



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

MEMORANDUM TO: File

FROM: Stephen Sands, Project Manager, Section 2  
Project Directorate III-2  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 -  
RECEIPT OF DRAFT LETTER IDENTIFYING COMMITMENTS  
RE: BULLETIN 2001-01 (TAC NO. MB2626)

On November 27, 2001, the staff received the attached email message from the Davis-Besse licensee that contained a draft letter identifying commitments made by the licensee resulting from recent telephone conversations to resolve issues related to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles". The licensee requested that their draft letter be provided to appropriate staff to solicit their comments. It is the licensee's intent to incorporate staff comments and formally submit their letter.

Docket No. 50-346

Attachment: As stated

B/1

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NAME	S Sands	T Harris	A Mendiola
DATE	11/ /01	11/ /01	11/ /01

OFFICIAL RECORD COPY

Docket Number 50-346

License Number NPF-3

Serial Number

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Subject: Supplemental Information Regarding Inspection Plans and Commitments  
for the Davis-Besse Nuclear Power Station in Response to NRC Bulletin  
2001-01

Ladies and Gentlemen:

The purpose of this letter is to document the items discussed between the NRC and Davis-Besse Nuclear Power Station (DBNPS) staffs by telephone conversation during the week of November 26, 2001, to resolve issues related to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles".

For the past several months, the DBNPS staff has been involved in in-depth and comprehensive discussions with the NRC staff regarding the technical information contained in the DBNPS response to NRC Bulletin 2001 (FirstEnergy Nuclear Operating Company (FENOC) letter Serial Number 2731, dated September 4, 2001) and the supplemental information subsequently submitted in support of that response. Through these discussions and submittals of technical information, the DBNPS staff has presented its deterministic crack growth rate analyses and probabilistic safety assessment (PSA) evaluations that conclude safety margins will be preserved during the operation of the DBNPS until its next refueling outage (13RFO) scheduled to begin in late March 2002.

A shutdown of the DBNPS to conduct a special 100% qualified visual inspection of the reactor pressure vessel (RPV) head prior to the scheduled refueling outage would incur dose to workers that would only be repeated several short months later. Based on the results of its deterministic crack growth rate analyses and PSA evaluations, it is more prudent to continue to operate (as described below) and conduct the inspection at one time during the refueling outage. This prudence includes avoiding the additional dose to workers that would be incurred if an additional outage for the inspection were to be performed prior to the scheduled refueling outage.

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The DBNPS has notified the NRC in FENOC letter Serial Number 2731 of its commitment to perform a qualified visual inspection of the RPV head to determine if cracking of the control rod drive mechanism (CRDM) nozzles is evident. In discussions held during the week of November 26, 2001 with the NRC, the DBNPS staff discussed its plan and commitment to conduct, in addition to the 100% qualified visual inspection, non-destructive examination (NDE) of 100% of the CRDM nozzles and characterization of cracks, should cracks be detected.

The DBNPS also discussed its plan and commitment to reduce the reactor coolant system (RCS) hot leg temperature from 605°F to 598°F by December 16, 2001, for the remainder of the current operating cycle (Cycle 13). Industry data has shown that crack growth rate is dependent on RCS hot leg temperature and the reduction at DBNPS will provide additional safety margin by reducing crack growth rates. In addition, operator training will be conducted in order to further emphasize the recognition and response to small break loss-of-coolant and rod ejection accidents as would be seen in the unlikely event of a failed CRDM nozzle.

The DBNPS staff will also maximize the availability of the plant's redundant critical safety systems (e.g., Auxiliary Feedwater, High Pressure Injection, Low Pressure Injection, Decay Heat Removal, Emergency Diesel Generators) until commencement of 13RFO. This will be accomplished by minimizing on-line maintenance and testing of critical safety systems that can prudently be deferred until after the plant is shut down.

The DBNPS also informed the NRC of its plan and commitment to move up the scheduled refueling outage for the DBNPS to February 16, 2002. Though the core damage risk, considering operation to the presently scheduled refueling outage, is small using the guidance of Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk Informed Decisions on Plant Specific Changes to the Licensing Basis," the change in the refueling outage date demonstrates further conservatism in the FENOC decision making process.

In summary, these plant-specific integrated plans and commitments by the DBNPS are consistent in ensuring the continued safe operation of the DBNPS. As stated previously, these plans and commitments ensure that as-low-as-reasonably-achievable (ALARA) objectives will be implemented consistent with the safe and prudent operation of the plant.

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If you have any questions or require further information, please contact Mr. David H. Lockwood, Manager-Regulatory Affairs, at (419) 321-8450.

Very truly yours,

**Attachments**

cc: J. E. Dyer, Regional Administrator, NRC Region III  
D.V. Pickett, DB-1 Backup NRC/NRR Project Manager  
S. P. Sands, DB-1 NRC/NRR Project Manager  
D. S. Simpkins, DB-1 Acting Senior Resident Inspector  
Utility Radiological Safety Board

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Supplemental INFORMATION  
IN RESPONSE TO  
NRC BULLETIN 2001-01  
FOR  
DAVIS-BESSE NUCLEAR POWER STATION  
UNIT NUMBER 1

This letter is submitted pursuant to 10 CFR 50.54(f) and contains supplemental information concerning the response (Serial Number 2371, dated September 4, 2001) to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," for the Davis-Besse Nuclear Power Station, Unit Number 1.

I, Guy G. Campbell, state that (1) I am Vice President - Nuclear of the FirstEnergy Nuclear Operating Company, (2) I am duly authorized to execute and file this certification on behalf of the Toledo Edison Company and The Cleveland Electric Illuminating Company, and (3) the statements set forth herein are true and correct to the best of my knowledge, information and belief.

For: G. G. Campbell, Vice President - Nuclear

By: \_\_\_\_\_  
J. Messina, Director – Work Management

Affirmed and subscribed before me

\_\_\_\_\_  
Notary Public, State of Ohio

## COMMITMENT LIST

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Manager - Regulatory Affairs (419-321-8450) at the DBNPS of any questions regarding this document or associated regulatory commitments.

### COMMITMENT

### DUE DATE

In discussions held during the week of November 26, 2001 with the NRC, the DBNPS staff discussed its plan and commitment to conduct, in addition to the 100% qualified visual inspection, non-destructive examination (NDE) of 100% of the CRDM nozzles and characterization of cracks, should cracks be detected.

13RFO

The DBNPS also discussed its plan and commitment to reduce the reactor coolant system (RCS) hot leg temperature from 605°F to 598°F by December 16, 2001, for the remainder of the current operating cycle (Cycle 13).

December 16, 2001

The DBNPS staff will also maximize the availability of the plant's redundant critical safety systems (e.g., Auxiliary Feedwater, High Pressure Injection, Low Pressure Injection, Decay Heat Removal, Emergency Diesel Generators) until commencement of 13RFO. This will be accomplished by minimizing on-line maintenance and testing of critical safety systems that can prudently be deferred until after the plant is shut down.

December 16, 2001

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The DBNPS also informed the NRC of its plan and commitment to move up the scheduled refueling outage for the DBNPS to February 16, 2002.

February 16, 2002