



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 54
License No. NPF-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated June 7, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter 1;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-69 is hereby amended to read as follows:

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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 54 are hereby incorporated into this license. Niagara Mohawk Power Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 15, 1993



ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 54 TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

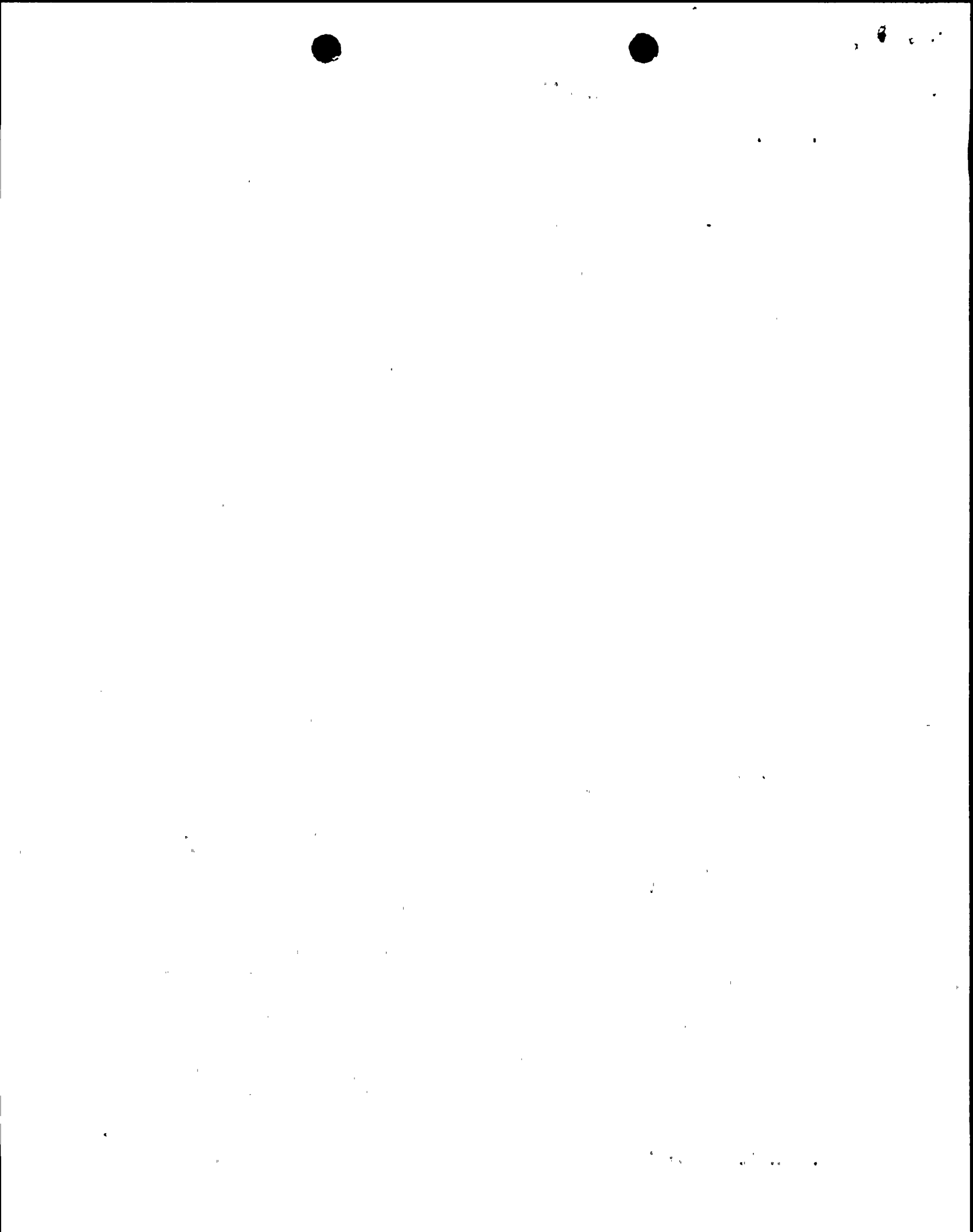
Revise Appendix A as follows:

