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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 123

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

By letter dated July 17, 1995, the Northeast Nuclear Energy Company (the licensee), submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 3 Technical Specifications (TS). The requested changes would revise the frequency of those surveillance requirements pertaining to the filter and ventilation systems that now require the surveillances to be performed "at least once per 18 months" to extend the interval for performance of these surveillances to "at least once each refueling interval." Guidance on the proposed TS changes was provided by NRC Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle" dated April 2, 1991.

2.0 EVALUATION

Millstone Unit 3 shut down for the fifth refueling outage on April 14, 1995, and started in Cycle 6 on June 7, 1995. During the outage, the core was reloaded with fuel designed for a nominal 24 months of operation. To permit operation with this longer fuel cycle, the licensee has submitted 8 applications to revise the TS, including the submittal which is discussed herein. This application pertains to the filtration and ventilation systems.

2.1 Supplementary Leak Collection and Release System

2.1.1 System Design

Millstone Unit 3 has a subatmospheric-type containment. During normal operation the containment structure is maintained at a subatmospheric pressure (10.6 to 14 psia) to minimize containment leakage during normal plant operation.

The secondary containment is comprised of the containment enclosure building, engineered safety features building (partial), auxiliary building, main steam building (partial), hydrogen recombiner building (partial) and the associated supplementary leak collection and release system (SLCRS) provided to mitigate the radiological consequences of postulated accidents of the dual containment plant concept for Millstone Unit 3.

The secondary containment is kept under a negative pressure relative to atmospheric pressure. The negative pressure is maintained per TS at greater than or equal to 0.4 inches water gauge after a postulated design basis accident (DBA). The negative pressure is maintained with the SLCRS operating together with the charging pump, component cooling water pump and heat exchanger area, and auxiliary building filtration portions of the auxiliary building ventilation system (ABVS). The system fans and filtration units are located in the auxiliary building. The SLCRS operating together with the charging pump, reactor plant component cooling water pump and heat exchanger area ventilation system and auxiliary building filtration portions of the ABVS also maintains all contiguous buildings (main steam valve building, engineered safety features building (partially), hydrogen recombiner building (partially), and auxiliary building) under a negative pressure following a DBA by exhausting air from these areas, filtering and removing particulate and gaseous iodine from the air before discharging to the atmosphere via the Millstone Unit 1 stack 4 and Turbine Building Stack. The system is designed as Safety Class 3.

The SLCRS consists of two exhaust fans, each supplied from a separate emergency bus, two filter banks and associated ductwork and dampers. Each filter bank includes a moisture separator, electric heater, prefilter, upstream high-efficiency particulate air (HEPA) filter, a charcoal adsorber, and downstream HEPA filter.

The SLCRS collects a portion of the primary containment leakage from the buildings contiguous to the containment, which house the various containment penetrations and the engineered safety features equipment circulating radioactive fluids, filters it, and releases it to atmosphere through the Millstone Unit 1 stack. All leakages from the primary containment following a DBA flow into these areas. A portion of the auxiliary building atmosphere is exhausted via the auxiliary building ventilation system.

The SLCRS is normally not in operation. The SLCRS system and the auxiliary building portion of the ABVS start automatically on receipt of a safety injection signal (SIS). The system can also be put into operation remote-manually. The system is considered operational when the SLCRS fan gets up to full speed. The capacity of each redundant SLCRS filter train is 8,500 cfm with free inlet conditions; i.e., with doors on the SLCRS boundaries open. This capacity exceeds the design leakage rate across the boundaries of the building with a differential pressure across the boundaries. The excess margin in fan-filter train capacity, which is augmented by ABVS, is required in order to draw down the SLCRS area to a negative pressure within 120 seconds after the accident.

2.1.2 Proposed TS Changes

Surveillance Requirements 4.6.6.1.b and 4.6.6.1.d currently require that SLCRS shall be demonstrated OPERABLE:

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978,* and the system flow rate is 7600 cfm to 9800 cfm;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978,* meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978,* for a methyl iodide penetration of less than 0.175%; and

3) Verifying a system flow rate of 7600 cfm to 9800 cfm during system operation when tested in accordance with ANSI N510-1980.

