



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

NORTHEAST NUCLEAR ENERGY COMPANY

DOCKET NO. 50-245

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 36
License No. DPR-21

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Northeast Nuclear Energy Company (the licensee), dated July 31, 1989 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.

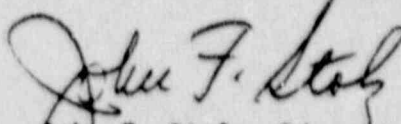
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-21 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 36, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate 1-4
Division of Reactor Projects - 1/11
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 1, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 36

FACILITY OPERATING LICENSE NO. DPR-21

DOCKET NO. 50-245

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

Remove

3/4 7-12

3/4 9-1

3/4 9-3

B3/4 7-5

B3/4 9-1

Insert

3/4 7-12

3/4 9-1

3/4 9-3

B3/4 7-5

B3/4 9-1

LIMITING CONDITION FOR OPERATION

3.7 CONTAINMENT SYSTEMS

- 3.7.B.3. From and after the date that one circuit of the standby gas treatment system is made or found to be inoperable, for any reason, reactor operation and fuel handling is permissible only during the succeeding seven days unless such circuit is sooner made operable, provided that during such seven days all active components of the other standby gas treatment circuit shall be operable.
4. During fuel handling, both circuits of the standby gas treatment system shall be operable, except as stated in paragraph 3.7.B.3. In addition, there shall be operable either (a) two sources of offsite power (two 345kV or one 23kV and one 345kV) and one emergency power source, or (b) one source of offsite power (345kV or 23kV) and two emergency power sources to operate components required in paragraph 3.7.B.3.
 5. If the above cannot be met, procedures shall be initiated immediately to establish the conditions listed in 3.7.C.1.a and b and compliance shall be completed within 24 hours thereafter.
 6. Primary containment shall be purged through the standby gas treatment system at all times when primary containment integrity is required.

SURVEILLANCE REQUIREMENTS

- 4.7.B.3. a. At least once per operating cycle, automatic initiation of each branch of the standby gas treatment system shall be demonstrated.
- b. At least once per operating cycle, manual operability of the bypass valve for filter cooling shall be demonstrated.
- c. When one circuit of the standby gas treatment system becomes inoperable, the other circuit shall be demonstrated to be operable immediately and daily thereafter.

LIMITING CONDITION FOR OPERATION

3.9 AUXILIARY ELECTRICAL SYSTEM

Applicability:

Applies to the auxiliary electrical power system.

Objective:

To assure an adequate supply of electrical power during plant operation.

Specification:

- A. The reactor shall not be made critical unless all of the following conditions are satisfied:
1. One 345 kV line, associated switchgear, and auxiliary startup transformer capable of automatically supplying auxiliary power.
 2. Both emergency power sources are operable.
 3. An additional source of power consisting of one of the following:
 - a. The 23 kV line, associated switch-gear, shutdown transformer to supply power to the emergency 4160 volt buses.
 - b. One 345 kV line fully operational and capable of carrying auxiliary power to the emergency buses.
 4. 4160 volt buses 14A, 14C, 14E, and 14F are energized and the associated 480 volt buses are energized.
 5. All voltage and loss-of-normal power relaying shall be operable as specified by Table 3.9.1.
 6. All neutron monitoring 24 volt and station 125 volt batteries and associated battery chargers are operable.

SURVEILLANCE REQUIREMENT

4.9 AUXILIARY ELECTRICAL SYSTEM

Applicability:

Applies to the periodic testing requirements of the auxiliary electrical system.

Objective:

Verify the operability of the auxiliary electrical system.

LIMITING CONDITION FOR OPERATION

3.9 AUXILIARY ELECTRICAL SYSTEM

- B. When the mode switch is in RUN, the availability of power shall be as specified in 3.9.A, except as specified below:
1. From and after the date that power is available from only one 345 kV line, reactor operation is permissible only during the succeeding seven days unless an additional 345 kV line is sooner placed in service.
 2. From and after the date that incoming power is not available from any 345 kV line, reactor operation shall be permitted provided both emergency power sources are operable. The NRC shall be notified, within 24 hours, of the precautions to be taken during this situation and the plans for restoration of incoming power. The minimum fuel supply for the gas turbine during this situation shall be maintained above 20,000 gallons.
 3. From and after the date that power cannot be made available from the RSST, the plant shall be isolated from the grid within the next 72 hours after which time reactor operation is permissible according to specification 3.9.B.2. During the 72 hour period, both emergency power sources shall be operable. The minimum fuel supply for the gas turbine during this situation shall be maintained above 20,000 gallons. If during the 72 hour period it is determined that the plant cannot be operated isolated from the grid, be in at least HOT STANDBY within the next six (6) hours and in COLD SHUTDOWN within the following thirty (30) hours.
 4. From and after the date that either emergency power source or its associated bus is made or found to be inoperable for any reason, reactor operation is permissible according to Specification 3.5.F/4.5.F unless such emergency Power source and its bus are sooner made operable, provided that during such time two offsite lines (345 or 23 kV) are operable.
 5. From and after the date that one of the two 125 volt or 24 volt battery systems is made or found to be inoperable for any reason reactor operation is permissible only during the succeeding 24 hours, or be in cold shutdown within the next 24 hours unless such battery system is sooner made operable.