Remove Pages

3/4 8-1
3/4 8-2
3/4 8-3
B3/4 8-1
B3/4 8-2
B3/4 8-3

Insert Pages

3/4 8-1
3/4 8-2
3/4 8-3
B3/4 8-1
B3/4 8-2
B3/4 8-3
B3/4 8-4 (added page)



3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 AC SOURCES

AC SOURCES-OPERATING

LIMITING CONDITIONS FOR OPERATION

3.8.1.1 As a minimum, the following AC electrical power sources shall be OPERABLE:

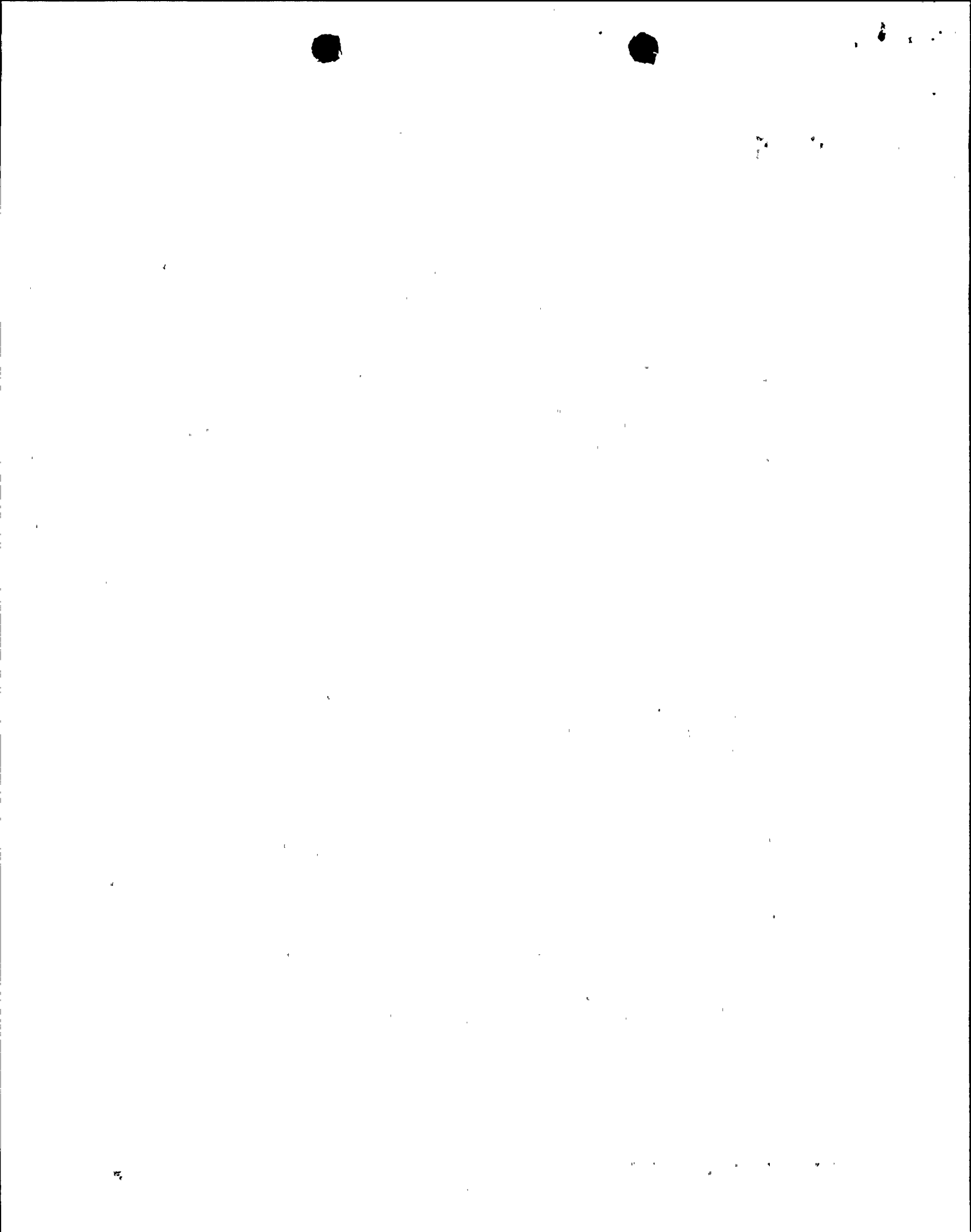
- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Three separate and independent diesel generators, each with:
 1. Separate day fuel tanks containing a minimum of 409 gallons of fuel for EDG*1 (Division I) and EDG*3 (Division II), and 282 gallons for EDG*2 (HPCS-Division III)
 2. A separate fuel storage system containing a minimum of 52,664 gallons of fuel for EDG*1 (Division I) and EDG*3 (Division II), and 36,173 gallons for EDG*2 (HPCS-Division III), and
 3. Two fuel oil transfer pumps.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With one offsite circuit of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirements 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With either diesel generator EDG*1 or EDG*3 inoperable, demonstrate the OPERABILITY of the above required AC offsite sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. If the diesel generator became inoperable from any cause other than preplanned maintenance or testing, within 24 hours, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4*. Restore the inoperable diesel generator to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