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.25 inches Water Gauge while operating the system at a flow rate of 7600 cfm to 9800 cfm,

2) Verifying that the system starts on a Safety Injection test signal,

3) Verifying that each system produces a negative pressure of greater than or equal to 0.4 inch Water Gauge in the Auxiliary Building at 24'6" elevation within 120 seconds after a start signal, and

4) Verifying that the heaters dissipate 50 ±5 kW when tested in accordance with ANSI N510-1980.

The licensee proposes to change the surveillance interval in both of the above from once per 18 months to once each refueling interval. The licensee also proposes to change the words "18-month" to "REFUELING INTERVAL" in the Bases for the SLCRS (page B 3/4 6-6) in the discussion of those surveillances that have to be performed under conditions that apply during a plant outage.

2.1.3 Justification for the TS Changes

In accordance with the guidance in GL 91-04, the licensee evaluated equipment performance over the last four operating cycles to determine the impact of extending the frequency of the surveillances. This evaluation included a review of surveillance results, preventative maintenance records, and the frequency and type of corrective maintenance.

For the surveillances conducted to satisfy Surveillance Requirements 4.6.6.1.b and d, the SLCRS have passed each of the surveillances except two. On July 23, 1990, the 'B' train of the SLCRS failed two surveillances. One of these failures was due to running the surveillance with 3HVR*DMPR13B locked and wired open, while the other failure was attributed to having the main steam valve building dampers 3HVV*MOD51A, B, C, and D open during test. A follow-up surveillance test on the same day was performed with acceptable results. Recent successful SLCRS negative pressure surveillances were performed on train 'B' after completing boundary work on March 6, 1995, and on train 'A' and 'B' nearing the completion of RF05 on May 30, 1995. In addition, each system train of SLCRS and ABVS and its equipment is proven operable based on a required staggered monthly surveillance. The surveillance verifies fan start, flow through HEPA filters and charcoal adsorbers, system flow rate and heater operation. Based on these results, the reliability of the SLCRS is considered to be high.

Taking into account the number of surveillances performed, inservice testings and enhancements made to the auxiliary building ventilation system in conjunction with the SLCRS, there is a high level of confidence that the SLCRS will be operational to provide its safety-related function and the reliability of the SLCRS is considered acceptable.

In Amendment No. 87, issued December 8, 1993, the acceptance criteria for Surveillance Requirement 4.6.6.1.d.3 was revised. In October 1993, a series of tests were conducted which confirmed that the SLCRS in conjunction with the ABVS would be able to draw down the secondary containment to a negative pressure greater than or equal to 0.4 inches water gauge within 120 seconds following a safety injection signal.

The corrective maintenance performed on the SLCRS equipment included the inspection and repair of dampers and seals, the investigation of low system flow, the removal and analyzing of charcoal, the removal and replacement of HEPA filters, and the investigation of removal of damper fusible links. To improve the operation of the SLCRS, the fan wheel from 3HVR*FN12A/B was replaced with an increased diameter with the same design. The new wheel provides a broader operability range for the fan. No flow irregularities have been identified since the modification. The corrective maintenance performed does not indicate any generic SLCRS problems. The highest number of actions involved the HEPA and charcoal filters. The corrective maintenance tasks reviewed could be performed with the plant on line.

The preventative maintenance for the SLCRS that is performed on an 18-month interval is limited to verifying the capacity of the heaters in the filter housing units (3HVR*FLT3A&B). These heaters have passed their maintenance checks. Therefore, there is no indication that extending the surveillance frequency would cause deterioration of these heaters. Other preventive maintenance tasks are performed at intervals greater than 18 months. For these tasks, the frequency can either be shortened, or the task can be performed at power.

Based on the above, there is reasonable assurance that extending the frequency of Surveillance Requirements 4.6.6.1.b and 4.6.6.1.d will not degrade the ability of the SLCRS from performing its safety function. The proposed changes to the TS are acceptable. The change to the Bases reflects the revised definition of a fuel cycle and is acceptable.

2.2 Control Room Emergency Ventilation, Filtration and Pressurization System

2.2.1 Design Basis

The control room emergency ventilation filtration and pressurization system consists of redundant pressurization air storage tanks and two redundant emergency air filtration units. The air pressurization system operates during the first hour of an accident. After 1 hour, outdoor air can be introduced into the system through the emergency ventilation filtration unit.

