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

NORTHEAST NUCLEAR ENERGY COMPANY

DOCKET NO. 50-245

MILLSTONE NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98
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 August 29, 1996, 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 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;

   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.

9701230250 970114
PDR ADOCK 05000245
P PDR

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. 98 , 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

Phillip F. McKee
Deputy Director for Licensing
Special Projects Office
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 14, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 98

FACILITY OPERATING LICENSE NO. DPR-21

DOCKET NO. 50-245

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
3/4 2-12	3/4 2-12
3/4 7-12	3/4 7-12
3/4 7-13	3/4 7-13
B 3/4 2-5	B 3/4 2-5
B 3/4 7-6	B 3/4 7-6

3.2 PROTECTIVE INSTRUMENTATION

C.2. The minimum number of operable instrument channels specified in Table 3.2.3 for the Rod Block Monitor may be reduced by one for maintenance and/or testing for periods not in excess of 24 hours in any 30-day period.

D. Air Ejector Off-Gas System

1. Except as specified in 3.2.D.2 below, both air ejector off-gas system radiation monitors shall be operable during reactor power operation. The trip settings for the monitors shall be set at a value not to exceed the equivalent of the instantaneous stack release limit specified in Specification 3.8. The time delay setting for closure of the steam jet-air ejector off-gas isolation valve shall not exceed 15 minutes.

2. From and after the date that one of the two air ejector off-gas system radiation monitors is made or found to be inoperable, reactor power operation is permissible only during the succeeding 24 hours, provided the inoperable monitor is tripped, unless such system is sooner made operable.

E. Reactor Building Ventilation Isolation, Steam Tunnel Ventilation Isolation and Standby Gas Treatment System Initiation

1. Except as specified in 3.2.E.2 below, two reactor building ventilation duct radiation monitors, two refueling floor radiation monitors and two steam tunnel ventilation radiation monitors shall be operable whenever secondary containment integrity is required.

2. One of the two reactor building ventilation duct radiation monitors, one of the two refueling floor radiation monitors, and one of the two steam tunnel ventilation radiation monitors may be inoperable for 24 hrs. If it is not restored to service in this time, the reactor building ventilation system and steam tunnel ventilation system shall be isolated and the standby gas treatment operated until repairs are complete or until secondary containment integrity is not required.

3. The radiation monitors shall be set to trip as follows:

   a. Ventilation duct - 11 mr/hr.

   b. Refueling floor - 100 mr/hr.

   c. Steam tunnel ventilation - 50 mr/hr.

LIMITING CONDITION FOR OPERATION

3.7 CONTAINMENT SYSTEMS

3.7.B.3. If one train of the standby gas treatment system is inoperable when secondary containment integrity is required, restore the train to OPERABLE status within seven days. Normal and emergency power must be OPERABLE to the OPERABLE standby gas treatment system train.

4. During a REFUELING OUTAGE, when reactor coolant temperature is less than or equal to 212°F and secondary containment integrity is required, both trains of standby gas treatment system shall be OPERABLE, except as specified in paragraph 3.7.B.3. OPERABLE power sources for two OPERABLE trains of standby gas treatment system shall be 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.

5. If the above cannot be met, immediately suspend the activities listed in 3.7.C.1.a and 3.7.C.1.b and establish, within 24 hours, conditions where secondary containment integrity is not required.

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.

LIMITING CONDITION FOR OPERATION

3.7 CONTAINMENT SYSTEMS

C. Secondary Containment

1. Secondary containment integrity, as defined in Section 1, shall be OPERABLE:

   a. When moving the fuel cask, irradiated fuel or other loads in containment which have the potential for causing a significant release of fission products.

   b. When performing CORE ALTERATIONS or operations with a potential for draining the reactor vessel when the vessel contains irradiated fuel.

   c. When in RUN, STARTUP/HOT STANDBY or HOT SHUTDOWN.

2. If the above cannot be met, immediately suspend the activities listed in 3.7.C.1.a and 3.7.C.1.b and establish, within 24 hours, conditions where secondary containment integrity is not required.

SURVEILLANCE REQUIREMENTS

4.7 CONTAINMENT SYSTEMS

C. Secondary Containment

1. Secondary containment surveillance shall be performed as indicated below:

   a. A secondary containment capability test shall be conducted after isolating the reactor building and placing either standby gas treatment system filter train in operation. Such tests shall demonstrate the capability of the secondary containment to maintain a 1/4 inch of water vacuum with a filter train flow rate of not more than 1100 scfm. Secondary containment capability shall be demonstrated at three or more points within the containment prior to fuel movement and may be demonstrated up to 10 days prior to fuel movement. Secondary containment capability need not be demonstrated more than once per operating cycle unless damage or modifications to the secondary containment have violated the integrity of the pressure retaining boundary of that structure.

BASES

Two air ejector off-gas monitors are provided and when their trip point is reached, cause an isolation of the air ejector off-gas line. Isolation is initiated when both instruments reach their high trip point or one has an upscale trip and the other a downscale trip. There is a 15-minute delay before the air ejector off-gas isolation valve is closed. This delay is accounted for by the 30-minute holdup time of the off-gas before it is released to the stack.

