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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENTS NOS. 56 AND 45 PROVISIONAL OPERATING LICENSE NO. DPR-21 AND FACILITY OPERATING LICENSE NO. DPR-65

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL

MILLSTONE NUCLEAR POWER STATION, UNITS NOS. 1 AND 2

DOCKETS NOS. 50-245 AND 50-336

1.0 Introduction

By applications dated July 21, October 4, 12 and 18, November 14, 16 and 21, and December 13 and 15, 1977; and January 12 and 24, February 23, and March 20 and 21, 1978, Northeast Nuclear Energy Company (NNECO or the licensee) requested amendments to Provisional Operating License No. DPR-21 and Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Units Nos. 1 and 2.

The proposed changes to the Technical Specifications (TS) for Unit 2 only consist of:

- changing the refueling water storage tank sump recirculation actuation setpoint;
- revising the engineered safety features response times;
- modifying the incore detector operability requirements to be more definite and to remove unnecessary requirements;
- correcting the required number of redundant meteorological monitoring instruments;
- modifying the action requirements for operability of the control room chlorine detectors;
- defining "immediate" in certain ACTION statements and revising other specified time intervals;
- correcting the pressure at which the safety injection tank isolation valves must be operable;
- increasing the amount of TSP required to neutralize the containment sump after a LOCA;

- changing the wording to indicate that specific doorways in the enclosure building have only one door;
- requiring verification of proper operation of the diesel generator under simulated emergency conditions; and
- adding surveillance requirements for ECCS throttled valves.

The proposed changes to the TS for both Units Nos. 1 and 2 consist of:

- changing administrative controls to reflect current organizational structure; and
- providing greater flexibility regarding entry into high radiation areas.

2.0 Discussion and Evaluation

2.1 RWST Level Transmitter

While filling the refueling pool for the last Millstone Unit 2 refueling outage from the Refueling Water Storage Tank (RWST), the licensee noted that even though tank level was reduced well below the Sump Recirculation Actuation Signal (SRAS) setpoint, initiation did not occur. Investigation of the instrumentation malfunction indicated that each channel trip was offset from the SRAS setpoint. The problem was caused by trapped air in the level transmitter piping configuration.

The RWST level transmitters were replaced with delta-P transmitters which have the capability of being completely vented. The licensee has documented that the replacement delta-P transmitters satisfy qualification requirements of the applicable standards as identified in Section 7.1.2 "Identification of Safety Criteria" of the FSAR.

In addition, NNECO has proposed a change to TS Table 3.3-4 for Unit 2 which provides Engineered Safety Feature Actuation System instrumentation trip values.[1] The licensee has proposed to change the level setpoint from 30 inches above the tank bottom to a range of setpoints from 2.5 feet, the current setpoint, to 5.5 feet above the tank bottom. The lower limit is sufficiently above the lowest level which can be detected by the new transmitters. Therefore measurement and system SRAS initiation at this level is assumed. The upper limit ensures that Specification 3.5.4.a, which requires a minimum contained water inventory of 370,000 gallons in the RWST, is satisfied. It has been det[illegible] that the volume of water between the 5.5 foot level and the [illegible] Low Level Alarm (34'-7") is greater than 376,000 gallons, adequately fulfilling the requirements of Specification 3.5.4.a. These proposed changes to the TS provide the added flexibility by allowing adjustments in both the SRAS setpoint and the RWST Low Level Alarm as may be desirable to accommodate changes in RWST inventory.

By inclusion of these proposed changes, there is continued assurance that a minimum contained volume of 370,000 gallons in the RWST will be available, and that a timely switchover to the sump recirculation mode will be accomplished when required. Therefore, we conclude that the proposed change is acceptable.

