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AUTH.NAME AUTHOR AFFILIATION
PARKER,W.O. DUKE POWER CO.
RECIP.NAME RECIPIENT AFFILIATION
REED,R.W. OPERATING REACTORS BRANCH 4

SUBJECT: FORWARDS PROPOSED REVISION TO TECH SPECS COVERING RECTOR BLDG HYDROGEN PURGE SYS,PENETRATION ROOM VENTILATION SYS & REACTOR BLDG PURGE FILTERS & PENT FUEL POOL VENTILATION SYS.

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DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

May 1, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. R. W. Reid, Chief
Operating Reactors Branch #4

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

Pursuant to 10CFR50, §50.90, please find attached a proposed revision to the Oconee Nuclear Station Technical Specifications which makes minor changes to Specifications 4.4.3, 4.5.3, and 4.14. These changes are administrative in nature, modifying the format of these specifications.

The format of Specification 4.4.3, Hydrogen Purge System, has been changed to facilitate its implementation. Reference to the use of cold DOP has been deleted and the requirement for a laboratory test following 720 hours of operation has been added. The provision to allow 31 days following removal of a carbon sample has been added and is consistent with Standard Technical Specifications. This provision would allow continued operation of the filter system pending the results of the sample.

Specification 4.5.3, Penetration Room Ventilation System and Specification 4.14, Reactor Building Purge Filters and Spent Fuel Pool Ventilation System have been similarly changed.

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This proposed amendment to the Oconee Nuclear Station Facility Operating License is considered to consist of one Class III and two Class I amendments fees for changes to Specifications 4.4.3, 4.5.3 and 4.14. Thus, a check in the amount of $4,800 is provided to cover the license fees associated with this request.

Very truly yours,

William O. Parker, Jr.

RLG:scs
Attachment

WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, DPR-47 and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

William O. Parker, Jr., Vice President

Subscribed and sworn to before me this 1st day of May, 1979.

Notary Public

My Commission Expires:

February 15, 1982

OCONEE NUCLEAR STATION

PROPOSED TECHNICAL SPECIFICATION REVISION

Pages

4.4-10
4.4-11
4.4-12
4.5-10
4.5-11
4.14-1
4.14-2

4.4.3 Hydrogen Purge System

Applicability

Applies to the Reactor Building hydrogen purge system.

Objective

To verify that the Reactor Building hydrogen purge system is operable.

Specification

4.4.3.1 In-place Testing

a. Annually, an in-place system test shall be performed. This test shall demonstrate that under simulated emergency conditions, the system can be taken from storage and placed into operation within 48 hours.

b. This annual test shall consist of:

1. Visual inspection of the system.

2. Hook-up of the system to one of the three Reactor Buildings.

3. Flow measurement using flow instruments in the portable purging station.

4. Verification that the pressure drop across the combined HEPA filters and charcoal absorber banks is less than six inches of water at the system design flow rate (±10%).

5. Verification of the operability of the heater at rated power when tested in accordance with ANSI N510-1975.

4.4.3.2 Operational Performance Testing

a. The testing requirements of this section may be performed without hooking-up the system to one of the Reactor Buildings.

b. Monthly, the hydrogen purge system shall be operated with the heaters on for at least ten hours.

c. Annually, the hydrogen purge system fans shall be shown to operate at design flow (±10%) when tested in accordance with ANSI N510-1975.

d. Leak tests using DOP or halogenated hydrocarbon, as appropriate shall be performed on the hydrogen purge filters:

1. Annually;

2. After each complete or partial replacement of HEPA filter bank or charcoal adsorber bank;

3. After any structural maintenance on the system housing;

4. After painting, fire, or chemical release in any ventilation zone communicating with the system.

e. The results of the DOP and halogenated hydrocarbon tests on HEPA filters and charcoal adsorber banks shall show $\geq$ 99% DOP removal and $\geq$ 99% halogenated hydrocarbon removal, respectively, when tested in accordance with ANSI N510-1975. Otherwise, the filter system shall be declared inoperable.

f. Annually, following 720 hours of system operation or after painting, fire, or chemical release in any ventilation zone communicating with the system, a carbon sample shall be removed from the Reactor Building purge filters for laboratory analysis. Within 31 days of removal, this sample shall be verified to show $\geq$ 90% radioactive methyl iodide removal when tested in accordance with ANSI N510-1975 (130°C, 95% R.H.). Otherwise, the filter system shall be declared inoperable.

