

December 2, 1992

Docket No. 50-346

LICENSEE: TOLEDO EDISON COMPANY

FACILITY: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

SUBJECT: SUMMARY OF MEETING HELD ON NOVEMBER 19, 1992  
TO DISCUSS CONTAINMENT PENETRATION BELLOWES  
LOCAL LEAK RATE TESTING (IN 92-20)

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TKing	GGrant, EDO
	RGN III, DPR

On November 19, 1992, NRC staff members met at Rockville, Maryland, with employees of Toledo Edison Company (TE) to discuss local leak rate testing of containment penetration bellows at the Davis-Besse Nuclear Power Station, Unit 1. A list of attendees is included as enclosure 1. The handout used at the meeting is included as enclosure 2.

Davis-Besse has four containment penetrations for the feedwater and steam lines that have bellows. The bellows sizes are 40 inches and 60 inches. TE plans to perform the next Type B local leak rate tests (LLRTs) of these penetrations in a manner to check that test pressure propagates through the entire length of the bellows. If the LLRT proves inadequate, then TE might ask for an exemption based, in part, on their integrated leak rate test (ILRT) history. However, an ILRT is not planned to be performed during the upcoming refueling outage. The NRC staff asked what would be the radiation exposure if one of the tests was performed at power instead of waiting for the refueling outage. The NRC staff also asked what would be the acceptance criteria for this method of testing and if helium would be used for the test. The staff encouraged the licensee to continue to work on this issue including contingency test approaches or penetration bellows replacement in case the LLRTs prove inadequate. TE stated that they will continue to work on the issue and that they would get back to the staff with the information requested.

original signed by

Jon B. Hopkins, Sr. Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

cc w/enclosure:  
See next page

OFFICE	PDIII-3:LA:DRPW	PDIII-3:PM:DRPW	PDIII-3:PD:DRPW
NAME	PKreutzer	JBHopkins/jbh JBH	JHannon
DATE	12/1/92 <i>and</i>	12/1/92	12/2/92

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DOCUMENT NAME: g:\davisbes\db1119.mts

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OFFICE	PDIII-3:LA:DRPW	PDIII-3:PM:DRPW	PDIII-3:PD:DRPW
NAME	PKreutzer	JBHopkins/jbh JBH	JHannon
DATE	12/11/92	12/11/92	12/22/92

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DOCUMENT NAME: g:\davisbes\db1119.mts



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

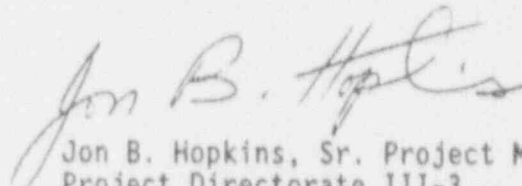
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Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

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As stated

cc w/enclosure:  
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Davis-Besse Nuclear Power Station  
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Enclosure 1

ATTENDEES

November 19, 1992

NAME

ORGANIZATION

J. Hopkins  
P. Smith  
E. Caba  
J. Hannon  
J. Kudrick  
J. Pulsipher  
M. Schreiber  
J. Barron

NRC  
TE  
TE  
NRC  
NRC  
NRC  
TE  
TE

Enclosure 2

Toledo Edison  
Meeting with NRC  
on  
Davis-Besse Response  
to  
Information Notice 92-20  
Containment Penetration  
Bellows

November 19, 1992

# Purpose

- Present Toledo Edison's actions to address IN 92-20 for Davis-Besse
- Actions taken to date
- Planned actions considering
  - \* Refueling Outage Schedule and Accessibility
  - \* Resources
- Potential Need for any Regulatory Action



# BACKGROUND

- IN 92-20 identifies containment below LLRT problems at Quad Cities (March 1992)
  - \* lack of flow path between plies of bellows
- Davis-Besse also has Pathway bellows (later design than Quad Cities)
- Same LLRT test method
- LLRT required during BRFO (non-ILRT outage)
- No bellows integrity problem based on five past ILRTs



# BACKGROUND

- Davis-Besse Orientation
  - \* Large steel containment with Shield Building (one of nine operating plants)
  - \* Emergency Ventilation System
  - \* No unfiltered leakage path from bellows
  - \* 4 penetrations; 2 bellows per penetration
  - \* Penetration location presents difficult access
  - \* Limited access except during refueling outages
  - \* High Pa (38 psig)

# ACTIONS TAKEN TO DATE

- Parallel Paths
- Validation of Current Test Method
- Consider Modifications/Alternative Tests
- Simple alternative tests complicated by
  - \* non-concentric configurations
  - \* high Pa (eliminates inflatable seal)
- 7 Bids - all cumbersome modifications
  - \* high initial cost
  - \* repetitive costs
- Surveyed other utilities (different situations)
- Modifications currently last resort

# 8RFO

- Validate Current Test Method
  - \* demonstrate gap in existing bellows
    - > bellows design
    - > installed configuration
  - \* If successful, accept current method as valid

# 9RFO (Contingent)

- ILRT outage
- Investigate/Develop Alternative Test Methods
  - \* UT
  - \* Gas Sniffing
  - \* Reduced Pressure LLRT

# REGULATORY IMPLICATIONS

- Type B LLRT Exemption
  - \* 8RFO if test validation questionable
  - \* 9RFO (based on ILRT)