December 2, 1997

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Mr. John K. Wood
Vice President - Nuclear, Davis-Besse
Centerior Service Company
c/o Toledo Edison Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: AMENDMENT NO. 217 TO FACILITY OPERATING LICENSE NO. NPF-3 - DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 (TAC NO. M96602)

Dear Mr. Wood:

The Commission has issued the enclosed Amendment No. 217 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1. The amendment revises the Technical Specifications (TSs) in response to your application dated September 17, 1996, as supplemented by letters dated November 27, 1996, and October 14, 1997.

This amendment revises the surveillance interval from 18 months to each refueling interval (≤ 730 days, nominally 24 months) for TS 3/4.5.2, "Emergency Core Cooling Systems - ECCS Subsystems - Tavg ≥ 280°F"; TS 3/4.6.5.1, "Containment Systems - Shield Building - Emergency Ventilation System"; TS 3/4.7.6.1, "Plant Systems - Control Room Emergency Ventilation System"; TS 3/4.7.7.2, "Plant Systems - Snubbers"; TS 3/4.9.12, "Refueling Operations - Storage Pool Ventilation"; and TS Bases 3/4.7.7, "Snubbers."

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by:

Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 217 to License No. NPF-3
2. Safety Evaluationn

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DOCUMENT NAME: G:\DAVISBES\DB96602.AMD *See previous concurrence

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

December 2, 1997

Mr. John K. Wood
Vice President - Nuclear, Davis-Besse
Centerior Service Company
c/o Toledo Edison Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

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Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 217 to License No. NPF-3
2. Safety Evaluation

cc w/encls: See next page

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

TOLEDO EDISON COMPANY

CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 217
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company (the licensees) dated September 17, 1996, as supplemented by letters dated November 27, 1996, and October 14, 1997, 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.

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. NPF-3 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 217 , are hereby incorporated in the license. The Toledo Edison Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented no later than 120 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of issuance: December 2, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 217

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

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 area of change.

Remove	Insert
3/4 6-28	3/4 6-28
3/4 6-29	3/4 6-29
3/4 7-17	3/4 7-17
3/4 7-18	3/4 7-18
3/4 7-23	3/4 7-23
3/4 9-12	3/4 9-12
B 3/4 7-5a	B 3/4 7-5a

3/4.6.5 SHIELD BUILDING

EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.1 Two independent emergency ventilation systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1 Each emergency ventilation system shall be demonstrated OPERABLE:

a. 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 and verifying that the system operates for at least 15 minutes.

b. At least once each REFUELING INTERVAL 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:

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% 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 8,000 cfm ± 10%;

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 methyliodide penetration of less than 1%; and

3. Verifying a system flow rate of 8,000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation by 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 methyliodide penetration of less than 1%.

d. At least once each REFUELING INTERVAL by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 8,000 cfm ± 10%;

2. Verifying that the system starts automatically on any containment isolation test signal;

3. Verifying that the filter cooling bypass valves can be manually opened; and

* The test is performed in accordance with ASTM D 3803-1979 with the following conditions: 1) equilibrate for 16 hours at 30°C/70% relative humidity (RH), 2) challenge for 2 hours at 30°C/70% RH, 3) elution for 2 hours at 30°C/70% RH.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 Two independent control room emergency ventilation systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one control room emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.6.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F when the control room emergency ventilation system is operating.

b. 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 and verifying that the system operates for at least 15 minutes.

c. At least once each REFUELING INTERVAL 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:

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% 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 3300 cfm ±10%;

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 methyliodide penetration of less than 1%; and

3. Verifying a system flow rate of 3300 cfm ±10% during system operation when tested in accordance with ANSI N510-1980.

d. After every 720 hours of charcoal adsorber operation by 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 methyliodide penetration of less than 1%.

e. At least once each REFUELING INTERVAL by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.4 inches Water Gauge while operating the system at a flow rate of 3300 cfm ±10%;

2. Verifying that the control room normal ventilation system is isolated by a SFAS test signal and a Station Vent Radiation High test signal; and

* The test is performed in accordance with ASTM D 3803-1979 with the following conditions: 1) equilibrate for 16 hours at 30°C/70% relative humidity (RH), 2) challenge for 2 hours at 30°C/70% RH, 3) elution for 2 hours at 30°C/70% RH.

