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U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Document Control Desk

Subject: Oconee Nuclear Station
Docket Numbers 50-269, 270, and 287
Technical Specification Bases (TSB) Change

Please find attached revisions to TSB 3.7.9 Control Room Ventilation System (CRVS) Booster Fans, which were implemented on October 11, 2001. The changes revise the Bases to clarify what condition entries are applicable when access doors are open in the CRVS System.

Attachment 1 contains the new Technical Specification Bases pages and Attachment 2 contains the markup version of the Bases page.

If any additional information is needed, please contact Larry E. Nicholson, (864-885-3292)

Very truly yours,

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A001

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Attachment 1

B 3.7 PLANT SYSTEMS

B 3.7.9 Control Room Ventilation System (CRVS) Booster Fans

BASES

BACKGROUND

The CRVS Booster Fan trains provide a protected environment from which operators can control the unit following an uncontrolled release of radioactivity, chemicals, or toxic gas.

Each CRVS Booster Fan train consist of a fan filter assembly, Booster Fans, Ducting, and Dampers. Each filter train consists of a pre-filter, a high efficiency particulate air (HEPA) filter, and a charcoal filter.

The CRVS Booster Fan trains are an emergency system. Upon receipt of a radiation alarm from the control room air radiation monitor, the CRVS Booster Fan trains can be started manually to minimize unfiltered air from entering the control room. Upon starting the fans, dampers are automatically positioned to isolate the control room. The pre-filters remove any large particles in the air, and any entrained water droplets present, to prevent excessive loading of the HEPA and carbon filters.

The two CRVS Booster Fan trains, when operated simultaneously, can pressurize the control room to minimize infiltration of unfiltered air. The CRVS operation is discussed in the UFSAR, Section 9.4 (Ref. 1).

APPLICABLE SAFETY ANALYSES

The CRVS Booster Fan train components are arranged in two ventilation trains. The location of components and ducting ensures an adequate supply of filtered air to all areas requiring access. The CRVS provides airborne radiological protection for the control room operators for the most limiting design basis loss of coolant accident fission product release presented in the UFSAR, Chapter 15 (Ref. 2).

The CRVS Booster Fan trains satisfy Criterion 3 of 10 CFR 50.36 (Ref. 3).

LCO

Two CRVS trains are required to be OPERABLE. Total system failure could result in excessive doses to the control room operators in the event of a large radioactive release.

BASES

LCO (continued)

The CRVS Booster Fan trains are considered OPERABLE when the individual components necessary to control operator exposure are OPERABLE in both trains. A CRVS Booster Fan train is considered OPERABLE when the associated:

a. Booster Fan is OPERABLE;

b. HEPA filter and carbon absorber are not excessively restricting flow, and are capable of performing their filtration functions; and

c. Ductwork, valves, and dampers are OPERABLE, and control room pressurization can be maintained with both trains operating.

In addition, the control room boundary, including the integrity of the walls, floors, ceilings, ductwork, and access doors, must be maintained within the assumptions of the design analysis.

Breaches (excluding the removal of system performance test port caps per testing procedures) in the CRVS, most commonly due to the opening of access doors, introduces the possibility of allowing unfiltered or unanalyzed concentrations of inleakage into the Control Room. This applies to breaches of the outside air filter trains, main air handling units and all ductwork outside the Control Room pressure boundary. Breaches are equivalent to two Booster Fan trains out of service.

APPLICABILITY

In MODES 1, 2, 3, and 4, the CRVS Booster Fan trains must be OPERABLE to reduce radiation dose to personnel in the control room during and following an accident.

ACTIONS

A.1

With the two CRVS Booster Fan trains incapable of pressurizing the control room, the capability to pressurize the control room must be restored within 30 days. In this Condition, the capability to minimize the radiation dose to personnel located in the control room during and after an accident is not assured. One or both CRVS Booster Fan trains may be OPERABLE in this Condition. If one or both CRVS Booster Fans are simultaneously inoperable, the Completion Time for these separate Conditions is more limiting than the 30 day Completion Time for Action A.1. If OPERABLE the CRVS Booster Fan train(s) can provide some

BASES

ACTIONS

A.1 (continued)

dose reduction. The 30 day Completion Time is based on the low probability of an accident occurring during the time period and the potential for OPERABLE CRVS Booster Fan trains to provide some dose reduction.

