

ATTACHMENT A

Marked Up UFSAR Changes

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The control room and associated office areas are constructed of noncombustible materials, including those having a flame spread rating of 25 or less. There is no provision for automatic fire suppression in these areas.

Ample protected exits are provided in the stairwells as well as protection provided by the fire rated walls and doors. No travel distance greater than 100 feet is needed to get into a fire-safe area. Walls in the reactor building, auxiliary building, and radwaste building are of reinforced concrete which exceed the 3-hour fire ratings.

As required by the NFPA, loss of power to the fire protection system is prevented by using the unit's 125-Vdc power supply for a power source.

The fire protection system, including external storage, is not designed to Seismic Category I. The fire protection system is designed so that failure of the system or parts of the system does not result in failure of Seismic Category I systems.

A single failure in the fire protection system does not prevent the system from performing its design function. Two fire pumps are provided with one being sufficient for any plausible demand. If one pump fails to start, the other pump starts and provides water to the fire protection system. The plant is encircled by a 14 inch ring header which feeds the fire protection system inside the station. If pipe rupture occurs, the affected portion of piping can be isolated and water can still be supplied. The fire protection system forms several loops in the plant, permitting portions of the system to be valved-out, thereby assuring continued water supply for the balance of the station.

Automatic fire protection systems are electrically supervised, thereby producing system failure annunciation both in the AEER and in the control room. If a system fails to automatically actuate, it may be engaged manually or adjacent equipment (e.g., fire hoses, CO<sub>2</sub> hose reels, or hand held extinguishers) may be utilized.

#### 9.5.1.4 Inspection and Testing Requirements

Initial construction and preoperational testing of the fire protection system were conducted in accordance with the preoperational test program defined in Chapter 14 of the PSAR.

Periodic inspections and operational checks to demonstrate integrity are routinely performed on all fire protection systems. These tests and inspections are identified in the Technical Specifications.

*Administrative Technical Requirements*

9.5.1.5.2 Construction Phase: Responsibilities for Fire Protection

The CECO supervisor of safety has a fire protection coordinator assigned to him with responsibilities for:

- a. Adequacy of fire fighting equipment including its operation.
- b. Conduct of fire inspections as required by CECO standards, underwriting bureau policies, and insurance company requirements.
- c. Conduct of tests on new fire protection and fire fighting equipment; conducting and witnessing acceptance tests on fire equipment after the initial preoperational test is completed.
- d. Maintaining CECO contacts with local fire departments and fire prevention organizations.
- e. Issuing company policy and procedures for fire prevention and protection; supervising and coordinating the internal fire reporting forms and reports; advising departments on fire prevention rules and standards.
- f. Supervising and assisting in the training of personnel in fire protection, including the use of fire-fighting equipment.

During construction, a fire inspection was performed at LSCS once per month by the CECO fire protection coordinator. Independently, the site was inspected bimonthly by the Nuclear Mutual Limited Consultants. On-call fire inspections were conducted at the request of the station project superintendent or the LSCS station operations superintendent.

During the construction phase, the station project superintendent had onsite responsibility for fire loss prevention.

9.5.1.5.3 Operating Phase: Organization and Responsibilities

The station superintendent has overall onsite responsibility for fire loss prevention. The station fire protection program calls for the following LSCS fire loss prevention organization:

The onsite responsibilities for Fire Protection, including the fire brigade, fire protection related technical staff, fire marshal, and operating, are delineated in Station Administrative Procedures.

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a. The fire marshal is the staff assistant, who has the following duties:

- 1. Insure fire brigade, general employee and contractor fire/housekeeping training.
- 2. Ascertain proper installation and maintenance of fire equipment.
- 3. Purchase fire equipment as suggested by fire inspectors and approved by station superintendent.
- 4. Investigate each fire and make recommendations when necessary.
- 5. Monitor surveillance and testing program for fire loss prevention.
- 6. Submit inspection reports.
- 7. Submit fire reports.
- 8. Make arrangements with local fire departments for possible future service requests.
- 9. Prepare routines for fire drills.

b. Assistant Fire Marshal - Staff Assistant with the following duties:

- 1. Review Fire Protection surveillance from various departments and implement corrective action when necessary.
- 2. Attend and assist Fire Brigade Training.
- 3. Conduct and critique Fire Drills.
- 4. Review and revise Fire Protection Procedures.
- 5. Submit Fire Reports and records.
- 6. Participate and respond to QV, NML, NRC and Corporate.
- 7. Perform fire hazard inspections.
- 8. Respond to fires and alarms to give technical advice.
- 9. Review Fire Protection Out-of-service Log.
- 10. Assume the position of Fire Marshal in his absence.