4.4.3.3 H_2 Detector Test

Annually, hydrogen concentration instruments shall be calibrated with proper consideration to moisture effect.

Bases

Pressure drop across the combined high efficiency particulate air (HEPA) filters and charcoal adsorbers of less than 6 inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amount of foreign matter. A test frequency of once per year establishes system performance capability.

HEPA filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine. Bypass leakage for the charcoal adsorbers and particulate removal efficiency for HEPA filters are determined by halogenated hydrocarbon and DOP respectively. The laboratory carbon sample test results indicate a radioactive methyl iodide removal efficiency for expected accident conditions. Operations of the fans significantly different from the design flow will change the removal efficiency of the HEPA filters and charcoal adsorbers. If the performances are as specified, the calculated doses would be less than the guidelines stated in 10 CFR 100 for the accidents analyzed.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Replacement adsorbent should be qualified according to the guidelines of Regulatory Guide 1.52. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be at least two inches in diameter and a length equal to the thickness of the bed. If the iodine removal efficiency test results are unacceptable, all adsorbent in the system should be replaced. Any HEPA filters found defective should be replaced with filters qualified pursuant to Regulatory Position C.3.d of Regulatory Guide 1.52.

Operation of the system every month will demonstrate operability of the filters and adsorber system. Operation for ten hours is used to reduce the moisture built up on the adsorbent.

If painting, fire or chemical release occurs during system operation such that the HEPA filter or charcoal adsorber could become contaiminated from the fumes, chemicals or foreign materials, the same tests and sample analysis should be performed as required for operational use.

4.5.3 Penetration Room Ventilation System

Applicability

Applies to testing of the Penetration Room ventilation system

Objective

To verify that the Penetration Room ventilation system is operable.

Specification

4.5.3.1 Operational and Performance Testing

a. Monthly, each train of the Penetration Room ventilation system shall be operated for at least 15 minutes.

b. Annually, it shall be demonstrated that:

1. The Penetration Room ventilation system fans operate at design flow (± 10%) when tested in accordance with ANSI N510-1975.

2. The pressure drop across the combined HEPA filters and charcoal adsorber banks is less than six inches of water at the system design flow rate (± 10%)

3. Each branch of the Pentration Room ventilation system is capable of automatic initiation.

4. The bypass valve for filter cooling is manually operable.

c. Leak tests using DOP or halogenated hydrocarbon, as appropriate shall be performed on the Penetration Room purge filters:

1. Annually;

2. After each complete or partial replacement of a HEPA filter bank or charcoal adsorber bank;

3. After any structural maintenance on the system housing;

4. After painting, fire, or chemical release in any ventilation zone communicating with the system.

d. The results of the DOP and halogenated hydrocarbon tests on HEPA filters and charcoal adsorber banks shall show $\geq$99% DOP removal and $\geq$99% halogenated hydrocarbon removal, respectively, when tested in accordance with ANSI N510-1975.

e. Annually, following 720 hours of system operation, or after painting, fire, or chemical release in any ventilation zone communicating with the system, a carbon sample shall be removed from the Reactor Building purge filters for laboratory analysis. Within 31 days of removal, this sample shall be verified to show $\geq$90% radioactive methyl iodide removal when tested in accordance with ANSI N510-1975 (130°C, 95% R.H.). Otherwise, the filter system shall be declared inoperable.

Bases

Pressure drop across the combined high efficiency particulate air (HEPA) filters and charcoal adsorbers of less than six inches of water at the system design flow rate will indicate that the filters and adsorbers are not clogged by excessive amounts of foreign matter. A test frequency of once per operating cycle establishes system performance capability.

