

SUPPLEMENT TO
THE FIRE PROTECTION
SAFETY EVALUATION REPORT
BY THE
OFFICE OF NUCLEAR REACTOR REGULATION
U.S. OF NUCLEAR REGULATORY COMMISSION
IN THE MATTER OF
COMMONWEALTH EDISON COMPANY
DRESDEN UNITS 2 AND 3
50-237 AND 50-249

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1.0 INTRODUCTION

Our initial Safety Evaluation Report (SER) pertaining to the reevaluation of fire protection at the Dresden Units 2 and 3 facilities was issued by letter to Commonwealth Edison Company, dated March 22, 1978. In Section 3 of the SER, certain items were identified as incomplete and requiring further information from the licensee and evaluation by the staff. The SER also listed several modifications proposed by the licensee to improve fire protection.

The licensee in his letters dated April 14, September 28, and January 24, 1978, March 19, 1979, April 30, 1979, January 24, 1980, and February 29, 1980, submitted additional information in response to staff requests and positions to resolve these incomplete items.

We have reviewed the additional information submitted by the licensee to assure that for the incomplete items the fire protection guidelines identified in Section 2.0 of our SER are satisfied.

Section 2.0 of this report addresses the additional modifications proposed by the licensee. Section 3.0 of this report provides the results of our evaluation of the incomplete items.

2.0 MODIFICATIONS

As a result of the licensee's and the staff's evaluations, the licensee proposed a number of plant modifications to improve the fire protection program at Dresden Station. Details of the modifications are given in the licensee's documentation submitted to the staff. All modifications, with the exception noted below, have been completed to date. A list of the completed modifications is given in Table 2.1. The modification item listed as 3.1.2, Smoke Detection Systems Tests, would require that the licensee perform in situ tests as well as bench tests to demonstrate the adequacy of smoke detection systems. After further consideration, no such in situ tests can be devised to satisfactorily yield the desired information. Therefore, the licensee has been informed by letter dated October 27, 1980, that he should conduct bench tests to verify that the detectors will respond to combustion products that might be present in each area where detectors are located. These bench tests have not yet been completed.

3.0 EVALUATION OF INCOMPLETE ITEMS

The following provides our evaluation of the incomplete items listed in Table 3.1 of our previously issued SER. Numbers in parentheses following each heading refer to the sections of our previously issued SER which address these incomplete items.

TABLE 2.1

*Modifications Completed To Date

- 3.1.1 Fire Detection Systems
- 3.1.3 Fire Water Supply
- 3.1.4 Hose Stations
- 3.1.5 Water Suppression Systems
- 3.1.6 Gas Suppression Systems
- 3.1.7 Portable Extinguishers
- 3.1.8 Fire Doors
- 3.1.9 Supervision of Fire Doors
- 3.1.10 Fire Dampers
- 3.1.11 Protection for Structures
- 3.1.12 Portable Ventilation Equipment
- 3.1.13 Breathing Apparatus
- 3.1.14 Cable Tray Fire Stops
- 3.1.15 Control of Combustibles
- 3.1.16 Water Damage Protection
- 3.1.17 Enclosures of Batteries
- 3.1.18 Fire Barriers
- 3.1.19 Cable Access
- 3.1.20 Fire Retardent Coatings
- 3.1.21 Manual Actuation Station
- 3.1.22 Cable Separation
- 3.1.23 Yard Hydrants

*Numbers refer to the item numbers in our SER

3.1 Administrative Controls (3.2.1)

Our SER noted that the licensee would provide a description of his administrative controls for fire protection and that following the receipt of this information we would evaluate and report the results of our evaluation. The licensee has provided a description of his administrative controls in letters on this subject dated January 24, February 24, March 20 and July 27, 1978, January 31 and April 30, 1979. We have reviewed the above listed correspondence along with the modifications agreed to in Section 2.0 of this report and find that the licensee's administrative controls for fire protection are adequate to meet the objectives of Section 2.2 of our SER, and are acceptable.

3.2 Radiological Consequences of Fires (3.2.2)

Our SER indicated that the licensee would provide an analysis of the radiological consequences of fires in the off-gas filter area and that we would address this topic in our supplement. The licensee in a letter dated May 25, 1978, referenced a previously submitted report on the Dresden 2 and 3 off-gas system dated June 11, 1974, which was submitted under Docket 50-237, Special Report No. 1 of Quad Cities Units 1 and 2, Table 4 and Supplementary Information for Dresden Units 2 and 3 Special Report No. 4A, Modified Off-Gas System, Commonwealth Edison.

Based upon our review of the licensees referenced reports and arguments contained in the letter dated May 25, 1978, we conclude that fire protection for the off-gas system areas of the Dresden Units 2 and 3 are adequate and satisfy the objectives of Section 2.2 of our SER and are, therefore, acceptable.

3.3 Cable Penetration Fire Barrier Tests (3.2.3)

Our SER indicated that the licensee would provide a description of the test program for cable penetration fire stops and subsequent test results. The licensee by letters dated April 14, June 29, September 29 and April 14, 1978, addressed the topic of Cable Penetration Fire Barrier Tests. We have reviewed the licensees submittals, including test procedures, and test results. We conclude that the Dresden 2 and 3 cable penetration barriers satisfy the objectives of Section 2.2 of our SER and are, therefore, acceptable.

3.4 Shutdown Capability (3.2.4)

This item was addressed in our letter to you dated October 1, 1980.

4.0 CONCLUSIONS

The licensee performed a fire hazards analysis and proposed certain modifications to improve the fire protection program as described in our SER of March 22, 1978. Additional modifications were proposed by the licensee to resolve those issues identified in that SER. Those modifications have since been completed with the exception noted in Section 2.0 of this report. Additional modifications may be necessary to meet the requirements of Appendix R to 10 CFR 50 when it is implemented.

In summary, significant steps have been taken to improve safe shutdown capability and maintain the plant in a safe condition during and following potential fire situations. Upon implementation of the licensee's proposed modifications summarized in Section 3 of our SER and Section 2 of this report, we find that the provisions of Section 2 of our SER are satisfied, except that the capability to achieve and maintain safe shutdown in any fire situation has not yet been adequately demonstrated.