2.2 Engineered Safety Features Response Times

The licensee has proposed changes to TS Table 3.3-5 for Unit 2 that provide separate response times for the high pressure safety injection (HPSI) and low pressure safety injection (LPSI) systems and revised response times for the containment spray (CS) system and the enclosure building filtration system (EBFS).(2,3)

2.2.1 HPSI and LPSI Response Times

NNECO has proposed to reduce the response time for safety injection flow from the HPSI and LPSI pumps with offsite power available from 30.0 to 5.0 seconds. The acceleration time for both pumps at rated voltage is 4.0 seconds, as shown in Table 6.3-2 of the FSAR. The safety analysis of a postulated steam line break assumes a HPSI and LPSI pump response time of 5.0 seconds. The proposed TS are consistent with that analysis. Although the present requirement is a 30.0 second response time, the HPSI pumps have demonstrated the capability of performing their safety function within a 5.0 second time limit.

They also propose to introduce a maximum response time of 50.0 seconds for LPSI flow when power from the diesel generators is required. This time interval includes the following conservative assumptions:

- A safety injection actuation signal (SIAS) is received one second after the rupture;
- The diesel generators are assumed to start 20.0 seconds after the SIAS;
- A delay of 14.6 seconds is allowed for the load sequencer (including uncertainties) to start the LPSI pump; and
- Eight seconds are allowed to accelerate the pump should only 70% of the rated voltage be available.

This sequence of events indicates that 43.6 seconds after the rupture, flow is available from the LPSI pumps. With offsite power unavailable, the large break LOCA is the limiting incident. In that analysis, however, no credit is taken for LPSI flow until the safety injection tanks are empty which is calculated to be approximately 60 seconds following the actuating signal. Therefore, a 50.0 second response time for the LPSI pumps can be accommodated by the installed equipment. This is reflected in the present accident analysis.

The changes to the response times for HPSI and LPSI are acceptable because they are in the conservative direction with respect to the FSAR and the values used in the previous cycle.

2.2.2 <u>Containment Spray Response Time</u>

NNECO has proposed to change the required response time for the CS from 34.5 to 35.6 seconds when the diesel generators are required. The CS is actuated by a high-high containment pressure of 27 psig which occurs 6 seconds after the rupture for the design basis incident. The diesel generators receive the signal to start one second after the rupture and are five seconds into their starting step when the Containment Spray Actuation Signal (CSAS) is received. This point in time is the τ = 0 stage for the CS as defined by TS definition 1.26. An additional 15 seconds are allowed for the diesel generators to start in the worst case and 14.6 seconds more (including sequencer uncertainties) are allotted before the spray pumps are started. Allowing 6.0 seconds for the pumps to accelerate to full speed with 70% of the rated voltage, 35.6 seconds have elapsed since the initiating CSAS (41.6 seconds after the rupture). This summarizes the basis for the proposed 35.6 second specification. At this time, water is filling the CS headers. Time to fill those headers is not and has not previously been included in the response time and a footnote to that effect is also included in this proposed change for clarity. The reason this interval is not included is that surveillance testing of the headers is not practical. An interval of 14.3 seconds is needed for the pump to supply water to the CS nozzles. Therefore, 55.9 seconds after the break, water has reached the CS nozzles.

The change in containment spray response time is not in the conservative direction. However, the revised response time provides that flow from the spray nozzles is available at 55.9 seconds after the design basis break, whereas the FSAR value for the time that spray flow is available is 56.3 seconds after the DBE. Thus, the original conclusion of the FSAR remains valid and these changes are acceptable, and do not significantly reduce the margin.

2.2.3 Enclosure Building Filtration System Response Time

NNECO has proposed to increase the allowable response time for the Enclosure Building Filtration System (EBFS) to account for the actual time for the diesel generators to start and for the load sequencer to start the EBFS fans following a postulated loss-of-coolant accident and assuming a loss of offsite power.

In its safety evaluation of the design basis loss-of-coolant accident (SER dated May 10, 1974), the staff assumed that one minute was required for the EBFS to reduce the enclosure building pressure to a minimum of -0.25 inches of water (gauge) relative to outside pressure. The licensee has determined since then that the actual time required approaches two minutes due to time required to start the diesel generators, to sequence the EBFS load, and to drawdown the enclosure building air volume to the required negative pressure.