The function of the control room envelope pressurization system is to provide breathable air to the control room pressure envelope and to pressurize the envelope area for the first hour following the isolation of the control room envelope due to an accident that causes release of radiation or toxic gases. The control room emergency air filtration system is put into operation approximately 1 hour after the isolation of the pressure envelope as the bottled air supply is exhausted. The function of the control room emergency air filtration system is to continue to maintain pressurization of the pressure envelope after the bottled air system is no longer able to do so. It is also designed to limit the amount of radioactivity introduced into the envelope and filter radioactivity already in the control room. The control room emergency air filtration and envelope pressurization systems are located in the control building.

2.2.2 Proposed TS Changes

Surveillance Requirements 4.7.7.c and 4.7.7.e now require that each control room emergency air filtration system be demonstrated to be OPERABLE at least once per 18 months by: (1) verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria, (2) verifying by laboratory analysis that a representative carbon sample meets its acceptance criteria, (3) verifying a system flow rate of 1120 cfm during system operation, (4) verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks in less than 6.75 inches water gauge,

(5) that the system is capable of maintaining the control room at a positive pressure of greater than or equal to 1/8 inch water gauge, and (6) verifying that the heaters dissipate a specified kW when tested. The licensee proposes to change the frequency of the surveillance tests from once per 18 months to once each refueling interval.

Surveillance Requirement 4.7.8.c now requires that each control room envelope pressurization system be demonstrated OPERABLE at least once per 18 months by: (1) verifying that the control room envelope is isolated in response to a control building isolation (CBI) test signal, (2) verifying that after a 60-second time delay following a CBI test signal, the control room envelope pressurizes to greater than or equal to 1/8 inch water gauge relative to outside atmosphere, and (3) verifying that the positive pressure is maintained for greater than or equal to 60 minutes. The licensee is proposing to extend the frequency of the surveillance interval from once per 18 months to once each refueling interval.

2.2.3 Justification for the TS Changes

In accordance with the guidance in GL 91-04, the licensee evaluated equipment performance over the last four operating cycles to determine the impact of extending the frequency of Surveillance Requirements 4.7.7.c, 4.7.7.e, and 4.7.8.c. The evaluation included a review of surveillance results, preventative maintenance records, and the frequency and type of corrective maintenance. The summary of the surveillance test scope and results are provided below:

1. Control Room Filter Charcoal Analysis:

   There were 9 surveillances performed on Train 'A' and 13 on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

2. Control Room Filter System Flow Rates:

   There were 10 surveillances performed on Train 'A' and 11 on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

3. Control Room Filter Bank Pressure Drop:

   There were seven surveillances performed on Train 'A' and eight on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

4. Control Room Emergency Ventilation HEPA Filter Test:

   There were six surveillances performed on Train 'A' and eight on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

5. Control Room Charcoal Adsorber Test:

There were 10 surveillances performed on Train 'A' and 9 on Train 'B.' In all the cases, the surveillance criterion was met.

6. Control Room Emergency Ventilation Pressurization:

There were seven surveillances performed on Train 'A' and eight on Train 'B.' In three cases, the surveillance criterion did not meet the acceptance criterion. Specifically, the control room pressure did not go above the 0.125 inch of water gauge acceptance criterion. After the investigation and making some adjustments to the control room manual recirculation damper, the tests were conducted on the same or following day and all the retests were acceptable. To prevent recurrence, written changes were made to OPS Form 3314F-9 and 3314F-10 to specify that the recirculation dampers were throttled appropriately to meet the control room pressurization technical specification requirements. At present, the licensee is continuing to investigate alternatives to the current testing methodology, including installation of a flow orifice. It is noted that all other tests met the acceptance criterion.

7. Control Room Envelope Pressurization Test:

There were 13 surveillances performed on Train 'A' and 10 on Train 'B.' Train 'A' had 6 failed surveillances (last test failure occurred on May 5, 1993), and Train 'B' had 3 failed surveillances (last test failure occurred on February 23, 1993). These failures were attributed to problems with the oscillating chilled water valves. Corrective actions were taken to prevent recurrence and the retests were performed in April/May 1993 which met the appropriate acceptance criterion. Since then, additional tests have been performed and, in those cases, the surveillance acceptance criterion was met. All the failed surveillances represented physical plant system conditions or lack of understanding of the allowable differential pressure fluctuation margin. Each issue was identified and corrected by either component and loop adjustment, component replacement, procedural changes or clarifications. In April 1994, a technical clarification was added to the Technical Requirements Manual explaining acceptable pressure fluctuation conditions which result in the differential pressure momentarily dropping below the 0.125 inch water gauge. Prior understanding of this differential pressure fluctuation allowable criteria would have resulted in acceptable surveillances in the majority