* This is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status. The provisions of Specification 3.0.2 are not applicable.



ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

LIMITING CONDITIONS FOR OPERATION

3.8.1.1 (Continued)

ACTION:

- c. With one offsite circuit of the above required AC sources and diesel generator EDG*1 or EDG*3 of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. If a diesel generator became inoperable from any cause other than preplanned maintenance or testing, within 8 hours, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4*. Restore at least one of the inoperable AC sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore at least two offsite circuits and diesel generators EDG*1 and EDG*3 to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- d. With diesel generator EDG*2 of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the offsite AC sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter. If the diesel generator becomes inoperable as a result of any cause other than preplanned maintenance or testing, within 24 hours, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4*. Restore diesel generator EDG*2 to OPERABLE status within 72 hours or declare the HPCS inoperable and take the ACTION required by Specification 3.5.1.

* This is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status. The provisions of Specification 3.0.2 are not applicable.



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ELECTRICAL POWER SYSTEMS

AC SOURCES

AC SOURCES - OPERATING

LIMITING CONDITIONS FOR OPERATION

3.8.1.1 (Continued)

ACTION:

- e. With diesel generator EDG*1 or EDG*3 of the above required AC electrical power sources inoperable, in addition to taking ACTION b or c, as applicable, verify within 2 hours that all required redundant systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE; otherwise, either declare inoperable the redundant systems, subsystems, trains, components and devices served by the inoperable diesel generator and take the ACTION required by the associated specification(s) for both divisional systems, subsystems, trains, components or devices inoperable or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- f. With both of the above required offsite circuits inoperable, restore at least one of the above required offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- g. With diesel generators EDG*1 and EDG*3 of the above required AC electrical power sources inoperable, demonstrate the OPERABILITY of the remaining AC sources by performing Surveillance Requirement 4.8.1.1.1 within 1 hour and at least once every 8 hours thereafter and, within 8 hours, either verify that the cause(s) of diesel generators EDG*1 and EDG*3 being inoperable do not impact the OPERABILITY of diesel generator EDG*2 or perform Surveillance Requirement 4.8.1.1.2.a.4* for diesel generator EDG*2. Restore at least one of the inoperable diesel generators EDG*1 and EDG*3 to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore both diesel generators EDG*1 and EDG*3 to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

* This is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status. The provisions of Specification 3.0.2 are not applicable.



