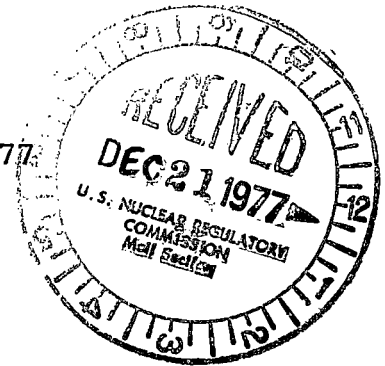




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REGULATORY DOCKET FILE COPY

December 13, 1977



Mr. Donald K. Davis, Acting Chief  
Operating Reactors - Branch 2  
Division of Operating Reactors  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Dresden Station Units 2 and 3  
Planned Modifications Concerning  
Fire Protection  
NRC Docket Nos. 50-237 and 50-249

Dear Mr. Davis:

Attached is a summary list of planned modifications related to fire protection for Dresden Station Units 2 and 3. This information was requested by Mr. L. Derderian of your Staff.

One (1) signed original and 2 copies of this letter are provided for your use.

Please refer any questions you might have on this subject to this office.

Very truly yours,

*M. S. Turbak*

M. S. Turbak  
Nuclear Licensing Administrator  
Boiling Water Reactors

Attachment

*Rec'd in ORB-2, DOR - 12/19/77*

773550067

Dresden Units 2 and 3 Planned  
Modifications

1. Unit 2 Reactor Building  
Ground Floor El. 517'
  - A. Add detectors in vicinity of MCC's
    - 28-1      29-4
    - 28-7      29-7
    - 29-1
  - B. Install a Class A fire door between Units 2 and 3
2. Unit 3 Reactor Building  
Ground Floor El. 517'
  - A. Add detectors in vicinity of MCC's
    - 38-1      39-1
    - 38-4      39-7
    - 38-7
3. Unit 2 Reactor Building  
Mezzanine El. 545'
  - A. Add detectors at the 4 KV switchgear
    - 23-1
    - 24-1
  - B. Extend wall between switchgear 23-1 and 24-1 up to the water shield.
  - C. Install a Class A door between Units 2 and 3
4. Unit 3 Reactor Building  
Mezzanine Floor El. 545'
  - A. Add detectors at the 4 KV switchgear
    - 33-1
    - 34-1
  - B. Extend wall between switchgear 33-1 and 34-1 up to the water shield.

5. Unit 2 Reactor Building  
Main Floor El. 570'

A. Add detectors at 480 V. switchgear

28  
29

B. Add detectors at 250 V DC MCC's

2A  
2B

C. Install a Class A door between Unit 2 and Turbine Building.

6. Unit 3 Reactor Building  
Main Floor El. 570'

A. Add detectors at 480 V switchgear

38  
39

B. Add detectors at 250 V DC MCC's

3A  
3B

C. Install a Class A door between Units 2 and 3 at this elevation.

7. Unit 2 Reactor Building  
El. 589'

A. Add detectors for Standby Liquid Control Area.

B. Install a Class A door between Units 2 and 3.

8. Unit 3 Reactor Building  
El. 589'

A. Add detectors for Standby Liquid Control Area.

9. Control Room

A. Install Class A doors where required.

B. The suspended ceiling will be replaced by materials with smoke developed fuel rating less than 25.

C. The carpeting, when worn out, will be replaced with a UL listed floor covering.

- D. Add detectors to the ceiling area.
- E. Add a ladder in Control Room for fire brigade use.
- F. Add a low capacity booster fire hose reel in area.
- G. Add Halon type fire extinguishers.
- H. Review with fire brigade a method of reaching cable pans in ceiling area for fighting a fire.
- I. Modify cable risers to permit fire fighting through an access opening.
- J. Install fire dampers in ducts between the Auxiliary Electric Equipment Room and the Control Room.
- K. Add six 300 ft<sup>3</sup> air bottles connected to an air manifold for breathing apparatus.

10. Unit 3 DC Distribution Center and Battery  
Charger Room Unit 3 Turbine Room Mezzanine  
Floor El. 538' Southwest Corner.

- A. Add detectors in this room.

11. Auxiliary Electric Equipment Room (AEER) and Computer Room.

- A. Add early warning detection system to alarm and initiate suppression system.
- B. Add an automatic Halon suppression system.
- C. Add a manual fixed back up CO<sub>2</sub> suppression system.
- D. Add fire dampers to the Auxiliary Electric Equipment Room and Computer Room HVAC penetrations.
- E. Coat cables with a flame retardant material. Future cable installed with modifications need not be covered until added cable becomes a significant fire load.
- F. Replace existing access doors and roll up doors with Class A fire doors.
- G. Coat exposed structural steel for fire protection as necessary.
- H. Provide a fire barrier between AEER and the Unit 3 cable tunnel.
- I. Provide curbs at entrances to AEER.
- J. Provide a low capacity booster hose in vicinity of the AEER.
- K. Portable Class A fire extinguishers will be placed near the entrances to the AEER.

12. Unit 2 Battery Room

- A. Add detection system.
- B. Add an air flow monitor to the battery room ventilation system.
- C. Enclose the batteries with a barrier whose rating is based on the appropriate fire loadings.
- D. Install a water stand pipe and hose reel to reach the battery room. El. 549'

13. Unit 3 Battery Room

- A. Add a detection system.
- B. Add an air flow monitor to the battery room ventilation system.

14. Turbine Building  
Clean and Dirty Oil Room

- A. Add rated fire dampers to the HVAC penetrations.
- B. Provide portable ventilation equipment to exhaust smoke from area.

