

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

MAINE YANKEE ATOMIC POWER COMPANY

DOCKET NO. 50-309

MAINE YANKEE ATOMIC POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 140 License No. DPR-36

- The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Maine Yankee Atomic Power Company (the licensee) dated February 17, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954. as amended (the Act), and the Commission's rules and regulation... set forth in 10 CFR Chapter I;
 - 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 set forth in 10 CFR Chapter I;
 - 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.
- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.B.(6)(b) of Facility Operating L. ense No. DPR-36 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 140, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

 This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Wally R. Butter

Walter R. Butler, Director Project Directorate I-3 Division of Reactor Projects - 1/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: August 3, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 140

FACILITY OPERATING LICENSE NO. DPR-36

DOCKET NO. 50-309

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove	Insert
3.12-1	3.12-1
3.12-2	3.12-2
4.5-1	4.5-1
4.5-2	4.5-2

3.12 STATION SERVICE POWER

Applicability:

Applies to station service electrical power system.

Objectives:

To assure an adequate supply of electrical power during station operation. Specification:

- A. The following equipment must be operable whenever the reactor coolant system temperature and pressure exceed 210°F and 400 psig.
 - 1. One 115 KV incoming line in service.
 - Diesel generator DG-1A operable: 4160v emergency bus 5, 480v emergency bus 7, and d-c distribution cabinet 1 in service,

or

Diesel generator DG-1B operable; 4160v emergency bus 6, 480v emergency bus 8, and d-c distribution cabinet 3 in service.

18,300 gallons of diesel fuel oil in the fuel oil tanks.

Remedial Action: Restore required power supply limiting condition within 4 hours.

- B. The following equipment must be operable whenever the reactor is critical.
 - 1. One 115 KV incoming line in service.
 - Diesel generator DG-1A operable; 4160v emergency bus 5, 480v emergency bus 7, and d-c distribution cabinet 1 in service.
 - Biesel generator DG-1B operable; 4160v emergency bus 6, 480v emergency bus 8, and d-c distribution cabinet 3 in service.
 - 4. 28,800 gallons of diesel fuel oil in the fuel oil tanks.

Remedial Action:

- If the 115 KV incoming line becomes unavailable, the NRC shall be notified within 24 hours of the plans for restoration of service and the line must be restored to the available status within seven days.
- 2. If either diesel generator or its associated emergency buses or d-c distribution cabinet becomes unavailable, within 24 hours determine the operable diesel generator is not inoperable due to common cause failure or within 24 hours test the operable diesel generator in accordance with Specification 4.5.A.1. The unavailable equipment shall be restored to the available status within seven days.
- 3. If the 115 KV incoming line and either diesel generator or its associated emergency buses or dc distribution cabinet are not operable, restore the 115 KV line or the diesel generator (or its associated emergency buses or dc distribution cabinet) within 12 hours.
- 4. If both diesel generators or their associated emergency buses or dc distribution cabinets are not operable, restore one diesel generator (or its associated emergency buses or dc distribution cabinet) to operable status within 2 hours.
- If the diesel fuel oil level in the fuel oil tanks is less than 28,800 gallons but greater than 24,700 gallons, restore the fuel oil level within 48 hours.

Amendment No. 19, 65, 106, 140 3.12-1

C. Under accident conditions, the automatically connected load to either diesel generator shall not exceed the 2000 hour rating of 2850KW.

Basis:

Specification A assures that an emergency power source is available whenever the reactor coolant system is above the specified pressure and temperature limit. It recognizes the decreased consequences of a loss of coolant accident if the reactor is subcritical.

The fuel requirement for Specification A of 18,300 gallons is made up as follows:

- Α. 16,637 gallons is the amount that will be required for the maximum expected engineered safeguards load for the maximum resupply time of 4 days.
- B. 10 percent of the above as a contingency for any non-engineered safeguard requirement during this period.

Specification B assures the availability of power to the engineered safeguards equipment that is necessary when the reactor is critical. If the loss of both 115 KV incoming lines, a diesel generator or its associated emergency buses or d-c distribution cabinet occurs, a period of seven days operation is permitted while the situation is being assessed and full redundancy is being restored. This time period is justified because adequate sources of power remain available for the operation of the engineered safeguards equipment.