We have reviewed the licensee's analysis of the offsite consequences with the increased response time and the earlier analysis performed for the May 10, 1974 SER. The duration of unfiltered release will increase from one minute to two minutes. The effect of this increased response time, at worst, will be to double that portion of the total dose calculated in the 1974 SER that comes from the unfiltered leakage. This assumes that the previously reported X/Q values are still acceptable. The staff has reviewed more recent meteorological data from the Millstone site and has concluded the X/Q values in the May 10, 1974 SER are appropriately conservative. However, in our reanalysis, the 1974 SER X/Q values were used. Based on this, an increase in the EBFS response time from 35 seconds to 50 seconds and in the total time required to reach -0.25 inch water gauge in the enclosure building from one minute to 110 seconds would increase the two-hour exclusion area boundary dose as shown in the table below. The 10 CFR Part 100 limits and the original SER values are included for comparison.

LOSS-OF-COOLANT ACCIDENT DOSE (REMS)

Limit and Calculation Results	Site Boundary		Low Population Zone	
	Thyroid	Whole Body	Thyroid	Whole Body
10 CFR Part 100 Limit	300	25	300	25
May 10, 1974 SER	172	6.1	90	2.6
NNECO Analysis of 2/23/78	116	1.2	66	1.4
NRC Revised Evaluation	210	7	94	3

We conclude that this change to the EBFS response time TS (Table 3.5-5) remains acceptable and does not significantly decrease the margin to the 10 CFR Part 100 limits. In this connection it should be noted that:

- the X/Q values used in the NRC evaluation are known to be appropriately conservative;
- the NRC calculated dose values are well below the acceptable limits of 10 CFR Part 100; and
- the calculated values for LOCA consequences for Millstone Unit 2 remain less than the consequences computed for Millstone Unit 1. The Millstone Unit 1 computations remain controlling with respect to site boundary dose effects.

The emergency plan designed to protect the general public in the event of an accident remains unaffected by this modification.

2.2.4 Diesel Generator Response Time

In the above evaluation of emergency safeguard response times, a diesel generator response time of 20 seconds was used by the licensee. The Millstone Unit No. 2 Final Safety Analyses Report (FSAR) states that the diesel generators are capable of starting within a nominal 12 seconds. No TS limit is presently specified for this parameter. In response to a NRC request, NNECO has proposed a TS limit on diesel generator response time of 20 seconds (the value used in their analysis for the emergency safeguards system)(18). The licensee provided an additional response that documented:

- their intent to investigate and take appropriate corrective action if the diesel generator start time is in excess of the nominal 12 seconds used in the FSAR;
- their analysis of the response of all equipment powered by the diesel generators under loss of offsite power conditions, both permanently connected loads and loads added at each sequence step, and the conclusion that a 20 second start time is substantiated; and
- the diesel generator start times for both units since early 1976. A brief description of deficiencies, where available, was provided(19).

We conclude that a diesel generator response time of 20 seconds is acceptable to provide emergency safeguards electrical loads, under loss of offsite power conditions, as evaluated in Sections 2.2.1, 2.2.2 and 2.2.3 of this SE. This response time will be specified in TS Section 4.8.1.1.2. We further conclude that the automatic sequence time delay relays should be surveillance tested on a 18 month schedule. NNECO has agreed to this TS additions to Section 4.8.1.1.2.

2.3 Incore Detectors

NNECO proposed a change to TS Section 3.3.3.2 for Unit 2 which addresses the operability of the incore detector system.[4] The Incore Detector System is required for four types of monitoring in the CE reactors:

1. Recalibrations of the excore neutron flux detection system;

2. Monitoring the azimuthal power tilt;

3. Calibration of the power level neutron flux channels; and

4. Monitoring the linear heat rate.

The present TS specify one set of operability requirements to encompass all four functions. This set consists of two requirements:

- At least 75% of detector locations shall be OPERABLE.

- There shall be at least two sets of fourfold 90° symmetric OPERABLE detector locations.

