

June 10, 1992

Docket No. 50-346

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LICENSEE: TOLEDO EDISON COMPANY

FACILITY: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

SUBJECT: SUMMARY OF MEETING HELD ON MAY 14, 1992 TO DISCUSS
FIRE PROTECTION REQUIREMENTS AT DAVIS-BESSE
(TAC NOS. M82089 AND M60995)

On May 14, 1992, NRC staff members met at Rockville, Maryland, with employees of Toledo Edison Company (TE) to discuss fire protection for 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.

Topics discussed included removal of detailed fire protection requirements from Technical Specifications (TS), testing of equipment by the alternate shutdown remote capability, circuit supervision, fire detection upgrade modification, an Appendix R exemption for the containment annulus, and a potential TS change relating to deenergization of DH-7A and DH-7B for normal plant operation.

During the discussion, the licensee stated that alternate shutdown transfer switch position is verified daily and there is no need for periodic testing of the transfer switches. The switches were functionally tested post-installation and had one complete surveillance test performed, which took about 2 years. For equipment qualification purposes, the switches would be either changed out or evaluated for continued life on a 20-year basis. The NRC staff stated that the transfer switches should be tested. The NRC staff further stated that Generic Letter (GL) 81-12 requested that the transfer switches be included in TS and GL 88-12 states that the transfer switches should remain in TS. The licensee agreed to review the difficulty of testing the switches for future discussion of this issue.

The NRC staff had no substantive comments regarding the remaining topics.

^{1.3/}
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/enclosures:
See next page
*LA:PDIII-3
PKreutzer
6/9/92

PM: PDIII-3
JHopkins:sw
6/10/92

*See Previous Concurrence
D:PDIII-3
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6/10/92

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20545

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LICENSEE: TOLEDO EDISON COMPANY

FACILITY: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

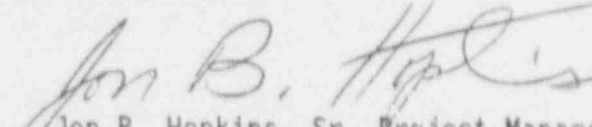
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Enclosures:
As stated

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May 14, 1992

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F. Orr	NRC/SRXB
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J. Wood	TE
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M. Murtha	TE
K. Roys	TE

NUCLEAR REGULATORY COMMISSION
TOLEDO EDISON

FIRE PROTECTION MEETING

MAY 14, 1992

TE/NRC FIRE PROTECTION MEETING AGENDA

1. INTRODUCTION/OVERVIEW
2. FIRE PROTECTION TECH SPEC REMOVAL STATUS
3. CIRCUIT SUPERVISION
4. FIRE DETECTION UPGRADE MODIFICATION
5. CONTAINMENT ANNULUS EXEMPTION STATUS
6. DH-7A AND DH-7B PROPOSED TECH SPEC CHANGE

CENTERIOR ENERGY

MOD 91-0046

MODIFICATION GOALS

- LICENSING COMMITMENTS
- ELIMINATE SPURIOUS ALARMS
- ELIMINATE EXTRANEIOUS DETECTION ZONES
- SEPARATE FROM SECURITY SYSTEM
- SUPERSEDE EXISTING DETECTION MODS

CENTERIOR ENERGY

MOD 91-0046

BASIC SYSTEM REQUIREMENTS

- MICROPROCESSOR BASED COMMUNICATIONS NETWORK
- ADDRESSABLE DETECTORS
- DEGRADED MODE OF OPERATION
- USE OF EXISTING WIRING

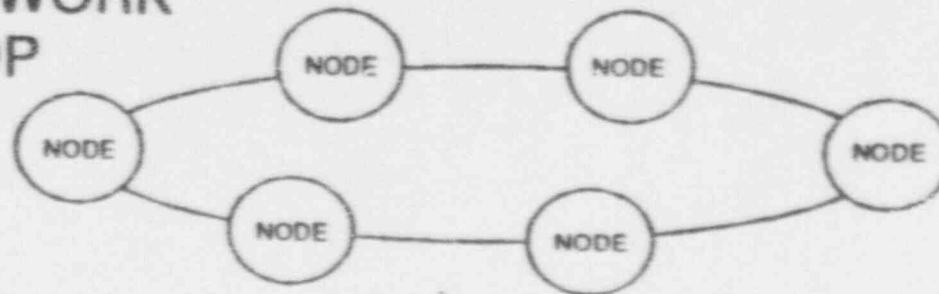
MOD 91-0046

BASIC SYSTEM SCOPE

- REPLACE 9 EXISTING PANELS
- REPLACE APPROX. 681 DETECTORS
- CONVERT APPROX. 26 PANELS TO JT/JB
- REDUCE TOTAL QUANTITY OF BELLS
- ELIMINATE EXTRANEIOUS DETECTION ZONES
- REPLACE CONTROL ROOM CRT AND PRINTER