The time period of 12 hours for restoring either the 115 KV incoming line or an inoperable diesel generator when both are inoperable takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a design basis accident occurring during this period. It recognizes that there are risks involved with performing a shutdown in a degraded condition that are balanced against the risks of remaining at power to perform repairs.

With DG-1A and DG-1B inoperable, there are no remaining standby AC sources. Thus, with an assumed loss of offsite electrical power, insufficient standby AC sources are available to power the minimum required ESF functions. Since the offsite electrical power system is the only source of AC power for this level of degradation, the risk associated with continued operation for a short time could be less than that associated with an immediate controlled shutdown (the immediate shutdown could cause grid instability, which could result in a total loss of AC power). Since any inadvertent generator trip could also result in a total loss of offsite AC power, however, the time allowed for continued operation is restricted to 2 hours. The intent is to avoid the risk associated with with an immediate controlled shutdown and to minimize the risk associated with this level of degradation.

The fuel requirement for Specification B of 28,800 gallons is made up as follows:

- A. 26,182 gallons is the amount that will be required for the maximum expected engineered safeguards load for a period of seven days:
- 8. 10 percent of the above as a contingency for any non-engineered safeguard requirement during this period.
- Fuel oil tank level is restricted to fuel oil level reductions that maintain at least a 6 day supply. This restriction allows sufficient time for obtaining the requisite replacement volume and performing the fuel analyses required prior to addition of fuel oil to the tank. A period of 48 hours is considered sufficient to complete restoration of the required level prior to declaring DGs inoperable. This period is acceptable based on the remaining capacity (greater than 6 days), the fact that procedures will be initiated to obtain replenishment, and the low probability of an event during this brief period. С.

Amendment No. 65, 106, 140 3.12-2

4.5 EMERGENCY POWER SYSTEM PERIODIC TESTING

Applicability:

Applies to the period testing requirements of the station emergency electrical power systems.

Objective:

To verify the operability of the station emergency electrical power systems.

Specification:

A. Diesel Generators

The following tests shall be performed:

- Manually initiated demonstration of the ability of each diesel generator to start and deliver power at 90 to 100 percent of the continuous rating of 2500 KW with a unity power factor when operated in parallel with other power sources. This test will be conducted monthly whenever Plant Conditions are as defined in Section 3.6.A of these Specifications, and shall be of at least two hours duration, and include operation of the associated fuel oil transfer pump.
- Demonstration of the readiness of the diesel generator to start automatically and restore power to vital equipment by initiating or simulating loss of all normal a-c station service power supplies. This test will be conducted during each refueling interval.
- 3. Manually initiated demonstration of the ability of each diesel generator to start and deliver power to the maximum expected emergency real (KW) and reactive loads (KVAR) loading when operating in parallel with other power sources. This test will be conducted semi-annually, shall be of at least two hours duration and may be substituted for a monthly surveillance test.

B. Station Batteries:

Surveillance of each of the two main station batteries that are associated with the d-c buses feeding the safeguards equipment shall be as follows:

- Each week the specific gravity and voltage of the pilot cells shall be measured and an overall visual inspection of each battery shall be performed.
- Every other month the liquid level, the specific gravity and the voltage of all cells of each of these batteries shall be checked.
- During the initial refueling interval, and every third refueling interval thereafter, these batteries shall be subjected to a rated load discharge test.

[.Basis:

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The test of the diesel generators is conducted to demonstrate that the diesel generators will provide adequate power for operation of vital equipment.

The test of the diesel generators during each refueling interval will functionally test automatic diesel starting, closure of diesel breaker and emergency bus loading and load shedding. The diesel generator will be started by initiating or simulating loss of normal a-c station service power.

The testing frequencies specified will allow any mechanical or electrical deficiency to be identified and corrected before it can result in a failure.

The semi-annual test will demonstrate that the diese! generators continue to be capable of supplying emergency real (KW) and reactive loads (KVAR). Emergency loads are not expected to change significantly from cycle to cycle, and this frequency provides adequate assurance of this capability.

The tests specified for the batteries will demonstrate that they are in a constant state of readiness and are capable of feeding the d-c distribution cabinets which feed power to operate all required loads during normal operation and following the loss of power from the a-c station service system. The frequencies of the tests will allow detecting any tendency towards battery deterioration and subsequent loss of capacity.