(5 of 9) of the failed tests. In addition, due to the extremely high frequency of use, the east control room door was starting to degrade and was replaced during RF05. The following pressurization tests were successful and showed marked improvement in the pressurization margin. Prior replacement of this door could have resulted in acceptable surveillances in an additional two or three of the failed tests. The door replacement was an improvement to the control room pressurization boundary, which is part of the ongoing system preventive maintenance program to inspect all control room boundary doors on a quarterly basis.

8. Control Room Emergency Ventilation Filter Assembly Heaters:

There were six surveillances performed on Train 'A' and six on Train 'B.' In all cases, the surveillance acceptance criterion was met.

Based on the above surveillance results, there is reasonable assurance that extending the frequency of Surveillance Requirements 4.7.7.c, 4.7.7.e and 4.7.8.c will not degrade the capability of the Control Room Emergency Ventilation, Filtration and Pressurization System to perform the intended functions. The proposed changes to extend the surveillance intervals are acceptable.

2.3 Auxiliary Building Filter System

2.3.1 Design Basis

The design and functional requirements of the Auxiliary Building Filter System (ABFS) are described in Section 9.4.3 of the FSAR. The ABFS is comprised of five subsystems: (1) the auxiliary building general area ventilation, (2) the charging pump, reactor plant component cooling water pump, and heat exchanger areas ventilation, (3) auxiliary building filtration system, (4) motor control center, rod control, and cable vault areas ventilation, and (5) electric cable tunnel area ventilation.

The ABFS is a two train safety-related system. The function of the ABFS is to ensure that radioactive material that leaks from the primary containment into the secondary containment following a DBA is filtered out and adsorbed prior to any release to the environment. To accomplish this, the ABVS works in conjunction with the SLCRS. The ABFS is also designed to process exhaust from nonsafety-related fans for filtration of other reactor plant areas when high radioactivity in those areas is detected. The SLCRS and the ABFS fans and filtration units are located in the auxiliary building. The ABFS is designed to operate together with the SLCRS to achieve and maintain a specified negative pressure in all areas within the secondary containment boundary under most meteorological conditions.

During normal plant operations, the ABFS does not normally operate. In the event of a DBA, it and the SLCRS start on receipt of a SIS. The safety assessment of surveillance extensions for the SLCRS was discussed in 2.1 above.

2.3.2 Proposed TS Changes

The operability of the ABFS is verified by Surveillance Requirements 4.7.9.a through 4.7.9.f. Surveillance Requirement 4.7.9.a requires that the ABFS be demonstrated operable at least once per 31 days on a staggered test basis by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers, verifying the flow rate, and operating the system for a minimum period of time. Surveillance Requirements 4.7.9.b, c, e, and f require testing to verify HEPA filter performance, charcoal adsorber efficiency, system flow rate, and the physical properties of the activated charcoal. Surveillance Requirement 4.7.9.d verifies: (1) the pressure drop across the combined HEPA filters and charcoal adsorber banks, (2) that the ABFS starts on an SIS test signal, and (3) the heaters dissipate 180 ± 18 kW.

Currently, Surveillance Requirements 4.7.9.b and 4.7.9.d are required to be performed at least once per 18 months. The licensee is proposing to change this frequency to at least once each refueling interval (i.e., nominal 24 months).

2.3.3 Justification for the TS Changes

In accordance with the guidance in GL 91-04, the licensee evaluated equipment performance over the last four operating cycles to determine the impact of extending the frequency of Surveillance Requirements 4.7.9.b and 4.7.9.d. This evaluation included a review of surveillance results, preventative maintenance records, and the frequency and type of corrective maintenance. The summary of the surveillance test scope and results are provided below:

1. Laboratory Analysis of Auxiliary Building Charcoal Sample:

   There were seven surveillances performed on Train 'A' and six on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

2. Auxiliary Building Filter System Flow Rate:

   There were eight surveillances performed on Train 'A' and eight on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