4120 NETWORK LOOP

NETWORK
LOOP

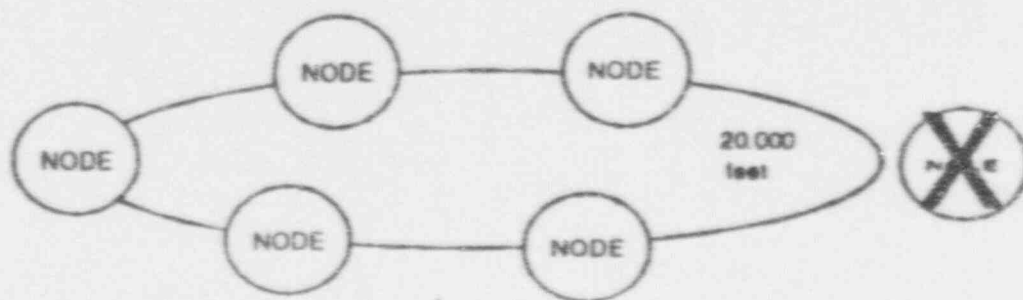


- **STYLE 7 WIRING (IN/OUT).**
- **18 AWG TWISTED SHIELDED WIRE; 1 PAIR.**
- **COMMUNICATIONS IS IN ONE DIRECTION.**
- **10,000 FEET BETWEEN NODES.**

CENTERIOR ENERGY

4120 NETWORK

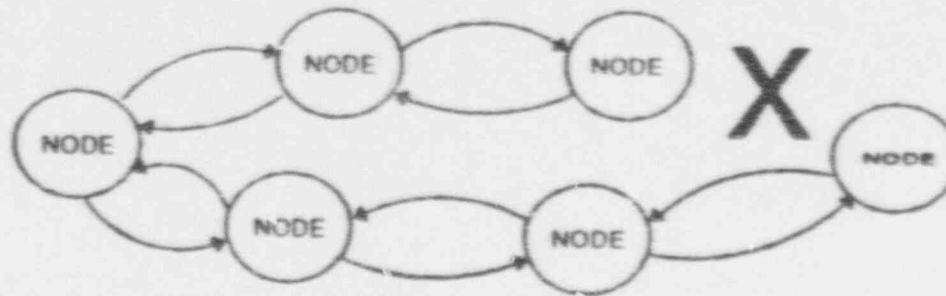
NODE FAILURE



- SYSTEM CAN STILL OPERATE WITH A FAILED NODE.

4120 NETWORK

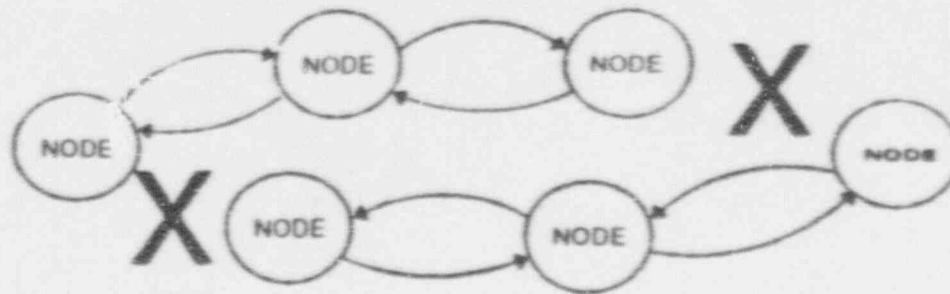
LINE FAILURE



- WHEN THE LOOP HAS AN OPEN OR SHORTED LINE, THE SYSTEM WILL COMMUNICATE IN BOTH DIRECTIONS.