An OPERABLE location was defined as a location in which at least three of the possible four segments are OPERABLE. Therefore, considerable usable data was discarded by this definition of OPERABLE.

The proposed change would delete the requirements that would prevent reactor start-up with an inoperable system or cause reactor shutdown within 30 hours following inoperability of the system. We have recently issued a new standard TS on this subject to Baltimore Gas and Electric Company (BG&E) for Calvert Cliffs Units Nos. 1 and 2. NNECO has modified their initial proposal to accept this new standardized TS for Millstone Unit No. 2.

In the proposed TS for Incore Detectors, the requirements for each function the incore system performs are treated separately, and thus unnecessary requirements can be relaxed. Conversely, for each function being performed by the incore system, the TS requirements are based on the actual mathematical model used to satisfy the requirement. The result is a more logical and consistent TS.

We have specified an absolute minimum requirement that at least one operable detector segment in each core quadrant on each of the four axial elevations be operable. The remainder of the operability requirements are as presented in the following discussions on each function of the Incore Detector System.

2.3.1 Monitoring Azimuthal Power Tilt

Since tilt values are computed on each detector level, the tilt computation on a given level does not require the operability of any detectors in that string except those on that level. The OPERABILITY requirement based on locations will be replaced by the requirement that sufficient detector segments be OPERABLE to compute at least two tilt values on each of the four detector segment levels. This change in Specification 3.3.3.2 greatly increases the number of tilt values that can be computed and is acceptable.

2.3.2 Recalibration of the Excore Neutron Flux Detector System

Again the proposed TS places requirements on OPERABLE segments rather than OPERABLE locations. The proposed TS requires that at least 75% of the detector segments remain OPERABLE. In addition it requires a minimum of nine OPERABLE incore detector segments on each detector level and a minimum of two OPERABLE detector segments in the inner 109 fuel assemblies and two OPERABLE segments in the outer 108 fuel assemblies. These new requirements guarantee that adequate instrumentation in each region of the core is available to monitor core performance.

The change from requiring 75% of detector locations be OPERABLE to requiring 75% of detector segments be OPERABLE is conservative. The criterion of requiring that 75% of detector segments be operable was demonstrated by a simulation study by BG&E. The simulation study consisted of first measuring the ASI with a full compliment of detector segements and comparing this with measurements of ASI with up to 25% of the detector segments failed. The selection of failed detectors was constrained so that there remained at least four OPERABLE segments on each detector level so that large regions of the core could not become uninstrumented. This restraint to four OPERABLE segments per level is conservative compared with the proposed TS requirements of nine OPERABLE segments per detector level and at least two OPERABLE segments in the inner 109 fuel assemblies and two OPERABLE segments in the outer 108 fuel assemblies per detector level. Thus, the simulation study represents a very conservative approach. The results of the study showed that with up to 25% failed detectors there is a negligible loss of resolution in the measurement of ASI. Therefore, we find the proposed TS acceptable.

2.3.3 Monitoring Peaking Factors and Linear Heat Rates

The present TS is based on having 75% of detector locations OPERABLE. The uncertainties applied to the setpoints are based on the concept of OPERABLE locations, rather than OPERABLE segments. Furthermore, the core follow program, which assures that the incore detector measurement errors are within the 3.95% bound assumed in the INCA Topical Report (CENPD 145), is also based on operable locations. Thus, this part of the proposed

TS continues to require 75% of the detector locations to be operable. The same two requirements of the previous section are also required to guarantee that no large region of the core becomes uninstrumented for this monitoring. These proposed TS requirements give better assurance than the current TS that improved monitoring is used. On this basis, we conclude that the proposed TS are acceptable.

2.4 Meteorological Monitoring Instrumentation

NNECO has proposed a change to TS Section 3.3.3.4 for Unit 2 which describes the meteorological monitoring equipment.(5) The existing TS requires three instruments, each, for indication of wind speed, wind direction and air temperature-delta T. For each indication, two of the three instruments are required to be operable. The proposed change would reduce the number of instruments, from three to two each, for the above described indications and require both to be operable. NNECO has stated in the application that only two instruments, rather than three, per indication were installed for Millstone Unit No. 2.