SURVEILLANCE REQUIREMENTS (Continued)

The inspection interval for functional testing shall be each REFUELING INTERVAL.

Snubbers which are scheduled for removal for seal maintenance may be included in the test sample prior to any maintenance on the snubber.

The representative sample shall consist of at least 10 percent (rounded off to next highest integer) of each group of snubbers in use in the Plant. The selection process shall ensure that all snubbers, regardless of their accessibility classification, are functionally tested at least once every ten inspection intervals.

c. Acceptance Criteria

For hydraulic snubbers (either inplace testing or bench testing), the test shall verify that:

1. Snubber piston will allow the hydraulic fluid to "bypass" from one side of the piston to the other to assure unrestrained action is achieved within the specified range of velocity or acceleration in both tension and compression.

2. When the snubber is subjected to a movement which creates a load condition that exceeds the specified range of velocity or acceleration, the hydraulic fluid is trapped in one end of the snubber causing suppression of that movement.

3. Snubber release rate or bleed rate, where required, occurs in compression and tension.

For mechanical snubber in place and bench testing, the test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

2. Activation (restraining action) is achieved in both tension and compression within the specified range.

STORAGE POOL VENTILATION

LIMITING CONDITION FOR OPERATION

3.9.12 Two independent emergency ventilation systems servicing the storage pool area shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the storage pool.

ACTION:

a. With one emergency ventilation system servicing the storage pool area inoperable, fuel movement within the storage pool or crane operation with loads over the storage pool may proceed provided the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

b. With no emergency ventilation system servicing the storage pool area OPERABLE, suspend all operations involving movement of fuel within the storage pool or crane operation with loads over the storage pool until at least one system is restored to OPERABLE status.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 The above required emergency ventilation system servicing the storage pool area shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.6.5.1, and at least once each REFUELING INTERVAL by verifying that the emergency ventilation system servicing the storage pool area maintains the storage pool area at a negative pressure of ≥ 1/8 inches Water Gauge relative to the outside atmosphere during system operation.

4.9.12.2 The normal storage pool ventilation system shall be demonstrated OPERABLE at least once each REFUELING INTERVAL by verifying that the system fans stop automatically and that dampers automatically divert flow into the emergency ventilation system on a fuel storage area high radiation test signal.

When a snubber is found inoperable through a visual or functional test, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested each REFUELING INTERVAL. Observed failures of these sample snubbers shall require functional testing of additional units. When a snubber is found to be inoperable due to failure to lock up or failure to move (i.e., frozen in place), the cause will be evaluated for further action or testing.

In cases where the cause of failure has been identified, additional snubbers that have a high probability for the same type of failure or are being used in the same application that caused the failure shall be tested. This requirement increases the probability of locating inoperable snubbers without testing 100% of the snubbers.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 217 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

1.0 INTRODUCTION

By letter dated September 17, 1996, as supplemented by letters dated November 27, 1996, and October 14, 1997, Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company (the licensees), submitted a request for changes to the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1, Technical Specifications (TSs). The supplemental information did not impact the proposed no significant hazards consideration determination.

The requested amendment would revise the surveillance interval from 18 months to each refueling interval (≤ 730 days, nominally 24 months) for TS 3/4.5.2, "Emergency Core Cooling Systems - ECCS Subsystems - Tavg ≥ 280°F"; TS 3/4.6.5.1, "Containment Systems - Shield Building - Emergency Ventilation System"; TS 3/4.7.6.1, "Plant Systems - Control Room Emergency Ventilation System"; TS 3/4.7.7.2, "Plant Systems - Snubbers"; TS 3/4.9.12.1 and 3/4.9.12.2, "Refueling Operations - Storage Pool Ventilation"; and TS Bases 3/4.7.7, "Snubbers."

2.0 BACKGROUND

Improved reactor fuels allow licensees to consider an increase in the duration of the fuel cycle for their facilities. The staff has reviewed requests for individual plants to modify surveillance intervals to be compatible with a 24-month fuel cycle. The NRC issued Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," on April 2, 1991, to provide generic guidance to licensees for preparing such license amendment requests.