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3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2, & 3/4.8.3 AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the AC and DC power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant AC and DC power sources and distribution systems satisfy the requirements of GDC 17 of Appendix A to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least Division I or II of the onsite AC and DC power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite AC or DC source. Division III supplies the high-pressure core spray (HPCS) system only.

The AC and DC source allowable out-of-service times are based on RG 1.93, "Availability of Electrical Power Sources," December 1974. When diesel generator EDG*1 (Division I) or EDG*3 (Division II) is inoperable, there is an additional ACTION requirement to verify that all required redundant systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator EDG*1 or EDG*3 as a source of emergency power, are also OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite-power event will not result in a complete loss of safety function of critical systems during the period diesel generator EDG*1 or EDG*3 is inoperable. Critical systems are those systems that require emergency power to safely shut down the plant and maintain it in a safe shutdown condition in conjunction with a loss-of-offsite-power. Equipment which "fails safe" upon a loss of power are not included. The following systems/subsystems are required to be verified OPERABLE per this ACTION requirement:

1. primary containment hydrogen and oxygen concentration analyzer
2. airborne particulate/gaseous leak detection systems per Technical Specification 3.4.3.1
3. two low pressure ECCS subsystems
4. one suppression pool cooling subsystem of RHR
5. one standby gas treatment system
6. one primary containment hydrogen recombiner
7. one loop service water with 2 pumps in the loop operable
8. special filter train and associated HVC/HVK subsystem
9. standby liquid control
10. drywell/suppression chamber spray subsystem
11. one shutdown cooling loop

The above systems/subsystems are required to be capable of being powered by the OPERABLE diesel generator EDG*1 or EDG*3. Systems whose ACTION requirements are 72 hours or longer for a complete loss of its safety function are not included on the above



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ELECTRICAL POWER SYSTEMS

BASES

AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

3/4.8.1-3 (Continued)

list. Continued plant operation is limited to 72 hours with diesel generator EDG*1 or EDG*3 inoperable. The term "verify" as used in this context means to administratively check by examining logs or other information to determine if certain components are out of service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

When a diesel generator becomes inoperable due to any cause other than preplanned maintenance or testing, there is a requirement in the ACTION to, for each OPERABLE diesel generator separately, either verify that the cause of the diesel generator being inoperable does not impact the OPERABILITY of the OPERABLE diesel generator or perform Surveillance Requirement 4.8.1.1.2.a.4. The term verify in this context means to determine by visual inspection, functional test or other means that the subsystem will perform its function. For diesel generators made by different manufacturers, this verification may consist of a determination that the cause cannot exist if the comparable subsystem is of a different design.

The OPERABILITY of the minimum specified AC and DC power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of RG 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," December 1979; RG 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977; and RG 1.137, "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, October 1979.

The Surveillance Requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of RG 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978, and IEEE Standard 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values, and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates, and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage, and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015



ELECTRICAL POWER SYSTEMS

BASES

AC SOURCES, DC SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS

3/4.8.1-3 (Continued)

below the manufacturer's full-charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full-charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full-charge specific gravity, ensures the OPERABILITY and capability of the battery.