Regulatory Guide 1.23, entitled, "Onsite Meteorological Programs," states in Section C.5 that "Meteorological instruments should be inspected and serviced at a frequency which will assure at least a 90% data recovery and which will minimize extended periods of instrument outage. The use of redundant sensors and/or recorders may be another acceptable means of achieving the 90% data recovery goal." Our review of the October 12, 1977 application indicates that two instruments (both of which must be operable), each, for windspeed, wind direction and air temperature-delta T, meet the "redundancy" requirement of Regulatory Guide 1.23 in that at least a 90% data recovery rate is expected. Accordingly, the proposed change to TS 3.3.3.4 is acceptable.

2.5 Chlorine Detection System

NNECO has proposed a change in the Chlorine Detection System Technical Specification action statement for Unit 2 to remove the requirement for plant shutdown in the event that both control room chlorine detectors are declared inoperable.(6) They point out that inoperability of this system should require that the control room emergency ventilation system be maintained in the recirculation mode. In this mode, all outside air dampers are closed and outside air is not introduced into the system. NNECO concludes that this is the most conservative action that can be taken and that placing the reactor in the cold shutdown condition does not increase the level of operator protection. The staff agrees with this analysis.

In preparing a new Specification 3.3.3.6, we have expanded the action statements to cover single and both chlorine detection system failures. NNECO has agreed with this modification of their submittal.

2.6 Definition of "Immediate" in Certain Action Statements

NNECO has proposed to supply definite time restrictions for the required performance in place of the undefined "immediate" action and revise other specified time intervals to more reasonably reflect time requirements for certain plant actions for Unit 2.(7) The TS to be modified require appropriate response times when ACTION statements are exceeded to restore the condition to normal or take further action to remedy plant condition.

We find that the proposed changes provide appropriately defined times for important plant action, are in accordance with other Standard TS for CE designed facilities and, therefore, are acceptable.

2.7 Safety Injection Isolation Valves

The safety injection tanks at Millstone Unit No. 2 are provided with isolation valves to prevent discharge of the tanks when the reactor coolant system (RCS) pressure is intentionally lowered below the discharge pressure of the tanks.(8) These valves are designed to open automatically above, a predesignated pressure of about 300 psia or in the event of a safety injection signal, to prevent the safety injection tanks from being defeated. TS Section 4.5.1.d requires that the safety injection tank isolation valves be demonstrated to open automatically, when the RCS pressure exceeds 300 psia on a safety injection signal, once per 18 months. NNECO has proposed a change that would require demonstration of safety injection tank isolation valve operability before pressure exceeds 1750 psia instead of the existing 300 psia requirement.

TS 3.5.1 requires the safety injection tanks to be operable above 1750 psia. The demonstration of safety injection tank isolation valve operability below 1750 psia does not materially add to reactor safety in that the safety injection tanks are not required to be operable in this range. Demonstrating operability of the isolation valves at a pressure in excess of

300 psia and below 1750 psia is appropriate since it is consistent with the operability requirements on the safety injection tank. Accordingly, the proposed change to Technical Specification 4.5.1.d is acceptable.

2.8 Minimum Requirements for Trisodium Phosphate Dodecahydrate (TSP)

In response to our Bulletin of November 4, 1977 in which we questioned the minimum requirements for TSP to neutralize the containment sump following a LOCA, NNECO proposed to revise Unit 2 TS Surveillance Requirement 4.5.2.C.3.(9)

TSP is added to the containment sump by dissolutions from baskets on the containment floor. The function of TSP in the Millstone Unit No. 2 facility is to raise the pH and prevent chloride stress corrosion of components inside containment, including the containment liner. Standard Review Plan Section 6.1.3 states that available information indicates optimum pH control consists of stabilizing pH between 7 and 8 within four hours after a postulated LOCA. The FSAR concludes that 65 cubic feet is a quantity sufficient to raise the sump water pH to a value greater than 7.0