HEPA filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine. Bypass leakage for the charcoal adsorbers and particulate removal efficiency for HEPA filters are determined by halogenated hydrocarbon and DOP respectively. The laboratory carbon sample test results indicate a radioactive methyl iodide removal efficiency for expected accident conditions. Operation of the fans significantly different from the design flow will change the removal efficiency of the HEPA filters and charcoal adsorbers. If the performances are as specified, the calculated doses would be less than the guidelines stated in 10 CFR 100 for the accidents analyzed.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Replacement adsorbent should be qualified according to the guidelines of Regulatory Guide 1.52. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be replaced. Any HEPA filters found defective should be replaced with filters qualified pursuant to Regulatory Position C.3.d of Regulatory Guide 1.52.

Operation of the system every month will demonstrate operability of the filters and adsorber system. Operation for 15 minutes demonstrates operability and minimizes the moisture build up during testing.

If painting, fire or chemical release occurs during system operation such that the HEPA filter or charcoal adsorber could become contaiminated from the fumes, chemicals or foreign materials, the same tests and sample analysis should be performed as required for operational use.

Demonstration of the automatic initiation capability is necessary to assure system performance capability.

4.14 REACTOR BUILDING PURGE FILTERS AND SPENT FUEL POOL VENTILATION SYSTEM

Applicability

Applies to testing of the Reactor Building purge filters for Units 2 and 3 and the respective spent fuel pool ventilation systems.

Objective

To verify that the Reactor Building purge filters will perform their design function and that when used with the respective spent fuel pool ventilation system, will reduce the off-site dose due to a fuel handling accident.

Specificiation

4.14.1 Operational and Performance Testing

a. Monthly, each train of the spent fuel pool ventilation system shall be operated through the respective Reactor Building purge filters for at least 15 minutes.

b. Annually, the spent fuel pool ventilation fans shall be shown to operate at design flow ± 10% when tested in accordance with ANSI N510-1975.

c. Leak tests using DOP or halogenated hydrocarbon, as appropriate, shall be performed on the Reactor Building purge filters:

1. Annually;

2. After each complete or partial replacement of HEPA filter bank or charcoal adsorber bank;

3. After any structural maintenance on the system housing;

4. After painting, fire, or chemical release in any ventilation zone communicating with the system.

d. The results of the DOP and halogenated hydrocarbon tests on HEPA filters and charcoal adsorber banks shall show $\geq$ 99% DOP removal and $\geq$ 99% halogenated hydrocarbon removal, respectively, when tested in accordance with ANSI N510-1975.

e. Annually, following 720 hours of system operation, or after painting, fire, or chemical release in any ventilation zone communicating with the system, a carbon sample shall be removed from the Reactor Building purge filters for laboratory analysis. Within 31 days of removal, this sample shall be verified to show $\geq$90% radioactive methyl iodide removal when tested in accordance with ANSI N510-1975 (130°, 95% R.H.). Otherwise, the filter system shall be declared inoperable.

Bases

The Unit 2 Reactor Building purge filter is used in the ventilation system for the common spent fuel pool for Units 1 and 2. The Unit 3 Reactor Building purge filter is used in the Unit 3 spent fuel pool ventilation system. Each filter is constructed with a prefilter, an absolute filter and a charcoal filter in series. The high efficiency particulate air (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine.

Bypass leakage for the charcoal adsorbers and particulate removal efficiency for HEPA filters are determined by halogenated hydrocarbon and DOP respectively. The laboratory carbon sample test results indicate a radioactive methyl iodide removal efficiency for expected accident conditions. Operation of the fans significantly different from the design flow will change the removal efficiency of the HEPA filters and charcoal adsorbers. If the performances are as specified, the doses for a fuel handling accident would be minimized.

The frequency of tests and sample analysis are necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. Replacement adsorbent should be qualified according to the guidelines of Regulatory Guide 1.52. The charcoal adsorber efficiency test procedures should allow for the removal of one adsorber tray, emptying of one bed from the tray, mixing the adsorbent thoroughly and obtaining at least two samples. Each sample should be replaced. Any HEPA filters found defective should be replaced with filters qualified pursuant to Regulatory Position C.3.d of Regulatory Guide 1.52.

Operation of the spent fuel pool ventilation system every month will demonstrate operability of the fans, filters and adsorber system.

If painting, fire or chemical release occurs during system operation such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals or foreigh materials, the same tests and sample analysis should be performed as required for operational use.