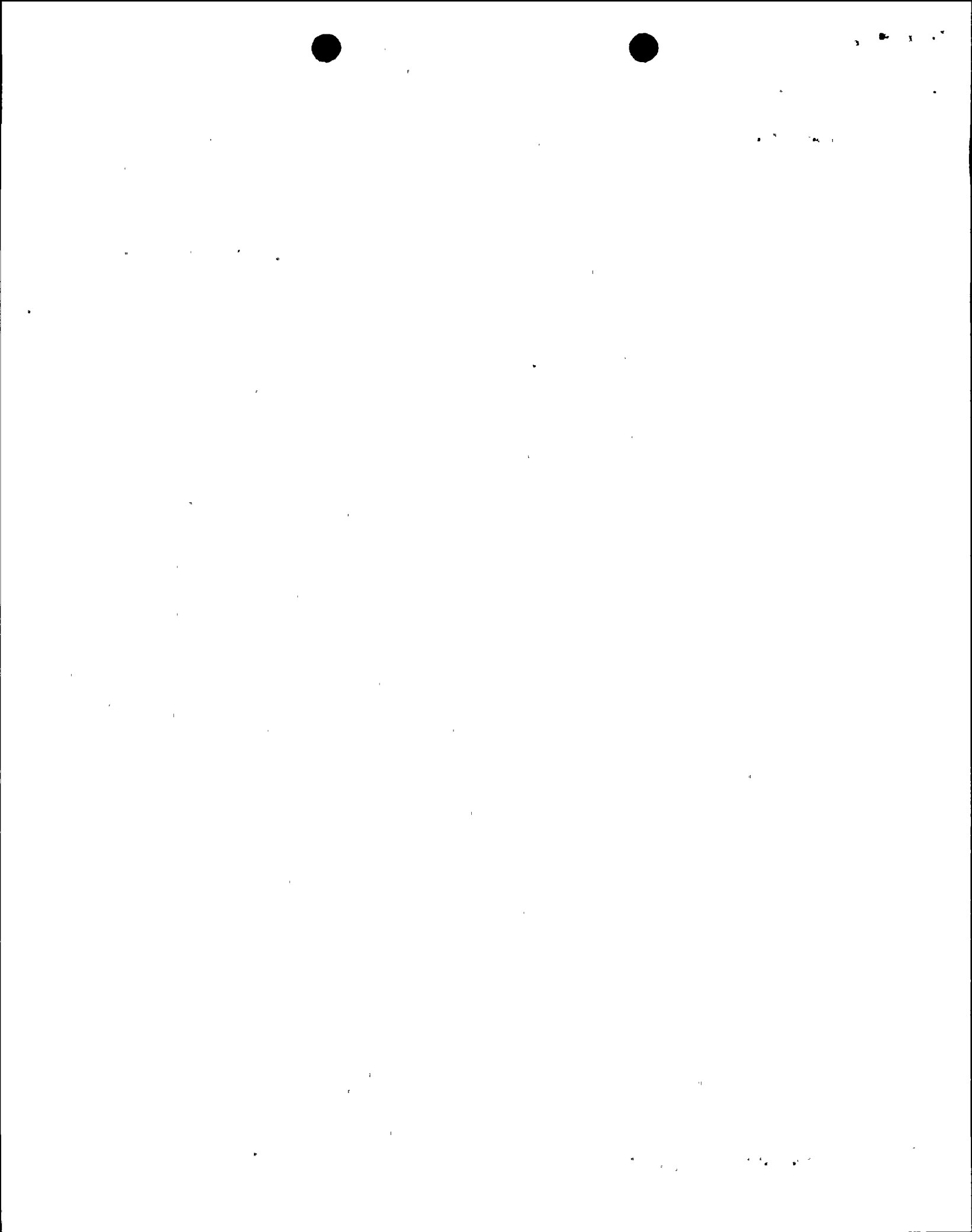
Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7-day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full-charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full-charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance. The list of primary containment AC circuits required to be deenergized is contained in administrative procedure AP-8.8 and revisions will be processed in accordance with Section 6.0, Administrative Controls.

The Surveillance Requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The emergency lighting system overcurrent protective devices ensure that a failure of the non-Class 1E portion of the circuit will not affect the operation of the remaining portions of the Class 1E circuits that are necessary for safe shutdown. The list of these overcurrent protective devices is contained in administrative procedure AP-8.8 and revisions will be processed in accordance with Section 6.0, Administrative Controls.



ELECTRICAL POWER SYSTEMS

BASES

ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

3/4.8.4 (Continued)

The EPAs provide Class 1E isolation capabilities for the RPS power supplies and the scram power supplies. This is required because the power supplies are not Class 1E power supplies.