NNECO has determined that the original calculations made to determine the amount of TSP required assumed minimum water volumes and boron concentrations. In their reanalysis, they assumed maximum water volumes and boron concentrations of 2400 ppm for the Refueling Water Storage Tank, Safety Injection Tanks, and the Reactor Coolant System (RCS) and 21,000 ppm for the Boric Acid tanks. This results in increasing the minimum TSP requirement from 65 cubic feet to slightly less than 110 cubic feet. The proposed TS (Section 4.5.2.C.3) would require 110 cubic feet. If the boron concentrations in the various tanks are assumed at TS minimum values and the RCS is assumed at 0 ppm boron, NNECO has calculated the resultant pH of the containment sump after a LOCA to be about 7.4.

We conclude that this proposed correction to the TS increasing the TSP requirement to 110 cubic feet meets our requirements and is, therefore, acceptable.

2.9 Enclosure Building Doors

Section 4.6.5.2 of the present TS for Unit 2 requires that, when Enclosure Building (EB) Integrity is required, at least one door shall be closed in each access opening when the opening is being used for normal transit entry and exit. NNECO proposed to modify the TS by removing the requirement to have one door closed since only one door exists at seven EB access openings.(10)

The FSAR describes the EB as a limited leakage steel frame structure completely surrounding the containment above grade. It is designed and constructed to ensure that an acceptable upper limit of leakage of radioactive materials to the environment would not be exceeded in the unlikely event of a LOCA. Amendment No. 39 to the FSAR presents the detailed design of the EB including the location of the seven single door access openings. In our May 10, 1974 SE, we concluded that the reactor containment, including the EB, was designed in accordance with our requirements given in GDC 16 and 50 and Appendix A to 10 CFR Part 50. Therefore, we conclude that removing the requirement to have one EB door closed during normal transit entry and exit is an acceptable correction to TS Section 4.6.5.2.

2.10 AC Emergency Power Supply

By letter dated June 2, 1977, we informed NNECO of our concern regarding the integrity of the Millstone Unit No. 2 emergency AC power capability in the event of a degraded grid voltage occurrence. In our letter, we requested NNECO to submit (1) a demonstration of compliance with Staff Positions regarding plant electrical performance under degraded grid voltage conditions, and (2) a submittal of proposed Technical Specifications to include an improved test of emergency AC power capability. NNECO chose to demonstrate compliance with the Staff Positions by presenting their plan in a submittal dated July 21, 1977.(12) The necessary TS were submitted by application dated October 18, 1977.(11)

The proposed TS provides for an additional test of emergency AC power capability. The test, described in proposed TS Section 4.8.1.1.2.b.3.d, conforms to guidance contained in our letter of June 2, 1977 in that it tests whether the Millstone Unit No. 2 emergency AC power capability will retain its integrity under postulated degraded grid voltage conditions. The proposed TS change is, therefore, acceptable.

2.11 ECCS Throttle Valves

HPSI and LPSI designs of many Pressurized Water Reactors (PWR) utilize a common low pressure and a common high pressure header to feed the several cold (and in some cases hot) leg injection points. Maintenance of proper flow resistance and pressure drop in the piping system to each injection point is necessary to: (1) prevent total pump flow from exceeding runout conditions when the system is in its minimum resistance configuration; (2) provide a proper flow split between injection points in accordance with the assumptions used in the ECCS-LOCA analyses, and (3) provide an acceptable level of total ECCS flow to all injection points equal to or above that assumed in the ECCS-LOCA analyses. On many plants, there are motor operated valve(s) in the lines to each injection point that have stops which are set during pre-operational flow testing of the plant to insure that these flow requirements are satisfied. On other plants, electrical or mechanical stops on the Safety Injection System's isolation valve(s) are used for this purpose. Millstone 2 utilizes the former to satisfy these ECCS flow requirements.