15. Unit 2 Turbine Building El. 495'  
Column/Row C-E/35-40

Extend the existing wet pipe sprinkler system to provide coverage for the control rod drive feed pumps and the containment cooling service water pumps.

16. Unit 3 Turbine Building El. 495'  
Column/Row C-E/48-53

Extend the existing wet pipe sprinkler system to provide coverage of the control rod drive feed pumps and the containment cooling service water pumps.

17. Unit 3 Cable Tunnel

- A. Add early warning detection to alarm and initiate a suppression system.
- B. Provide additional hose on existing hose reels to reach any area in the cable tunnel.
- C. Provide portable ventilation equipment to ventilate the cable tunnel in the event of a fire.
- D. Review and improve as necessary the water suppression system protecting the tunnel. A deluge system is being considered.

18. Turbine Building  
Ground Floor El. 517'

- A. Add sprinklers to Unit 2 Trackway
- B. Add sprinklers to Unit 3 Trackway
- C. Add fixed water suppression in the vicinity of the Units 2 and 3 EHC oil reservoirs.
- D. Add fixed water suppression in the vicinity of the Unit 2 instrument air compressor.
- E. Add detection at 4 KV switchgear

31  
32

- F. Add detection at Unit 2 480 V switchgear

25  
26

- G. Add detection at Unit 3 480 V switchgear

35  
36

- H. Replace door between turbine building and radwaste building with a Class A door.

19. Turbine Building  
Mezzanine Floor El. 538'

- A. Extend the present sprinkler system to provide coverage for the Unit 2 cable concentrations on the southeast wall.
- B. Add a spray nozzle to cover the pump on the Unit 3 hydrogen seal oil unit.
- C. Add detection at Unit 2 4 KV switchgear

21  
22  
23  
24

- D. Add detection at Unit 3 4 KV switchgear

33  
34

- E. Replace door between turbine building and radwaste building with Class A door.

20. Turbine Building  
Unit 2 Diesel Generator Room
  - A. Replace doors with Class A doors.
  - B. Provide adequate protection for louvered doors in the form of a fire rated barrier.
  - C. Provide fire proofing on structural steel.
  - D. Provide a curb at the main door to prevent oil from flowing to the outside where safety related cabling exists.
  - E. Install fire dampers in HVAC penetrations.
  - F. Provide portable ventilation equipment for the DG room.
21. Turbine Building  
Unit 3 Diesel Generator
  - A. Replace doors with Class A doors.
  - B. Provide adequate protection for louvered door in the form of a fire rated barrier.
  - C. Provide fire proofing on structural steel.
  - D. Provide an adequate door curb in the Unit 3 diesel day tank room.
  - E. Install fire dampers in HVAC penetrations.
  - F. Provide portable ventilation equipment for the DG room.
22. Turbine Building  
Unit 2/3 Diesel Generator
  - A. Replace doors with Class A doors.
  - B. Install curbs in front of HPCI room door.
  - C. Install fire dampers in HVAC penetrations.
  - D. Provide fireproofing on structural steel.
  - E. Provide portable ventiation equipment for the DG room.
23. Unit 2 Reactor Building  
Southwest Corner Room El 476'

Replace access doors with Class A fire doors.

24. Unit 3 Reactor Building  
Southeast Corner Room El. 476'

Replace access doors with Class A fire doors.

25. Unit 2 Reactor Building  
HPCI Room

A. Install a water deluge system

B. Replace access doors with Class A fire doors

26. Unit 3 Reactor Building  
HPCI Room

A. Install a water deluge system

B. Replace access doors with Class A fire doors.

27. Crib House

A. Install a water suppression system for the Diesel Driven Fire Pump.

28. Unit 2 Off Gas Recombiner Area

Install rated fire damper in HVAC penetration.

29. NRC P.F. 1 Emergency Breathing Air

Place 75 to 100 charged air bottles in radiographic shack for use of fire brigade in fighting fires as a breathing air supply.

30. NRC P.F. 4 Cable Penetration Fire Barrier Test

A cable penetration fire barrier test schedule will be provided by December 1, 1977.

31. NRC P.F. 6 Fire Barrier Transformers 21 & 22

A. Install a deluge system over the electrical penetrations near transformers 21 and 22.

B. Install a deluge nozzle over the 3 hour fire door.

C. Install a Class A door in doorway near transformers 21 & 22.



- 32. NRC P.F. 9 Dedicated Fire Water System
  - A. Install a leak detection system in fire water system.
  - B. Establish administrative controls to control use of fire water system.
  
- 33. NRC P.F. 12 Motor Generator Sets Turbine Building
  - Install curbs to contain oil from the motor generator coupling area.
  
- 34. NRC P.F. 15 Fire Protection Systems - Divisional Common Areas.
  - A. Place hose stations in the following areas.
    - 1. Near north door of AEER
    - 2. Between the double doors of the Units 2/3 DG room
    - 3. At column row 55 and turbine C/L at El. 538'
    - 4. At 43N El. 510'
  
  - B. Add 50 feet of hose to hose stations located at:
    - 1. Near Unit 2 feedwater pumps
    - 2. Near Unit 3 feedwater pumps
    - 3. Column/row 49E El. 469'
    - 4. Column/row 45N El. 570'
    - 5. Column/row 44L El. 570'
  
  - C. Install fire stops in pans which communicate between divisions at various locations throughout the plant. Where cable separation between divisions appears inadequate such as over some 4 KV switchgear and 480 V MCC's a fire retardant coating will be placed on the cables in that vicinity.
  
- 35. Relocate the push button station for manual initiation of the Hydrogen Seal Oil deluge systems to a safe location in that area.