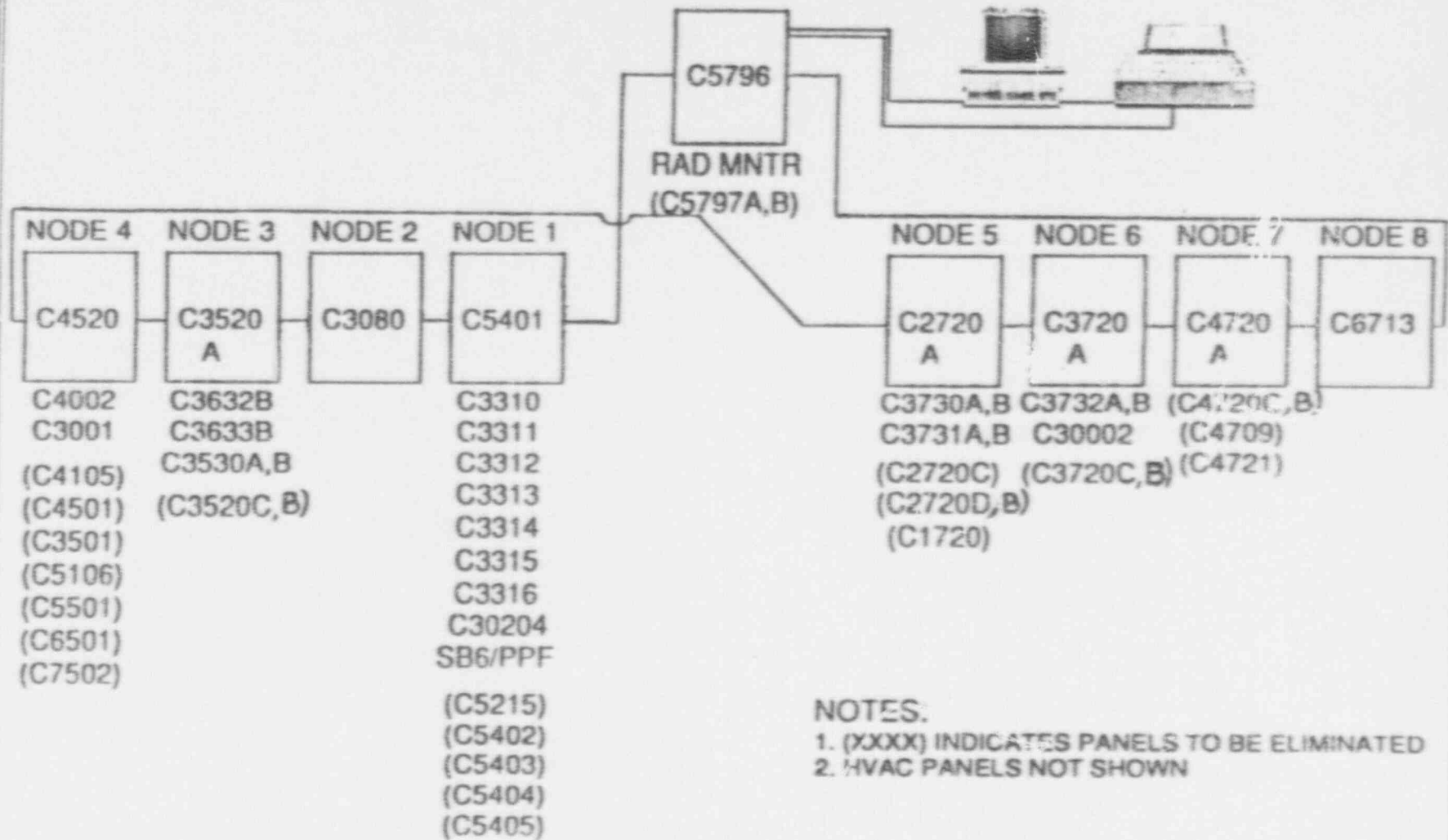
4120 NETWORK

DEGRADED OPERATION



- WHEN THE LOOP IS BROKEN OR WIRE TO WIRE SHORT AT TWO DIFFERENT LOCATIONS, EACH SECTION WILL COMMUNICATE TO THE NODES CONNECTED PROVIDING TWO DEGRADED LOOPS.

FIRE ALARM SYSTEM NETWORK SIMPLIFIED NETWORK DIAGRAM



CENTEHIOR ENERGY

DH-7A AND DH-7B INTRODUCTION

- DH-7A AND DH-7B ARE BWSTM OUTLET ISOLATION VALVES
- DH-7A AND DH-7B ARE INTERLOCKED WITH DH-9A AND DH-9B
- AMENDMENT 36 (01/24/81) PERMITTED MANUAL ACTIONS
- REMOVAL OF POWER TO DH-9A AND DH-9B
- SHIFT COMPOSITION

CENTERIOR ENERGY

DH-7A AND DH-7B ALTERNATIVES

- MAINTAIN PRESENT MANUAL ACTIONS.
- DE-ENERGIZE VALVES DH-7A AND DH-7B BY OPENING MOTOR OPERATED VALVE BREAKERS AT THEIR MOTOR CONTROL CENTERS (MCCs) .

DH-7A AND DH-7B BASIS FOR ACCEPTABILITY

- BWST LOW LEVEL PERMISSIVE FOR PUMP SUCTION TRANSFER OCCURS IN EXCESS OF 30 MINUTES POST-LOCA.
- BREAKER LOCATIONS FOR VALVE OPERATORS ARE LOCATED IN RADIOLOGICALLY ACCESSIBLE AREAS POST-LOCA.
- WITH POWER REMOVED, VALVE POSITION INDICATION IN THE CONTROL ROOM WILL BE AVAILABLE (AFTER MODIFICATION).
- OPERATOR ACTIONS FOR CLOSING DH-7A AND DH-7B BREAKERS ARE THE SAME AS THOSE FOR CLOSING DH-9A AND DH-9B. BREAKERS FOR DH-7B AND DH-9B ARE ON THE SAME MCCs.

DH-7A AND DH-7B ACCEPTABILITY (CONT.)

- EMERGENCY PROCEDURES WILL SPECIFY THESE MANUAL ACTIONS. OPERATORS WILL BE TRAINED ON THESE ACTIONS.
- NO OTHER REQUIRED MANUAL ACTIONS OUTSIDE CONTROL ROOM DURING FIRST HOUR POST-LOCA.