SURVEILLANCE REQUIREMENT

4.9 AUXILIARY ELECTRICAL SYSTEM

B. Batteries

1. Station Batteries

3.7 CONTAINMENT SYSTEMS

BASES

containment is normally slightly pressurized during periods of reactor operation assuring no air in-leakage through the primary containment. However, at least once a week, the oxygen concentration will be determined as added assurance.

B. Standby Gas Treatment Systems

The standby gas treatment system is designed to filter and exhaust the reactor building atmosphere to the stack during secondary containment isolation conditions. Both standby gas treatment system fans are designed to automatically start upon containment isolation and to maintain the reactor building pressure to the design negative pressure so that all leakage should be in-leakage. Each of the two fans has 100 percent capacity.

High efficiency particulate absolute (HEPA) filters are installed before and after the charcoal adsorbers to minimize potential release of particulates to the environment and to prevent clogging of the iodine adsorbers. The charcoal should indicate a system leak tightness of less than 1 percent bypass leakage for the charcoal adsorbers and a HEPA efficiency of at least 99 percent removal of DOP particulates. The laboratory carbon sample test results should indicate a radioactive methyl iodide removal efficiency of at least 95 percent for expected accident conditions. If the efficiencies of the HEPA filters and charcoal adsorbers are as specified, the resulting doses will be less than the 10 CFR 100 guidelines for the accidents analyzed. Operation of the fans signify different from the design flow will change the removal efficiency of the HEPA filters and charcoal adsorbers.

Only one of the two standby gas treatment systems is needed to clean up the reactor building atmosphere upon containment isolation. If one system is found to be inoperable, there is no immediate threat to the containment system performance, and reactor operation or refueling operation may continue while repairs are being made. During refueling, two off-site power sources (345 kV or 23 kV) and one emergency power source would provide an adequate and reliable source of power and allow completion of annual diesel or gas turbine preventative maintenance.

C. Secondary Containment

The secondary containment is designed to minimize any ground level release of radioactive materials which might result from a serious accident. The reactor building provides secondary containment during reactor operation, when the drywell is sealed and in service; the reactor building provides primary containment when the reactor is shutdown and the drywell is open, as during refueling. Because the secondary containment is an integral part of the complete containment system, secondary containment is required at all times that primary containment is required.

3.9 AUXILIARY ELECTRICAL SYSTEM

BASES

- A. The objective of the auxiliary electric power specification is to assure that adequate power will be available to operate the emergency safeguards equipment. Adequate power can be provided by any one of the following power sources: one 345 kV line, the 23 kV system, the gas turbine-generator and the diesel generator.

This specification assures that at least two offsite and two onsite power sources will be available before the reactor is started up. In addition to assuring power source operability, all of the associated switch-gear and vital equipment must be operable as specified to assure that the emergency cooling equipment can be operated, if required, from the power sources.

- B. Normally, three 345 kV lines will be available to provide emergency power to the plant when the reactor is operating. However, adequate power is available with only one 345 kV line in service. Therefore, reactor operation is permitted for up to seven days with only one 345 kV line in service to accommodate necessary maintenance, etc.

In the event that all 345 kV lines are out of service, continued reactor operation is permitted provided both onsite emergency power sources are operating with an adequate fuel supply. Two operational power sources provide an adequate assurance of emergency power availability under these circumstances.

In the event that power cannot be made available from the RSST, continued reactor operation is permitted for the succeeding 72 hours provided both onsite emergency power sources are available with an adequate supply of fuel. Seventy-two hours of reactor operation provides adequate time for repairs of a reasonable nature or to isolate from the grid. When isolated from the grid, the plant is not susceptible to offsite induced transients. If neither repair nor isolation is possible, an additional 36 hours is allowed for an orderly shutdown. Two operable emergency power sources provide adequate assurance of emergency power availability under these circumstances.

Normally both the gas turbine-generator and diesel generator are required to be operable to assure adequate emergency power with no offsite power sources. However, due to the redundancy and reliability of offsite power, one of the two emergency onsite power sources may be out of service for limited periods of time providing two offsite power sources are available during these periods.

- C. Either of the two station batteries has enough capability to energize the vital buses and power the other emergency equipment. Due to the high reliability of battery systems, one of the two batteries may be out of service for up to 24 hours. This minimizes the probability of unwarranted shutdowns by providing adequate time for reasonable repairs.