Both instruments are required for trip but the instruments are so designed that any instrument failure gives a downscale trip. The trip settings of the instruments are set so that any instrument failure gives a downscale trip. The trip settings of the instruments are set so that the instantaneous stack release rate limit given in Specification 3.8 is not exceeded.

Three sets of two radiation monitors provide signals to initiate isolation of the reactor building and steam tunnel ventilation and operation of the standby gas treatment system when these systems are aligned for automatic actuation. Additionally, these monitors provide indication of radiological conditions for the areas they monitor and alarm in the event of abnormal conditions. One set of monitors is located adjacent to the reactor building ventilation exhaust duct, one set is located in the vicinity of the fuel pool, and the other set is located adjacent to the steam tunnel ventilation exhaust duct. A high level trip on any one of the six monitors or two downscale trips on any one set of monitors will provide signals to the standby gas treatment system initiation and normal ventilation isolation logics. Trip settings of 100 mr/hr on the fuel pool monitor, 11 mr/hr on the ventilation duct monitor, and 50 mr/hr on the steam tunnel ventilation monitor are based on initiating normal ventilation isolation and standby gas treatment system operation when a gross release of radioactive material exists.

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 trains is needed to clean up the reactor building atmosphere upon containment isolation. If one train 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 RUN, STARTUP/HOT STANDBY and HOT SHUTDOWN, OPERABILITY of the standby gas treatment system is required. Standby gas treatment system OPERABILITY is also required during COLD SHUTDOWN or REFUELING when situations exist where a significant release of fission products can be postulated, such as moving the fuel cask, irradiated fuel or other loads in containment; or when performing CORE ALTERATIONS or operations with a potential for draining the reactor vessel when the vessel contains irradiated fuel. During a REFUELING OUTAGE, when reactor coolant temperature is less than or equal to 212° F and secondary containment integrity is required, 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 diesel or gas turbine preventative maintenance. Likewise, one source of offsite power (345 kV or 23 kV) and two emergency power sources provide an adequate and reliable source of power.

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 integrity is required at all times that primary containment is required. Secondary containment integrity is also required when activities having the potential of significant fission products release, such as movement of the fuel cask, irradiated fuel, or other loads in containment are performed. Administrative controls ensure that loads moved in containment, which may result in significant release of fission products, are evaluated to determine if secondary containment is required.

D. Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the pressure suppression system. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.

BASES

Two air ejector off-gas monitors are provided and when their trip point is reached, cause an isolation of the air ejector off-gas line. Isolation is initiated when both instruments reach their high trip point or one has an upscale trip and the other a downscale trip. There is a 15-minute delay before the air ejector off-gas isolation valve is closed. This delay is accounted for by the 30-minute holdup time of the off-gas before it is released to the stack.

Both instruments are required for trip but the instruments are so designed that any instrument failure gives a downscale trip. The trip settings of the instruments are set so that any instrument failure gives a downscale trip. The trip settings of the instruments are set so that the instantaneous stack release rate limit given in Specification 3.8 is not exceeded.

Three sets of two radiation monitors provide signals to initiate isolation of the reactor building and steam tunnel ventilation and operation of the standby gas treatment system when these systems are aligned for automatic actuation. Additionally, these monitors provide indication of radiological conditions for the areas they monitor and alarm in the event of abnormal conditions. One set of monitors is located adjacent to the reactor building ventilation exhaust duct, one set is located in the vicinity of the fuel pool, and the other set is located adjacent to the steam tunnel ventilation exhaust duct. A high level trip on any one of the six monitors or two downscale trips on any one set of monitors will provide signals to the standby gas treatment system initiation and normal ventilation isolation logics. Trip settings of 100 mr/hr on the fuel pool monitor, 11 mr/hr on the ventilation duct monitor, and 50 mr/hr on the steam tunnel ventilation monitor are based on initiating normal ventilation isolation and standby gas treatment system operation when a gross release of radioactive material exists.

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 trains is needed to clean up the reactor building atmosphere upon containment isolation. If one train 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 RUN, STARTUP/HOT STANDBY and HOT SHUTDOWN, OPERABILITY of the standby gas treatment system is required. Standby gas treatment system OPERABILITY is also required during COLD SHUTDOWN or REFUELING when situations exist where a significant release of fission products can be postulated, such as moving the fuel cask, irradiated fuel or other loads in containment; or when performing CORE ALTERATIONS or operations with a potential for draining the reactor vessel when the vessel contains irradiated fuel. During a REFUELING OUTAGE, when reactor coolant temperature is less than or equal to 212° F and secondary containment integrity is required, 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 diesel or gas turbine preventative maintenance. Likewise, one source of offsite power (345 kV or 23 kV) and two emergency power sources provide an adequate and reliable source of power.

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 integrity is required at all times that primary containment is required. Secondary containment integrity is also required when activities having the potential of significant fission products release, such as movement of the fuel cask, irradiated fuel, or other loads in containment are performed. Administrative controls ensure that loads moved in containment, which may result in significant release of fission products, are evaluated to determine if secondary containment is required.

D. Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the pressure suppression system. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.