B.1

With one CRVS Booster Fan train inoperable for reasons other than Condition A, action must be taken to restore the train to OPERABLE status within 72 hours. In this Condition, the remaining OPERABLE CRVS Booster Fan train provides some dose reduction for personnel in the control room. The 72 hour Completion Time is based on the low probability of an accident occurring during this time period, and ability of the remaining train to provide some dose reduction.

C.1

With the two CRVS Booster Fan trains inoperable for reasons other than Condition A, one train must be restored to OPERABLE status within 24 hours. In this Condition, the capability to minimize the radiation dose to personnel located in the control room during and after an accident is unavailable. The 24 hour Completion Time is based on the low probability of an accident occurring during this time period.

D.1

If the inoperable CRVS Booster Fan trains cannot be restored to OPERABLE status within the required Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours, and in MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.9.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not severe, testing each train once every 92 days

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.9.1 (continued)

adequately checks this system. The trains need only be operated for ≥ one hour and all louvers verified to be OPERABLE to demonstrate the function of the system. This test includes an external visual inspection of the CRVS Booster Fan trains. The 92 day Frequency is based on the known reliability of the equipment.

SR 3.7.9.2

This SR verifies that the required CRVS Booster Fan train testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The CRVS Booster Fan train filter test frequencies are in accordance with Regulatory Guide 1.52 (Ref. 4). The VFTP includes testing HEPA filter performance and carbon adsorber efficiency. Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.9.3

This SR verifies the integrity of the control room enclosure. The control room positive pressure, with respect to potentially contaminated adjacent areas, is periodically tested to verify that the CRVS Booster Fan trains are functioning properly. During the emergency mode of operation, the CRVS Booster Fan trains are designed to pressurize the control room to minimize unfiltered inleakage. The CRVS Booster Fan trains are designed to maintain this positive pressure with both trains in operation. The Frequency of 18 months is consistent with industry practice.

REFERENCES

1. UFSAR, Section 9.4.
2. UFSAR, Chapter 15.
3. 10 CFR 50.36.
4. Regulatory Guide 1.52.

Attachment 2

BASES

LCO (continued)

The CRVS Booster Fan trains are considered OPERABLE when the individual components necessary to control operator exposure are OPERABLE in both trains. A CRVS Booster Fan train is considered OPERABLE when the associated:

a. Booster Fan is OPERABLE;

b. HEPA filter and carbon absorber are not excessively restricting flow, and are capable of performing their filtration functions; and

c. Ductwork, valves, and dampers are OPERABLE, and control room pressurization can be maintained with both trains operating.

In addition, the control room boundary, including the integrity of the walls, floors, ceilings, ductwork, and access doors, must be maintained within the assumptions of the design analysis.

APPLICABILITY

In MODES 1, 2, 3, and 4, the CRVS Booster Fan trains must be OPERABLE to reduce radiation dose to personnel in the control room during and following an accident.

ACTIONS

A.1

With the two CRVS Booster Fan trains incapable of pressurizing the control room, the capability to pressurize the control room must be restored within 30 days. In this Condition, the capability to minimize the radiation dose to personnel located in the control room during and after an accident is not assured. One or both CRVS Booster Fan trains may be OPERABLE in this Condition. If one or both CRVS Booster Fans are simultaneously inoperable, the Completion Time for these separate Conditions is more limiting than the 30 day Completion Time for Action A.1. If OPERABLE the CRVS Booster Fan train(s) can provide some dose reduction. The 30 day Completion Time is based on the low probability of an accident occurring during the time period and the potential for OPERABLE CRVS Booster Fan trains to provide some dose reduction.

P Breaches (excluding the removal of system performance test port caps per testing procedures) in the CRVS, most commonly due to the opening of access doors, introduce the possibility of allowing unfiltered or unanalyzed concentrations of inleakage into the control room. This applies to breaches of the ~~duct work on the upstream side of the control room Booster Fan~~ outside air filter trains, and to breaches of the ~~control room Booster Fan filter trains (including the Booster Fan filter trains)~~. Also included are the main ~~control room~~ air handling units and all ductwork ~~system~~ outside ~~boundary~~ pressure boundary of the ~~main~~ Control room. Breaches are equivalent to two Booster Fan trains out of service.