

## Davis-BesseNPEm Resource

---

**From:** CuadradoDeJesus, Samuel  
**Sent:** Tuesday, January 24, 2012 9:15 PM  
**To:** dorts@firstenergycorp.com; Davis-BesseHearingFile Resource  
**Subject:** DB Teleconference summary for your review.  
**Attachments:** 9 7 2011 DB NRC Telecon Summary.docx

**Importance:** High

### **Samuel Cuadrado de Jesús**

Project Manager

Projects Branch 1

Division of License Renewal

U.S. Nuclear Regulatory Commission

Phone: 301-415-2946

[Samuel.CuadradoDeJesus@nrc.gov](mailto:Samuel.CuadradoDeJesus@nrc.gov)

**Hearing Identifier:** Davis\_BesseLicenseRenewal\_Saf\_NonPublic  
**Email Number:** 3465

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D0806FD759AE)

**Subject:** DB Teleconference summary for your review.  
**Sent Date:** 1/24/2012 9:14:52 PM  
**Received Date:** 1/24/2012 9:14:53 PM  
**From:** CuadradoDeJesus, Samuel

**Created By:** Samuel.CuadradoDeJesus@nrc.gov

**Recipients:**

"dorts@firstenergycorp.com" <dorts@firstenergycorp.com>

Tracking Status: None

"Davis-BesseHearingFile Resource" <Davis-BesseHearingFile.Resource@nrc.gov>

Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	257	1/24/2012 9:14:53 PM
9 7 2011 DB NRC Telecon Summary.docx		36261

**Options**

**Priority:** High  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

LICENSEE: FirstEnergy Nuclear Operating Company

FACILITY: Davis-Besse

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON SEPTEMBER 7, 2011, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND FIRSTENERGY NUCLEAR OPERATING COMPANY, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE DAVIS-BESSE, LICENSE RENEWAL APPLICATION (TAC. NO. ME4640)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of FirstEnergy Nuclear Operating Company (FENOC or the applicant) held a telephone conference call on September 7, 2011, to discuss and clarify the applicant's responses to the staff's requests for additional information (RAIs) concerning the Davis-Besse license renewal application.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a description of the staff concerns discussed with the applicant. A brief description on the status of the items is also included.

The applicant had an opportunity to comment on this summary.

Samuel Cuadrado de Jesús, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Number:50-346

Enclosures:

1. List of Participants
2. List of Requests for Additional Information

cc w/encls: See next page

LICENSEE: FirstEnergy Nuclear Operating Company

FACILITY: Davis-Besse

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON SEPTEMBER 7, 2011 BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND FIRSTENERGY NUCLEAR OPERATING COMPANY, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE DAVIS-BESSE, LICENSE RENEWAL APPLICATION (TAC. NO. ME4640)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of FirstEnergy Nuclear Operating Company (FENOC or the applicant) held a telephone conference call on September 7, 2011, to discuss and clarify the applicant's responses to the staff's requests for additional information (RAIs) concerning the Davis-Besse, license renewal application.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a description of the staff concerns discussed with the applicant. A brief description on the status of the items is also included.

The applicant had an opportunity to comment on this summary.

Samuel Cuadrado de Jesús, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Number: 50-346

Enclosures:

1. List of Participants
2. List of Requests for Additional Information

cc w/encls: See next page

DISTRIBUTION: See next page

ADAMS Accession No.:

DOCUMENT NAME: Insert document name and full path.

OFFICE	LA:DLR	PM:RPB1:DLR	BC:RPB1:DLR
NAME		S Cuadrado de Jesús	D Morey
DATE	/ /	/ /	/ /

OFFICIAL RECORD COPY

SUMMARY OF TELEPHONE CONFERENCE CALL  
DAVIS-BESSE  
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS  
SEPTEMBER 7, 2011

PARTICIPANTS

AFFILIATIONS

Samuel Cuadrado de Jesús	U.S. Nuclear Regulatory Commission (NRC)
Seung Min	NRC
Bo Pham	NRC
Billy Rogers	NRC
Michelle Kichline	NRC
Cliff Custer	FirstEnergy Nuclear Operating Company (FENOC)
Steve Dort	FENOC
Kathy Nesser	FENOC
Allen McAllister	FENOC
Don Kosloff	FENOC
Larry Hinkle	FENOC
Jason Stelmaszak	FENOC
Luke Twarek	FENOC
Tom Summers	FENOC

