVA. The 2 analyses will be the realistic large-break loss-of-coolant accident and the loss of forced reactor coolant flow. The licensee provided their schedule for completing the remaining analyses which will be available for NRC audit.

Discussions with the NRC staff focused on the level of detail necessary in the upcoming submittal and included the following comments and observations:

- The staff pointed out that AREVA has not submitted topical reports on their fuel similar to other fuel vendors. The staff will expect the submittal to include fuel descriptions and design criteria similar to that found in topical reports.
- The staff voiced concern about how the licensee intends to justify peak pin burnup from 60 to 62 GWD/MTU. All aspects of increased fuel burnup will need to be addressed. Examples include dose calculations, fuel handling, mixed-core, and environmental concerns.

- Details of the proposed changes to the licensing basis were not included in the presentation. The licensee was reminded that all aspects of their licensing basis will need to be justified. An example of this concern is found on slide 8 where it is stated that "Calvert Cliffs fuel assemblies will be *essentially* the same design...." (emphasis added).
- The licensee plans to replace the incore monitoring system (CECOR/BASSS) with the AREVA incore monitoring system (POWERTRAX). The staff notes that conversions of this type typically occur over several years with an ongoing comparison of the uncertainties associated with the various core parameters being monitored. The submittal should discuss the time frame and method (i.e., 10 CFR 50.59 versus 10 CFR 90) of the planned conversion.
- As discussed above, 11 of the 13 UFSAR safety analyses to be re-performed by AREVA will not be included in the submittal. If the computer codes to be used in these analyses are currently known, it would be desirable to identify them in the submittal.
- The staff requested that justification be provided for any UFSAR safety analysis that is not re-performed.

Members of the public representing Westinghouse and Mitsubishi were in attendance. Public Meeting Feedback forms were available but comments were not received.

A list of meeting attendees is enclosed. A copy of the licensee's handouts can be found at Agencywide Documents Access and Management System Accession No. ML090780272.

Please direct any inquiries to me at 301-415-1364, or [Douglas.Pickett@nrc.gov](mailto:Douglas.Pickett@nrc.gov).



Douglas V. Pickett, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactors Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosure:  
As stated

Distribution via Listserv

LIST OF ATTENDEES

MARCH 19, 2009, MEETING WITH CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

AND AREVA

TRANSITION FROM WESTINGHOUSE TO AREVA FUEL

Calvert Cliffs Nuclear Power Plant, Inc.

Pat Furio  
Kevin Neitmann  
Tim Schearer  
Philip Wengloski

AREVA

Rod Kliewer  
Bob Baxter  
Gayle Elliott  
John Link

NRC

Mark Kowal  
Shih-Liang Wu  
Ben Parks  
Paul Clifford  
Mathew Panicker  
Doug Pickett

Members of the Public

Leslie Collins (Westinghouse)  
Jin Chung (Mitsubishi)

Enclosure

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**ADAMS Accession No. PKG ML090850244**

Meeting Notice ML090500152  
 Meeting Summary ML090850229  
 Handouts ML090780272

OFFICE	LPL1-1/PM	LPL1-1/LA	LPL1-1/BC
NAME	DPickett	SLittle	JBoska for MKowal
DATE	3/30/09	3/30/09	3/30/09

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