TSs that specify an 18-month surveillance interval could be changed to state that these surveillances are to be performed once per refueling interval. The notation for surveillance intervals would then be changed to include the definition of a "Refueling Interval" with the existing "R" notation for

surveillances that are generally performed during a refueling outage. The frequency for the interval indicated by this notation would also be changed from 18 months to "at least once every 24 months." The provision to extend surveillances by 25 percent of the specified interval would extend the time limit for completing these surveillances from the existing limit of 22.5 months to a maximum of 30 months.

Licensees must address instrument drift when proposing an increase in the surveillance interval for calibrating instruments that perform safety functions including providing the capability for safe shutdown. The effect of the increased calibration interval on instrument errors must be addressed because instrument errors caused by drift were considered when determining safety system setpoints and when performing safety analyses.

For other 18-month surveillances, licensees should evaluate the effect on safety of the change in surveillance intervals to accommodate a 24-month fuel cycle. This evaluation should support a conclusion that the effect on safety is small. In addition, licensees should confirm that historical maintenance and surveillance data do not invalidate this conclusion. Licensees should confirm that the performance of surveillances at the bounding surveillance interval limit provided to accommodate a 24-month fuel cycle would not invalidate any assumption in the plant licensing basis. In consideration of these confirmations, the licensees need not quantify the effect of the change in surveillance intervals on the availability of individual systems or components.

3.0 EVALUATION

This license amendment request will extend surveillance testing intervals from every 18 months to each refueling interval. The licensees propose replacing "at least once per 18 months" with "at least once each REFUELING INTERVAL," for the TSs described below.

The proposed changes allow the continued application of TS 4.0.2. This TS allows surveillance intervals to be increased up to 25% on a non-routine basis (30 months) in accordance with the GL. A paragraph was added (Amendment 213 dated February 10, 1997) to TS Bases 4.0.2, consistent with GL 91-04, that ensures that surveillances are performed in an operational mode consistent with safe plant operation. This TS Bases section already included clarification that the allowable tolerance not be used as a convenience to repeatedly schedule the performance of surveillances at the allowable tolerance limit.

The licensees performed the safety assessment for the proposed changes to the surveillance test intervals in accordance with the GL 91-04 requirements stated above. This assessment entailed reviewing the historical maintenance and surveillance test data at the bounding surveillance interval limit, performing an evaluation to ensure that a 24-month surveillance test interval would not invalidate any assumption in the plant licensing bases, and the determination that the effect on safety is small. Only the period since 1985 was reviewed. This is most representative of current operating conditions since many changes occurred after the loss of feedwater event in 1985. This

period includes five refueling outages and four operating cycles of test results.

3.1 TSP Volume

The proposed change of the surveillance interval for TS surveillance requirement (SR) 4.5.2.d is for Item 4 only. Items 1 and 2 were addressed in Amendment No. 216, issued simultaneously with this amendment. Changes to this TS page are included in that amendment only. SR 4.5.2.d.4 requires that at least once per 18 months the operability of the emergency core cooling systems (ECCS) be demonstrated by verifying that a minimum volume of trisodium phosphate dodecahydrate (TSP) is contained within the TSP storage baskets that are located inside the containment building.

The staff reviewed the proposed changes and the licensing basis. In addition to the license and TSs, the licensing basis includes Updated Safety Analysis Report (USAR) Section 6.2.2.2.2, "Containment Spray System," Section 6.3.3.2, "Additional Considerations for ECCS Performance," and Section 9.3.3.2, "Post-LOCA Sump pH-Control."

The licensees evaluated the potential for degradation of the TSP by documenting that the TSP has a tendency to agglomerate from high humidity in the containment which causes the density to increase and the volume to decrease during normal plant operation. However, the required mass of TSP would remain available and the solubility characteristics would not be affected. Therefore, there would be no effect on the ability to mitigate an accident. Extending the surveillance interval would not affect any accident initiators or affect the consequences of an accident. The review of surveillance test data indicated no failures or significant degradation. The minimum TSP volume acceptance criterion was always met. A maintenance record review was not performed since maintenance to the baskets has not been required. The licensees concluded that the licensing basis will not be invalidated by increasing the surveillance interval and the impact of safety is small.

All actions specified in the GL were completed. The effect on safety would be small, historical data does not contradict this conclusion, and no assumptions in the plant licensing basis would be invalidated. Therefore, this change is acceptable.