SUMMARY OF TELEPHONE CONFERENCE CALL  
DAVIS-BESSE  
LICENSE RENEWAL APPLICATION  
**SEPTEMBER 7, 2011**

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of FirstEnergy Nuclear Operating Company (FENOC or the applicant) held a telephone conference call on September 7, 2011, to discuss and clarify the following **response to requests for additional information (RAIs)** concerning the Davis-Besse license renewal application (LRA).

This conference call was initiated by Sam Cuadrado de Jesus, NRC Project Manager for Davis-Besse License Renewal. The telecom took place at 2:30 PM on September 7, 2011. The purpose of the call was to discuss abandoned equipment, steam generator tube-to-tubesheet welds, LRA Table 3.3.2-14 missing items, and One-Time enhanced visual exams (EVT-1).

**August 17, 2011 Supplemental Response - Abandoned Equipment**

**Discussion:**

The staff asked the applicant about its plans to determine the status of the Davis-Besse abandoned in place abandoned equipment particularly their implementation of Commitment No. 26.

The applicant provided details of the action plan for the abandoned in place equipment, which will be conducted in the following three phases.

1. Determine the scope of abandoned equipment – includes review of the drawings, plant walkdowns, and reviewing the clearance database. The applicant stated that it plans to complete this action by November 15, 2011.
2. Determine the status of abandoned equipment – includes reviewing system status files and the eSOMS database, walkdowns to validate valve position status, and ultrasonic testing to confirm the abandoned piping is drained. The applicant stated that it plans to complete this action by January 3, 2012.
3. Place abandoned equipment in a configuration that will not impact safety-related equipment - create Operations Evolution Orders to isolate and drain systems with fluids, and create Document Change Requests to correct the configuration of the plant. The applicant stated that it plans to complete this action by February 15, 2012.

The staff stated that the applicant's plan was acceptable and requested that the above plan be submitted as part of its next RAI response letter. The applicant agreed to submit the above plan as part of the next RAI response letter to the staff, and that existing license renewal future Commitment No. 26 will be deleted since the timeline for resolution is prior to receipt of the renewed license.

The staff stated that this issue will be treated as an Open Item in the Safety Evaluation Report.

**ACTION:** The applicant to submit its action plan in its next RAI response letter.

**August 17, 2011 Supplemental Response - steam generator aging management review tube-to-tubesheet weld**

**Discussion:**

The next discussion was concerning the Davis-Besse steam generator (SG) tube-to-tubesheet welds. Prior to the call the staff provided to the applicant the following draft RAI:

**SG tube-to-tubesheet-welds Draft RAI 3.1.2.2.16-1**

Background

By its letter dated August 17, 2011, the applicant addressed its review results on cracking due to primary water stress corrosion cracking (PWSCC) of SG nickel alloy tube-to-tubesheet welds in response to the discussion held in a teleconference call dated July 13, 2011.

In the letter, the applicant stated that upon further review after the conference call with the NRC, it determined that the tube-to-tubesheet welds (Alloy 600 welds) for its SGs do not have a license renewal intended function and therefore, are not subject to an aging management review. The applicant also stated that the SGs are Babcock & Wilcox Model 177-FA, once-through design and the tubes and the tubesheets of the SGs form the pressure boundary between the fluid in the secondary system and the reactor coolant system. The applicant further stated that as provided in USAR Section 5.5.2.3, the tubes are expanded (to a partial depth) into the tubesheet and the tubes are seal welded to the tubesheet near the tube ends and that the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, Division 1, 1995 Edition with 1996 Addenda, IWA-9000 defines a seal weld as a nonstructural weld intended to prevent leakage, where the strength is provided by a separate means. In addition, the applicant stated that the "separate means" in this case being the tube-to-tubesheet expansion joint which forms the pressure boundary and that the tube-to-tubesheet welds are seal welds and therefore, are not part of the pressure boundary.