## LSCS-UFSAR

- c. The shift engineer has the following duties:
1. Assist fire marshal in preparation of Report of Fire.
  2. Make reports to fire marshal on fire protection outages, fires and inspections.
- d. A shift foreman is the fire chief for the Brigade (all shifts), which include the following:
1. a shift foreman (fire chief),
  2. at least four operators (Rad-Chem personnel respond with the fire brigade for first aid and radiation protection purposes).

Composition of the fire brigade is addressed in station administrative procedure LAP-900-14.

ATTACHMENT B

Marked Up License and Technical Specification

- (b) A prelube pump, powered from a reliable direct current power supply, be installed in the system to operate in parallel with the engine-driven lube oil pump, or an alternative acceptable to the NRC shall be installed to preclude dry-starting of the diesel-engine.
- (c) Controls and monitoring instrumentation be removed from the engine and engine skid, except instruments qualified for this location. The non-qualified control and monitoring instruments shall be installed on a free standing floor mounted panel and located on a vibration free floor area. If the floor is not vibration free, the panel shall be equipped with vibration mounts.

(22) Direct Current Power Systems (Section 8.3.1.2, SER)

Prior to startup after the first refueling outage for the 125 and 250-volt direct current systems for Divisions 1 and 2 and the 125-volt Division 3 direct current system, the following additional instrumentation shall be provided in the control room: (1) Battery current (ammeter-charge/ discharge), (2) Battery charger output voltage (voltmeter), (3) Battery charger output current (ammeter), (4) Battery high discharge rate alarm, and (5) Battery charger trouble alarm. In the interim, the licensee shall implement approved procedures to monitor battery current, battery charger output voltage, and battery charger output current at the local panels at least once per eight hour shift.

(23) Reactor Containment Electrical Penetrations (Section 8.4.1, SER)

Prior to startup after the first refueling outage, a redundant fault current device (circuit breakers or fuses) shall be provided on each penetrating circuit that would limit a fault current surge to be less than the surge for which the penetration is qualified except for low energy (milliamps) instrument systems.

(24) Separation of Class 1E and Non-Class 1E Cable Trays (Section 8.4.6.1, SER, SSER #1, SSER #2)

Prior to startup after the first refueling outage, the licensee shall provide adequate separation or barriers between Class 1E and adjacent non-Class 1E cable trays.

(25) Fire Protection Program (Section 9.5, SER, SSER #2, SSER #3)

- (a) The licensee shall maintain in effect and fully implement all provisions of the approved fire protection plan. In addition, the licensee shall maintain the fire protection program set forth in Appendix R to 10 CFR Part 50, except for the following deviations:

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- (i) Hydrostatic hose tests in accordance with NEPA 1962-1979, and
  - (ii) No automatic fire detection systems in areas 2K/3K and 5B4.
- (b) Prior to initial criticality, the licensee shall install a 1-hour rated barrier on all four sides of a partially protected power cable pan and a general sprinkler system, both located in the diesel-generator corridor.
- (c) Prior to startup after the first refueling outage, the licensee shall provide fire protection systems in fire areas 2C/3C, 4C3 and 6E.
- (d) Prior to startup after the first refueling outage, the licensee with respect to fire doors shall implement one of the following:
- (i) Perform an engineering review of the manufacturer's certified doors and door frames by a nationally recognized laboratory to certify that the door and door frames provide the required fire resistance rating, or
  - (ii) Test a replicate "as installed" door assembly by a nationally recognized laboratory to determine the door rating, or
  - (iii) Replace manufacturer's labeled doors and door frames with UL rated items.
- (e) Prior to startup after the first refueling outage, the licensee shall demonstrate the adequacy of its fire protection for record storage.

Am. 14 (26) DELETED  
5/05/83

(27) Industrial Security (Section 13.6, SER, SSER #3)

Am. 65  
4/10/89

CECo shall fully implement and maintain in effect all provisions of the Commission approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain



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The licensee shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for LaSalle County Nuclear Station, and as described in the SERs for NUREG-0519, NUREG-0519 Supplement 2, NUREG-0519 Supplement 3, NUREG-0519 Supplement 5, NUREG-0519 Supplement 7, and NUREG-0519 Supplement 8, subject to the following provision:

The licensee may make changes to the approved Fire Protection Program without prior Commission approval only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