3.2 Emergency Ventilation Systems - Shield Building

The proposed amendment will change the surveillance interval from 18 months to each refueling interval for the following two SRs:

(1) SR 4.6.5.1.b for the Shield Building Emergency Ventilation System (EVS) requires demonstrating that each train of the Shield Building EVS is operable at least once per 18 months; after any structural maintenance on the HEPA filter or charcoal adsorber housings; or following any painting, fire or chemical release in any ventilation zone communicating with the system, by: (1) verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria; (2) verifying

within 31 days after removal, that a laboratory analysis of a representative carbon sample meets the laboratory testing criteria; and (3) verifying the required system flowrate.

(2) SR 4.6.5.1.d requires demonstrating Shield Building EVS operability by: (1) verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches water gauge while operating the system at a flow rate of 8,000 cfm $\pm$ 10%; (2) verifying that the system starts automatically on any containment isolation test signal; (3) verifying that the filter cooling bypass valves can be manually opened; and (4) verifying that each system produces a negative pressure $\geq$ 0.25 inch water gauge in the annulus within 4 seconds after the fan attains a flow rate of 8000 cfm $\pm$ 10%, where the test is to be performed with the flow path established prior to starting the EVS fan, and the other dampers associated with the negative pressure boundary closed.

The Shield Building EVS has two redundant subsystems, each with prefilters, high efficiency particulate air (HEPA) filters and charcoal adsorbers to remove gaseous activity (principally iodines) resulting from a loss-of-coolant accident (LOCA). The charcoal adsorber section of the EVS has two beds in series, each two-inches thick. The plant design is based on one two-inch thick bed. Following a LOCA, a safety feature actuation signal (SFAS) starts the EVS fans and opens the dampers located in the penetration rooms' outlet ductwork to exhaust the air from the containment annulus and penetration room to provide a negative pressure in the annulus.

The 18-month surveillance intervals for the EVS were based on the guidance of Regulatory Guide (RG) 1.52, Revision 2, "Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," dated March 1978. If the proposed amendment is approved, the deviation from RG 1.52 would be added to the DBNPS USAR to reflect a revised licensing basis.

The staff reviewed the proposed changes and the licensing basis. In addition to the license and TSs, the licensing basis includes USAR Section 6.2.3, "Containment Vessel Air Purification and Cleanup Systems," RG 1.52, and Generic Letter (GL) 83-13, "Clarification of Surveillance Requirements for HEPA Filter and Charcoal Adsorber Units in Standard Technical Specifications on ESF Cleanup Systems."

The licensees determined that during the period since 1985, which includes five refueling outages and four operating cycles, all SR 4.6.5.1.b and SR 4.6.5.1.d test results met the specified requirements with the following exception. There were three occurrences where individual charcoal bed samples failed to meet SR 4.6.5.1.b requirements for methyliodide penetration. The failures were due to normal use and aging. Each time the charcoal bed was replaced. However, due to the additional series charcoal bed, the overall total system iodide penetration always complied with SR 4.6.5.1.b. The charcoal bed efficiency always exceeded the value assumed in the accident analysis. Therefore, there were no failures that would have prevented the EVS from performing its function.

Currently, the licensees are trending the laboratory results of charcoal bed testing to predict the need for charcoal bed replacement. The purpose of the trending program is to provide for charcoal bed replacement prior to loss of train operability. Recent experience shows that a charcoal bed will last approximately 6 years.

The licensees also reviewed maintenance records during the period since 1985. Though there were several instances of equipment problems, operability and functionality were not affected, and there were no repetitive failures.

The licensees concluded that the results of the maintenance and surveillance review determined that the deviation from RG 1.52 was acceptable. The licensees further concluded that the remaining licensing basis will not be invalidated by increasing the surveillance interval, and that the impact on safety is small.

All actions specified in the GL were completed. The effect on safety would be small, historical data does not contradict this conclusion, and, except for one deviation, no assumptions in the plant licensing basis would be invalidated. The staff reviewed the deviation from RG 1.52, and determined that it was acceptable due to the historical performance of the filters and the licensees' current performance trending program. Therefore, this change is acceptable.