While pre-operational HPSI/LPSI flow testing is utilized to assure that the valves used to throttle flow have been properly set, we have concluded that periodic surveillance requirements are needed to assure that these settings are maintained throughout the life of the plant. Consequently, we requested all PWR licensees to propose changes to their TS, as appropriate, to incorporate periodic surveillance requirements for these valves. Sample surveillance requirements, developed by the NRC staff, were provided to licensees for guidance in developing proposed changes.

The sample requirements include periodic verification of throttle valve position stop settings, and verification of proper ECCS flow rates whenever system modifications are made that could alter flow characteristics. The request for proposed TS changes was sent to NNECO on June 30, 1977.

NNECO responded to our request with respect to Millstone Unit No. 2 by proposing changes to the TS Section that are in essential agreement with the staff's requirements.(13) Based on our review, we have concluded that the licensee's proposed increased surveillance requirements would provide sufficient additional assurance that proper valve settings for ECCS flows and flow distributions will be maintained throughout the plant life; and thus, the proposed changes are acceptable.

2.12 Administrative Controls

NNECO proposed to revise TS Section 6 for both units to reflect current organizational structure.(14) We have been informed of several minor changes since the original submittal, which have been incorporated. Since these are purely administrative changes, they involve no safety considerations and are, therefore, acceptable.

2.13 High Radiation Area

NNECO proposed to revise TS Section 6.13.1 for both units to provide greater flexibility regarding entry into high radiation areas.(15) The present TS requires that any individual or group of individuals permitted to enter high radiation areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area. The proposed TS would also authorize entry under continuous Health Physics coverage or with use of an integrating dosemeter with preset alarm capabilities. We proposed that NNECO accept the more recent version of the Standard TS that provides the flexibility that NNECO proposed, but contains more precise requirements that we find necessary. NNECO has agreed to this new version of the STS. We conclude that this change, provides radiation protection for employees equivalent to the present TS, is consistant with that authorized for other STS facilities and is, therefore, acceptable.

3.0 Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

4.0 Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 8, 1978

REFERENCES

1. NNECO application to revise the containment sump recirculation actuation signal (SRAS) setpoint, D. Switzer to G. Lear, January 24, 1978.

2. NNECO application for revised engineered safety features response times, D. Switzer to G. Lear, December 13, 1978.

3. NNECO application to modify the enclosure building filtration system response time, D. Switzer to R. Reid, February 23,1978.

4. NNECO application on incore detector operability requirements, D. Switzer to G. Lear, November 16, 1977.

5. NNECO application for meteorological instrumentation system change, D. Switzer to G. Lear, October 12, 1977.

6. NNECO application to revise the chlorine detection system action statement, D. Switzer to G. Lear, October 4, 1977.

7. NNECO application to supply definite time restrictions replacing "immediate" actions, D. Switzer to G. Lear, November 14, 1977.

8. NNECO application on safety injection isolation valves, D. Switzer to G. Lear, October 18, 1977.

9. NNECO application on minimum required amount of TSP, D. Switzer to G. Lear, December 15, 1977.

10. NNECO application on enclosure building design, D. Switzer to G. Lear, November 21, 1977.

11. NNECO application on AC emergency power supply, D. Switzer to G. Lear, October 18, 1977.

12. NNECO submittal demonstrating compliance with Staff Positions on AC emergency power supply, D. Switzer to G. Lear, July 21, 1977.

13. NNECO application on ECCS throttle valves surveillance requirements, D. Switzer to G. Lear, January 12, 1978.

14. NNECO application to change administrative controls to reflect current plant organizational structure, D. Switzer to D. Ziemann and R. Reid, March 21, 1978.

15. NNECO application on entry into high radiation areas, D. Switzer to D. Ziemann and R. Reid, March 20, 1978.

16. NNECO application on containment leak rate test intervals, D. Switzer to R. Reid, March 14, 1978.

17. NNECO withdrawal of application on containment leak rate test intervals, W. Counsil to R. Reid, July 31, 1978.

18. NNECO application to incorporate diesel generator response time in TS, W. Counsil to R. Reid, August 11, 1978.

19. NNECO additional information on diesel generator response time, W. Counsil to R. Reid, October 11, 1978.