## ADMINISTRATIVE CONTROLS

1. At least one licensed Reactor Operator shall be in the control room when fuel is in the reactor. In addition, while the reactor is in OPERATIONAL CONDITION 1, 2 or 3, at least one licensed Senior Reactor Operator who has been designated by the Shift Supervisor to assume the control room direction responsibility shall be in the Control Room.
2. A radiation protection technician<sup>2</sup> shall be on site when fuel is in the reactor.
3. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
4. ~~A site Fire Brigade of at least 5 members shall be maintained onsite at all times<sup>2</sup>. The Fire Brigade shall not include the Shift Supervisor, the Station Control Room Engineer and the 2 other members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency.~~
5. The Onsite Nuclear Safety Group (ONSG) shall function to examine unit operating characteristics, NRC issuances, industry advisories, Licensee Event Reports and other sources of plant design and operating experience information, including plants of similar design, which may indicate areas for improving unit safety. The ONSG shall be composed of at least three, dedicated, full-time engineers of multi-disciplines located on site and shall be augmented on a part-time basis by personnel from other parts of the Commonwealth Edison Company organization to provide expertise not represented in the group. The ONSG shall be responsible for maintaining surveillance of unit activities to provide independent verification that these activities are performed correctly and that human errors are reduced as much as practical. The ONSG shall make detailed recommendations for revised procedures, equipment modifications, maintenance activities, operations activities or other means of improving unit safety to the Safety Assessment Manager and the Station Manager.
6. The Station Control Room Engineer (SCRE) may serve as the Shift Technical Advisor (STA) during abnormal operating and accident conditions. During these conditions, the SCRE or other on duty STA shall provide technical support to the Shift Supervisor in the areas of thermal hydraulics, reactor engineering and plant analysis with regard to the safe operation of the unit.

The radiation protection technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed two hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

<sup>2</sup> Not responsible for sign-off feature.

(14) Control of Heavy Loads (Section 9.1, SSER 11, SER 15)

Prior to startup after the first refueling, the licensee shall have made commitments acceptable to the NRC regarding the guidelines of Section 5.1.2 through 5.1.6 of NUREG-0612.

(15) Fire Protection Program (Section 9.5, SER, SSER 11, SSER 11, SSER 15, SSER 17, SSER 18)

- (a) The licensee shall maintain in effect all provisions of the approved fire protection program.
- (b) Prior to initial criticality, the licensee shall replace the B diesel fire pump engine and perform a test in accordance with Sections 11-2.3, 11-2.3 and 11-2.5 of NPPA-20/1983.
- (c) Prior to initial criticality, the licensee shall revise the fire protection loop flow test in accordance with Section 11.3 of NPPA-20/1983 and be conducted on 18-month intervals.
- (d) Prior to initial criticality, the licensee shall revise the fire protection loop flow test in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition published by the National Fire Protection Association.
- (e) Prior to startup after the first refueling outage, the licensee shall replace approximately 110 feet of four-inch pipe feeding the sprinkler system in the cable spreading room with six-inch pipe to effectively reduce the friction loss.
- (f) Prior to exceeding five percent power, the licensee shall provide a history of the deviations observed in operation of the diesel fire pumps.
- (g) Prior to exceeding five percent power, the licensee shall provide the results of an analysis of the service water system's capability to perform as a backup water supply for the fire protection. This analysis will include a description of the surveillance procedures for the service water pump system when used as a fire protection water supply, and an evaluation of limitations on the service water system due to the use of these pumps as a fire water supply.

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- (h) Prior to exceeding five percent power, the licensee shall provide a surveillance program for NRC staff approval to ensure operability of the fire dampers. This program will include a periodic operability test of a sample population of accessible dampers.
- (i) Prior to exceeding five percent power, the licensee shall assure, in a manner acceptable to the NRC staff, that a fire in a single fire zone will not result in the inadvertent opening of all three high/low pressure interface valves between the reactor core isolation cooling and residual heat removal systems.
- (j) Prior to startup after the first refueling outage, the licensee shall provide the suppression pool level and temperature monitoring instrumentation at the remote shutdown panel which are electrically isolated from the control room, and assure the instrumentation are operable with the necessary surveillance procedures in place.
- (k) Prior to startup after the first refueling outage, the licensee shall assure, in a manner acceptable to the NRC staff, that a fire in any single zone will not affect the control of the fuel oil transfer pumps for diesel generators "O" and "2A".

Am. 46  
4/10/89

(16) Industrial Security (Section 13.6. SEE SEER 81, SEER 85)

CECO shall fully implement and maintain in effect all provisions of the Commission approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27833) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled "LaSalle County Nuclear Station Security Plan," with revisions submitted through June 1, 1988; "LaSalle County Nuclear Power Station Security Personnel Training and Qualification Plan," with revisions submitted through June 13, 1989; and "LaSalle County Nuclear Power Station Safeguards Contingency Plan," with revisions submitted through February 16, 1984. Change made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(17) Initial Test Program (Section 14. SEE SEER 87)

The licensee shall conduct the initial startup test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended) without making modifications of this program unless such modifications are in accordance with provisions of 10 CFR Section 50.59. In addition, the licensee

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The licensee may make changes to the approved Fire Protection Program without prior Commission approval only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

## ADMINISTRATION CONTROLS

1. At least one licensed Reactor Operator shall be in the control room when fuel is in the reactor. In addition, while the reactor is in OPERATIONAL CONDITION 1, 2 or 3, at least one licensed Senior Reactor Operator who has been designated by the Shift Supervisor to assume the control room direction responsibility shall be in the Control Room.
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