3.3 Storage Pool Emergency Ventilation System

The proposed amendment will change the surveillance interval from 18 months to each refueling interval for the following two SRs:

(1) SR 4.9.12.1 requires that two independent EVS systems servicing the storage pool area be demonstrated operable at least once per 18 months per the applicable requirements of SR 4.6.5.1, and by verifying that the EVS servicing the storage pool area maintains the storage pool area at the required negative pressure relative to the outside atmosphere during system operation.

(2) SR 4.9.12.2 requires that the normal storage pool ventilation system be demonstrated operable at least once per 18 months by verifying that the system fans stop automatically and that the dampers automatically divert flow into the EVS on a fuel storage area high radiation signal.

The staff reviewed the proposed changes and the licensing basis. In addition to the TSs and the license, the licensing basis includes USAR Section 3D.2.13, "Safety Guide 13 - 'Fuel Storage Facility Design Basis' (March 1971)," USAR Section 9.4.2.2, "Fuel Handling Area," RG 1.52, and GL 83-13.

The storage pool EVS utilizes, in part, the shield building EVS to meet the requirements of 4.9.12.1. Therefore, the acceptability of the results of the review of surveillance and maintenance records for the shield building EVS, and of the deviation from RG 1.52, are applicable to this SR. In addition, the licensees determined that all SR 4.9.12.1 and SR 4.9.12.2 surveillance tests over the stated period met the specified requirements.

The licensees also reviewed maintenance records during the period since 1985. Though there were several instances of equipment problems, operability and functionality were not affected, and there were no repetitive failures.

The licensees concluded that extending the surveillance interval from 18 months to each refueling interval would have a small effect on safety, that historical data does not contradict this conclusion, and that the licensing basis would be adequately updated to reflect the deviation from RG 1.52.

All actions specified in the GL were completed. The effect on safety would be small, historical data does not contradict this conclusion, and, except for one deviation, which is acceptable, no assumptions in the plant licensing basis would be invalidated. Therefore, this change is acceptable.

3.4 Control Room EVS

The proposed amendment will change the surveillance interval from 18 months to each refueling interval for the following two SRs:

(1) SR 4.7.6.1.c requires demonstrating that each train of the Control Room EVS (CREVS) is operable at least once per 18 months; after any structural maintenance on the HEPA filter or charcoal adsorber housings; or following any painting, fire or chemical release in any ventilation zone communicating with the system, by: (1) verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria; (2) verifying within 31 days after removal that a laboratory analysis of a representative carbon sample meets the laboratory testing criteria; (3) verifying the required system flowrate.

(2) SR 4.7.6.1.e requires demonstrating CREVS operability by: (1) verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.4 inches water gauge while operating the system at a flow rate of 3300 cfm $\pm$ 10%; (2) verifying that the system is isolated by an SFAS test signal; (3) verifying that the makeup flow of the system is 300 cfm $\pm$ 10% when supplying the control room with outside air.

The CREVS consists of two 100 percent capacity (3300 cfm) redundant fan-filter assemblies. Each filter system includes a roughing filter, high-efficiency filter, and charcoal adsorber. A cooling coil and water-cooled condensing unit are provided for each system to provide suitable temperature conditions in the control room for operating personnel and safety-related control equipment. Two 100 percent capacity redundant air-cooled condensing units are provided as a backup to the water-cooled condensing units. On high refrigerant head pressure, the service water valve closes and the refrigerant solenoid valves align the air-cooled condensing unit automatically.

The CREVS is designed to maintain a temperature of 95°F or below in the control room and shift manager's office. The CREVS is capable of maintaining 0.15 inches water gauge positive pressure in the control room with a 1.5 square foot leakage area from the control room with air at 75°. The CREVS functions to mitigate the consequences of certain design basis accidents by

pressurizing the control room and providing filtered recirculated air to control room personnel.

The staff reviewed the proposed changes and the licensing basis. In addition to the license and the TSs, the licensing basis includes RG 1.52, GL 83-13, and USAR Section 9.4.1, "[Air Conditioning, Heating, Cooling, and Ventilation Systems -] Control Room," Section 12.2.1, "[Ventilation -] Design Objectives," and Section 12.2.2.4, "[Ventilation -] Control Room." Extending the surveillance intervals will not affect any accident initiators, or affect the consequences of an accident. However, approval of the proposed change to each refueling interval will constitute a deviation from RG 1.52 guidance for an 18-month testing interval for ESF systems. This deviation would be added to the USAR to reflect a revised licensing basis.