3. Auxiliary Building Filter Bank Pressure Drop:

   There were seven surveillances performed on Train 'A' and six on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

4. Auxiliary Building Charcoal Adsorber Penetrant and Bypass Leakage Test:

   There were six surveillances performed on Train 'A' and seven on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

5. Auxiliary Building HEPA Filter Bank Leakage Test:

   There were six surveillances performed on Train 'A' and 10 on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

6. ABFS System Fan Start on SIS Signal With the Loss of Power:

   There were seven surveillances performed on Train 'A' and six on Train 'B.' All Train A and B surveillance acceptance criteria, with the exception of one on each train, were met. The Train A failure was due to a power circuit that supplies power to an auxiliary circuit that was not energized. A subsequent test was performed with no failures. The Train B failure was due to a procedural inadequacy. The procedure change was completed and Train B was successfully retested.

7. Auxiliary Building Filter Assembly Heaters:

   There were seven surveillances performed on Train 'A' and six on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

Corrective maintenance records for the auxiliary building filter system equipment were also reviewed. The corrective maintenance on the equipment involved a variety of tasks, the majority of which were involved with charcoal filter inspections and charcoal removal for analysis, air and motor operating damper adjustments, hydrometer oil leak repairs, flow switch modifications and adjustments, and pressure controller and instrument relay modifications and adjustments. The corrective maintenance performed does not indicate any generic ABFS problems. The highest number of actions involved the HEPA and charcoal filters. The corrective maintenance tasks reviewed could be performed with the plant on line.

The preventive maintenance for the ABFS that is performed on an 18-month interval is limited to verifying the capacity of the heaters in the filter housing units. These heaters have passed their maintenance checks. Therefore, there is no indication that extending the surveillance frequency would cause deterioration of these heaters. Other preventive maintenance tasks are performed at intervals greater than 18 months. For these tasks, the frequency can either be shortened, or the task can be performed at power.

During testing in September 1993, near the end of a refueling outage, the licensee determined that the SLCRS (discussed in 2.1 above) could not meet its TS requirements for operability. SLCRS and the ABFS are required to work in unison to allow the SLCRS to draw down a vacuum on the secondary containment boundary. The licensee undertook extensive investigations and tests to characterize the SLCRS and ABFS systems, reassessed the necessary performance requirements for the systems and performed a number of modifications and adjustments. By letter dated November 4, 1993, the licensee requested changes to the TS to extend the required drawdown time of the secondary containment boundary from 60 to 120 seconds and increase the required vacuum from 0.25 to 0.4 inches, based on a compensating reduction in containment leakage rate from 0.65% per day to 0.3% per day. The application was approved by Amendment No. 87 issued December 8, 1993. Both the licensee's application and the staff's safety evaluation include an extensive assessment of the performance history of the SLCRS and ABFS systems as well as evaluation of the capability of these systems to mitigate possible accident and dose consequences.

Based on the surveillance test results and the testing performed in 1993, there is reasonable assurance that extending the frequency of Surveillance Requirements 4.7.9.b and 4.7.9.d will not degrade the capability of the ABFS to perform the intended functions. The proposed changes to extend the surveillance intervals are acceptable.

2.4 Fuel Building Exhaust Filter System

2.4.1 Design Basis

The fuel building ventilation system is described in Section 9.4.2 of the FSAR. The fuel building ventilation system is designed to maintain a suitable environment for equipment operation and to limit potential radioactive release to the atmosphere during normal operation and postulated fuel handling accident conditions. The system consists of a nonsafety-related air supply system and one safety-related and one nonsafety-related exhaust system. The supply air system consists of three 50 percent capacity heating and ventilating units shared between the waste disposal building ventilation system and the fuel building ventilation system. The supply air system provides 39,000 cfm during normal operation.

The exhaust portion of the system consists of redundant safety-related 100 percent capacity special filter assemblies with associated fans and dampers and one nonnuclear safety-related 100 percent capacity exhaust fan. The normal exhaust system provides 41,360 cfm during normal plant operation, while the safety-related exhaust system maintains the building at slightly negative pressure during fuel handling operation and accident conditions in relation to the above supply air quantities. The fuel building ventilation exhaust system serves all areas of the fuel building and is discharged (unfiltered or filtered) through the radiation monitored ventilation vent.

The fuel building exhaust filter system is only required to be operable whenever irradiated fuel with less than 60 days decay is in the storage pool.