Issue

The applicant stated the tube-to-tubesheet welds (Alloy 600 welds) for its SGs do not have a license renewal intended function and therefore, are not subject to an aging management review. However, the staff found a need to further confirm that the original design analysis of the applicant's once-through SGs concluded that the interference fit between the tube and the tubesheets was sufficient to ensure the structural and leak-tight integrity of the tube-to-tubesheet joints, without a need for crediting the tube-to-tubesheet welds.

Request

1. Confirm that the original design analysis of the applicant's once-through SGs did not credit the tube-to-tubesheet welds for ensuring the structural and leak-tight integrity

of the tube-to-tubesheet joints. In other words, please, confirm that the original design analysis of the once-through SGs demonstrated that the interference fit between the tube and the tubesheets were capable of withstanding all design loads (with the appropriate margins) and for ensuring the leak-tight integrity of the joints.

2. If the original design analysis did not conclude that the interference fit between the tube and the tubesheets was sufficient to ensure the structural and leak-tight integrity of the tube-to-tubesheet joints, describe how cracking due to PWSCC will be managed in the SG tube-to-tubesheet welds.

The staff confirmed that the original design analysis of the applicant's once-through steam generators concluded that the interference fit between the tube and the tubesheets was sufficient to ensure the structural and leak-tight integrity of the tube-to-tubesheet joints, without a need for crediting the tube-to-tubesheet welds. After some discussion, the applicant stated that the RAI was understood and asked that the staff to issue the final RAI.

**ACTION:** The staff will issue a final version of RAI 3.1.2.2.16-1.

#### **LRA Table 3.3.2-14 items missing (8/26/11 Response letter)**

##### **Discussion:**

The staff noted that on page 4 of 36 of the enclosure, the applicant stated that all of LRA Table 3.3.2-14 was replaced with the table in the enclosure. However, the original table 3.3.2-14 had 2 sections, the first part was for the fire protection system (rows 1-153) and the second part was for the fire pump diesel engine (rows 154-224). The staff noted that the replacement table in the August 26, 2011, response letter only had 174 items. The staff performed a line by line comparison, and it appears that all the items for the original fire pump diesel engine section are missing. The staff stated that there was no text in the RAI response discussing why the items would have been deleted.

The applicant stated that the revised table was intended to replace only the fire protection system rows, and that the rows for the fire pump diesel engine section of Table 3.3.2-14 were not intentionally deleted or replaced. The applicant agreed that Table 3.3.2-14 requires revision to include the missing fire pump diesel engine rows and stated that a supplemental response would be included in the next RAI submittal to the NRC. The staff agreed to this action.

**ACTION:** The applicant will submit a revised Table 3.3.2-14 as a supplemental response in the next RAI response letter to the staff.

#### **One Time Inspection EVT-1 (8/26/11 Response letter)**

The final discussion was concerning the supplemental response for the One-Time Inspection enhanced visual inspection (EVT-1) for cracking of the makeup and purification pump casing submitted in the applicant's response letter dated August 26, 2011. The staff stated that EVT-1 (enhanced visual examination) should have been used rather than VT-1 in the applicant's response.



The applicant agreed and stated that a supplemental response would be included in the next RAI submittal to the staff. The staff agreed to this action

**ACTION:** The applicant will provide a supplemental response in the next RAI submittal to the staff.

SUBJECT: Summary of Telephone Conference Call conducted on September 7, 2011

DISTRIBUTION:

**HARD COPY:**

DLR RF

**E-MAIL:**

**PUBLIC [or NON-PUBLIC, if applicable]**

RidsNrrDir Resource  
RidsNrrDirRpb1 Resource  
RidsNrrDirRpb2 Resource  
RidsNrrDirRarb Resource  
RidsNrrDirRapb Resource  
RidsNrrDirRasb Resource  
RidsNrrDirRerb Resource  
RidsNrrDirRpob Resource

-----  
PCooper  
BHarris  
SCuadrado  
EMiller  
MMahoney  
ICouret, OPA  
TReilly, OCA  
BHarris, OGC