The only surveillance test failure for the CREVS occurred during the fifth refueling outage when charcoal sampled per SR 4.7.6.1.c.2 did not meet the laboratory testing criteria for a methyliodide penetration of less than 1% for both trains of charcoal. Since that time, a trending program was established that allows charcoal to be replaced so that test failures do not occur. All other components have demonstrated their ability to perform their function over two 18-month cycles without failure. Components of the CREVS are exercised by other, more frequent surveillances, such that the components will not be experiencing a longer period of disuse or a longer period between operation.

The CREVS maintenance records since 1985 were reviewed. Only one failure occurred during the time period because of a slow closing damper. Preventive maintenance is performed which includes inspecting the control room isolation damper actuators for air leaks, inspecting damper blades and seals, repair/replacement of blades/seals as necessary, seal lubrication, and stroking dampers every refueling outage. These preventive maintenance procedures ensure the dampers are in good condition to be able to isolate the control room when needed. Therefore, the licensees concluded that there is a low potential for any significant increases in failure rates of the components under a nominal 24-month operating cycle.

All actions specified in the GL were completed. The effect on safety would be small, historical data does not contradict this conclusion, and, except for one deviation, which is acceptable (see Section 3.2), no assumptions in the plant licensing basis would be invalidated. Therefore, this change is acceptable.

3.5 Snubbers

SR 4.7.7.2.b requires that the inspection interval for snubber functional testing shall be 18 months. This interval is reiterated in TS Bases 3/4.7.7. The proposed amendment replaces "18 months" with "each refueling interval" for both SR 4.7.7.2.b and Bases 3/4.7.7.

The operability of the snubbers ensures that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a dynamic event. Snubbers are used to restrain piping or

equipment during dynamic events or transient loads, while allowing unrestrained movement of the piping/component during normal heatup and cooldown operations. Extending the surveillance interval from 18 months to each refueling interval will not affect any accident initiators, or affect the consequences of an accident.

The 18-month surveillance interval was selected mainly to accommodate the need to test snubbers that were inaccessible during operation. The sample size of 10 percent was selected to ensure all snubbers were tested over a 15-year period. Extension to 24 month refueling intervals would extend testing to a 20-year cycle before all snubbers are tested. However, the testing of each group of snubbers each refueling interval will ensure that any programmatic problems with snubber types are found and, if necessary, the number of snubbers inspected increased accordingly.

The licensees' supplemental submittal dated October 14, 1997, provided additional details about snubber inspections and service life monitoring. The licensees' current service life process is being formalized based on 1996 ASME Code recommendations. The formal program will incorporate trending of several parameters to help predict and reevaluate snubber service life.

The staff reviewed the proposed changes and the licensing basis. In addition to the license and TSs, the licensing basis includes USAR Section 3, "Design Criteria - Structures, Components, Equipment, and Systems."

A review of surveillance test data since 1985 found 10 snubbers inoperable. Eight failures were found during refueling outage (RFO) 5. The result of the evaluations indicated only two of the snubbers would have affected operability. One failure occurred during RFO 6, and one during RFO 9. Evaluations indicated that these failures did not affect the ASME Code allowables for the piping systems. No failures were found in RFO 7 or 8.

Maintenance records indicate that, other than the testing failures detailed above, there was one snubber found during RFO 7 as part of the visual inspection that was functionally tested and failed. The evaluation performed showed that the failure would not have affected system operability. During RFO 5, several mechanical snubbers failed and were replaced with hydraulic snubbers.

The licensees concluded that the number of snubber failures during functional testing and visual inspection is a small percentage of the total snubber population and the effect on safety of increasing the functional testing and visual inspection intervals to 24 months is small.

All actions specified in the GL were completed. The effect on safety would be small, historical data does not contradict this conclusion, and no assumptions in the plant licensing basis would be invalidated. Therefore, the TS and TS Bases changes are acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent 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 (61 FR 52972). 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.

6.0 CONCLUSION

The staff 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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