2.4.2 Proposed TS Changes

Surveillance Requirement 4.9.12.b demonstrates the operability of the fuel building exhaust filter system by: (1) verifying that it satisfies in-place penetration and bypass leakage testing acceptance criteria, (2) verifying, within 31 days of removal, that a laboratory analysis of a representative carbon sample meets its acceptance criterion, and (3) verifying a system flow rate of 20,700 cfm ± 10 percent during system operation.

Surveillance Requirement 4.9.12.d demonsrates the operability of the fuel building exhaust filter system by: (1) verifying the pressure drop across the combined HEPA filters and charcoal adsorbers at operating system flow rate, (2) verifying that the system is capable of maintaining the spent fuel area at a negative pressure of greater than or equal to 1/4 inch of water gauge (WG) relative to the outside atmosphere during system operation, and (3) verifying that the heaters dissipate specified kW when tested.

The above surveillances are required to be performed at least once per 18 months. The licensee is proposing to extend the frequency of Surveillance Requirements 4.9.12.b and 4.9.12.d from at least once per 18 months to at least once each refueling interval (i.e., nominal 24 months).

Surveillance Requirement 4.9.12.2 now requires that the Fuel Building Exhaust Filter System shall be verified to be operating within 2 hours prior to the initiation of and at least once per 12 hours during either fuel movement within the fuel storage pool or crane operations with loads over the fuel storage pool. The licensee proposes to add the words: "whenever irradiated fuel with less than 60 days decay is in the storage pool" to make the surveillance consistent with the APPLICABILITY requirement for LIMITING CONDITION FOR OPERATION 3.9.12.

2.4.3 Justification for the TS Changes

In accordance with the guidance in GL 91-04, the licensee evaluated equipment performance over the last four operating cycles to determine the impact of extending the frequency of Surveillance Requirements 4.9.12.b and 4.9.12.d. This evaluation includes a review of surveillance results, preventive maintenance records, and the frequency and type of corrective maintenance. The summary of the surveillance test scope and results are provided below:

1. In-place Penetration and Bypass Leakage Testing:

   There were five surveillances performed on Train 'A' and five on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

2. Fuel Building Exhaust Filter System Charcoal Analysis:

   There were five surveillances performed on Train 'A' and five on Train 'B.' In all the cases, the surveillance acceptance criterion was met.

3. Fuel Building Exhaust Filter System Flow Rate:

   There were five surveillances performed on Train 'A' and five on Train 'B.' In all the cases except one, the surveillance criterion was met. The failure on Train 'B' was possibly due to a roll-up door being open. The Train 'B' was retested successfully.

4. Fuel Building Exhaust Filter System Bank Pressure Drop:

   There were five surveillances performed on Train 'A' and five on Train 'B.' In all the cases, the surveillance criterion was met.

5. Fuel Building Exhaust Filter System:

   There were six surveillances performed on Train 'A' and six on Train 'B.' In all the cases, except for one Train 'A' and Train 'B' surveillance, the criterion was met. The failure of the negative pressure tests was caused by an improperly calibrated damper controller. The Train 'A' and 'B' surveillances were performed successfully.

6. Fuel Building Exhaust Filter Assembly Heaters:

   There were seven surveillances performed on Train 'A' and seven on Train 'B.' In all the cases, the surveillance criterion was met.

The results of the review of the past corrective maintenance on the equipment do not suggest that an extension of the interval between testing would have an adverse effect on safety.

The only preventive maintenance required for the system on an 18-month frequency is the check of the power dissipation by the electrical heaters. This is covered by Surveillance Requirement 4.9.12.d(3) on an 18-month basis. In addition, the results of the review of the preventive maintenance on the equipment do not suggest that an extension of the interval between testing would have an adverse effect on safety.

Based on the surveillance test results, there is reasonable assurance that extending the frequency of Surveillance Requirements 4.9.12.b and 4.9.12.d will not affect the capability of the Fuel Building Exhaust Filter System to

perform the intended function when irradiated fuel with less than 60 days decay is in the spent fuel pool. The proposed TS changes are acceptable.

The proposed revision of Surveillance Requirement 4.9.12.2 for consistency is administrative and has no safety significance. The additional words the licensee proposes to add to 4.9.12.2 are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 58402). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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