

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-346/78-03

Docket No. 50-346

License No. NPF-3

Licensee: Toledo Edison Company
Edison Plaza
300 Madison Avenue
Toledo, OH 43652

Facility Name: Davis-Besse Nuclear Generating Plant, Unit 1

Inspector At: Davis-Besse Site, Oak Harbor, OH

Inspection Conducted: February 27 - March 1, 1978

Inspector: *R. E. Masse*
R. E. Masse

3/13/78

Approved By: *W. S. Little*
W. S. Little, Chief
Nuclear Support Section

3/13/78

Inspection Summary

Inspection on February 27 - March 1, 1978 (Report No. 50-346/78-03)

Areas Inspected: Routine, unannounced inspection of the Unit 1 Fire Protection and Prevention Program including procedures, training and activities related to fire protection. The inspection involved 16 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

*T. Murray, Plant Superintendent
W. Green, Administrative Coordinator
J. Buck, Operations QA Coordinator
*R. Chesko, Operations Support Engineer (Station Fire Marshall)
*T. Hart, QA Engineer
V. Opfer, Shift Foreman (Ex-Station Fire Chief)
W. Nissen, Reactor Operator (Station Fire Chief)

*Denotes those present at the exit interview.

2. Action on Previous Inspection Findings

The inspector followed up on the following items which had remained open as a result of a previous fire protection inspection:

- a. The licensee had agreed to expand Emergency Procedure EP 1202.33 which deals with control room evacuation and subsequent shutdown to include cooldown and the use of alternate methods of cooldown if preferred methods are not available. This procedure has been revised to include the above by means of a reference to the appropriate cooldown procedure. The licensee is ensuring that copies of the procedure are at the appropriate locations outside the control room (Shutdown Panel area, local control areas). This item is considered closed.
- b. The licensee had agreed to develop a surveillance procedure to periodically verify the operability of emergency lighting. This procedure has been developed and is incorporated into the station surveillance program. This item is considered closed.
- c. The licensee had agreed to revise the work control procedure, AD 1844.00, to be more definitive as to which areas required operations approval or cognizance prior to commencement of work activities. The Shift Foreman must now approve all work orders relating to work within the operating plant boundaries (including safety related components and systems) prior to the start of work. This item is considered closed.

3. Work Control Procedures

The inspector verified that work control procedures have been developed and that they have defined the requirements for control and authorization of maintenance activities; that the Operations Department has cognizance of appropriate activities as previously detailed; that special permits have been established to control welding, burning, cutting or the use of ignition sources; and that Davis-Besse work of this type required a "two-man rule," one worker and one available as a fire watch while assisting. No items of noncompliance or deviations were identified.

4. Quality Assurance Surveillance and Design Change Controls

The inspector verified that QA procedures have been developed that require periodic audit of work authorizations for construction, modification and maintenance activities to ensure Operations' cognizance; and that administrative and QA verification have been required if cable penetrations have been installed, replaced or modified to confirm that appropriate non-flammable material is used. No items of noncompliance or deviations were identified.

5. Facility Inspection

The inspector determined that NELPIA performs periodic inspections of Davis-Besse Station as a result of being the fire insurer. The inspector reviewed the most recent reports available with emphasis on findings related to vital areas, recommended corrective action, and actions taken as a result of these findings. No items of non-compliance or deviations were identified.

6. Fire Fighting Training and Drills

Fire brigade members have extensive training which includes a 15 hour course ending in a state certification. Monthly drills have been established to maintain the certification. Drills are conducted weekly to ensure that each shift is drilled at least monthly. Each shift has a captain who is also a member of the local volunteer fire department. Several other members of the fire brigades are also local volunteers. Over half of all drills are conducted with Scott Air Packs so brigade members are familiar with the workings and wearing of them. The inspector reviewed the last few fire drills with the Station Fire Chief. No items of noncompliance or deviations were identified.

7. Emergency Procedures

The inspector reviewed all procedures relative to fire protection including the Emergency Plan and emergency procedures, fire detection, brigade composition, responsibilities, maintenance, training and drills. No areas of noncompliance or deviations were identified.

8. Fire Inspection Tour

In the company of the Station Fire Chief, the inspector made a tour of the facility examining alarms, extinguishing equipment actuating controls, fire equipment operability, penetration areas requiring special sealing materials, and general housekeeping with emphasis on control of fire hazards. Areas inspected included:

- a. Control room (including cabinet interiors)
- b. Cable spreading room
- c. Switchgear rooms
- d. Battery rooms
- e. Diesel generator rooms
- f. Various building areas and outside hose houses

The following comments are relative to the physical inspection of the aforementioned areas:

- a. General housekeeping was adequate with the exception of 13.8 KV switchgear room "B" which had several piles of combustibles against one wall being used as a storage area. The licensee has agreed to a prompt cleanup of this area and better control of the switchgear area.
- b. Lighting appeared adequate in all areas examined and a random check of emergency lighting was completed satisfactorily. Adequate numbers of Scott Air Packs and spare bottles were located in appropriate areas. Fittings compatible with local fire department equipment were available at hose stations. Penetration areas inspected were adequately sealed with approved and accepted sealant materials.

c. The Cable Spreading Room (CSR) is currently undergoing review by the Office of Nuclear Reactor Regulation. Toledo Edison Company has presented the case that the CSR is virtually fire-proof as a result of design and administrative controls over activity in the room. There are no automatic active or passive suppression systems in the CSR. Hose teams are the primary and backup methods of suppression and hose stations are located in close proximity to each of the three accesses into the CSR. The inspector observed that all penetrations appeared to be adequately sealed with approved materials and that Kaowool blankets covered all cable trays. The inspector verified that strict administrative and security controls exist for the CSR. A special "combustible materials permit" is used for the room and any person cleared for access must be accompanied by the Station Fire Marshall or his designee. The inspector discussed with the Station Fire Chief the actual methods for fighting a fire and found that he and various other brigade members (including the previous Station Fire Chief) would be reluctant to fight a fire in the CSR. This was based solely on the visibility aspect - that the CSR would be smoke filled initially and therefore fire fighters would hesitate to go into the room with Scott Air Packs due to the mobility problems involved in crawling through or under cable trays not knowing where the fire was or being capable of seeing where they were going. The firefighters would have no hesitation whatsoever in entering the room to extinguish a fire when the smoke had been fully or partially evacuated so that visibility was adequate. The licensee currently has several small blowers with elephant trunks capable of smoke evacuation. Also, the station has on order several large blowers with large extension type elephant trunks capable of reaching outside the building (about 200 feet) to be used in the case of a fire. It is said that this arrangement will easily evacuate a smoke filled room the size of the CSR. The inspector also discussed other aspects of fighting a fire in the CSR such as communications, fog stream direction, etc. The inspector found the area acceptable pending the results of the NRR study on acceptability of design and controls.

9. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on March 1, 1978. The inspector summarized the scope and findings of the inspection.