



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

May 11, 1990

Docket Nos. 50-369
and 50-370

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

SUBJECT: ISSUANCE OF AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NPF-9 AND
AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NPF-17 - MCGUIRE
NUCLEAR STATION, UNITS 1 AND 2 (TACS 76765/76766)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 109 to Facility Operating License NPF-9 and Amendment No. 91 to Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated May 9, 1990, as supplemented May 10, 1990.

The amendments revise the Technical Specifications by revising surveillance requirements with respect to the standard used for laboratory testing of the carbon adsorber in the filter of the Unit 1 Annulus Ventilation (VE) system, and by reducing the lower limit of the associated heat dissipation range for testing the Unit 1 VE system heaters. These changes were requested, and have been granted, on an emergency basis in order to avoid significant delays in the restart of McGuire Unit 1 and to ensure the continued ability of the VE system to achieve its post-accident design function. The changes for Unit 2 are only of an administrative nature because it shares a common Technical Specification document with Unit 1.

As discussed in our associated Safety Evaluation (enclosed) for these amendments, our approval of the Unit 1 changes applies only until July 16, 1991. We have appended a footnote to this end to the revised TS pages. We have also included minor changes to the associated Bases.

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Mr. H. B. Tucker

- 2 -

May 11, 1990

Notice of issuance of amendments and final determination of no significant hazards consideration and opportunity for hearing will be included in the Commission's biweekly Federal Register notice.

Sincerely,

15/

Darl Hood, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. to NPF-9
- 2. Amendment No. to NPF-17
- 3. Safety Evaluation

cc w/enclosures:
See next page

* See previous concurrence.

LA:PDII-3
RIngram
5/11/90

PM:PDII-3
DHood *
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NRR:SPLB
CMcCracken *
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OGC *
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D:PDII-3 *
DMatthews
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DATED: May 11, 1990

AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NPF-9 - McGuire Nuclear Station, Unit 1
AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NPF-17 - McGuire Nuclear Station, Unit 2

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McGuire Nuclear Station

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

DUKE POWER COMPANY

DOCKET NO. 50-369

McGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 109
License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the McGuire Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-9 filed by the Duke Power Company (the licensee) dated May 9, 1990, as supplemented May 10, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page 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-9 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 109, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Gus C. Lainas, Assistant Director
for Region-II Reactors
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: May 11, 1990



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

DUKE POWER COMPANY

DOCKET NO. 50-370

McGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 91
License No. NPF-17

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the McGuire Nuclear Station, Unit 2 (the facility) Facility Operating License No. NPF-17 filed by the Duke Power Company (the licensee) dated May 9, 1990, as supplemented May 10, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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.

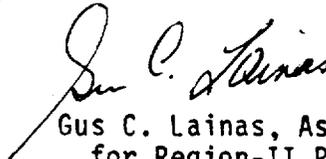
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-17 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 91, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Gus C. Lainas, Assistant Director
for Region-II Reactors
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: May 11, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 109

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 91

FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

Amended Page

Overleaf Page

3/4 6-16

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CONTAINMENT SYSTEMS

ANNULUS VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.8 Two independent Annulus Ventilation Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Annulus 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

4.6.1.8 Each Annulus 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 10 hours with the pre-heaters operating;
- 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 ventilation system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% and uses the test procedure guidance of 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 8000 cfm \pm 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 methyl iodide penetration of less than 1% (Unit 2), and meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, as supplemented by ASTM D3803-86, Test Method A, for a methyl iodide penetration of less than 0.71% (Unit 1)*; and
 - 3) Verifying a system flow rate of 8000 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1975.

*This specification for Unit 1 shall apply until July 16, 1991. Thereafter, this specification for Unit 1 shall read the same as for Unit 2.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 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 methyl iodide penetration of less than 1% (Unit 2), and meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, as supplemented by ASTM D3803-86, Test Method A, for a methyl iodide penetration of less than 0.71% (Unit 1)*;
- 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 inches Water Gauge while operating the system at a flow rate of 8000 cfm \pm 10%;
 - 2) Verifying that the system starts automatically on any Phase B Isolation test signal;
 - 3) Verifying that the filter cooling electric motor-operated bypass valves can be opened;
 - 4) Verifying that each system produces a negative pressure of greater than or equal to 0.5 inch W.G. in the annulus within 22 seconds after a start signal and that this negative pressure goes to -3.5 inches W.G. within 48 seconds after the start signal. Verifying that upon reaching a negative pressure of -3.5 inches W.G. in the annulus, the system switches into its recirculation mode of operation and that the time required for the annulus pressure to increase to -0.5 inch W.G. is greater than or equal to 278 seconds;
 - 5) Verifying that the pre-heaters dissipate 43.0 ± 6.4 kW (Unit 2) and $43.0 + 6.4/-17.5$ kW (Unit 1)* when tested in accordance with ANSI N510-1975.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1975 for DOP test aerosol while operating the system at a flow rate of 8000 cfm \pm 10%; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal adsorber satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 8000 cfm \pm 10%.

*This specification for Unit 1 shall apply until July 16, 1991. Thereafter, this specification for Unit 1 shall read the same as for Unit 2.

CONTAINMENT SYSTEMS

CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.9 Each containment purge supply and/or exhaust isolation valve shall be OPERABLE and:

- a. Each containment purge supply and/or exhaust isolation valve for the lower compartment (24-inch) and instrument room (12-inch and 24-inch) shall be sealed closed, and
- b. The containment purge supply and/or exhaust isolation valve(s) for the upper compartment (24-inch) may be opened for up to 250 hours during a calendar year provided no more than one pair (one supply and one exhaust) are open at one time.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With any containment purge supply and/or exhaust isolation valve for the lower compartment or instrument room open or not sealed closed, close and/or seal closed that valve or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the containment purge supply and/or exhaust isolation valve(s) for the upper compartment open for more than 250 hours during a calendar year, close any open valve or isolate the penetration(s) within 4 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.
- c. With a containment purge supply and/or exhaust isolation valve(s) having a measured leakage rate in excess of the limits of Specifications 4.6.1.9.3 and/or 4.6.1.9.4, restore the inoperable valve(s) to OPERABLE status within 24 hours, otherwise be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

BASES

3/4.6.1.7 REACTOR BUILDING STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment reactor building will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to provide: (1) protection for the steel vessel from external missiles, (2) radiation shielding in the event of a LOCA, and (3) an annulus surrounding the steel vessel that can be maintained at a negative pressure during accident conditions. A visual inspection is sufficient to demonstrate this capability.

3/4.6.1.8 ANNULUS VENTILATION SYSTEM

The OPERABILITY of the Annulus Ventilation System ensures that during LOCA conditions, containment vessel leakage into the annulus will be filtered through the HEPA filters and charcoal adsorber trains prior to discharge to the atmosphere. Cumulative operation of the system with the heaters on for 10 hours over a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. This requirement is necessary to meet the assumptions used in the accident analyses and limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during LOCA conditions. ANSI N510-1975 will be used as a procedural guide for surveillance testing. ASTM D3803-86, Test Method A, will be used for Unit 1 surveillance testing (laboratory test) for methyl iodide penetration in lieu of the laboratory test specified in Regulatory Guide 1.52, Rev. 2, March 1978, Regulatory Position C.6.a. The ASTM D3803-86 test method is used for a relative humidity of 95% at 30°C. The use of this test and the acceptance criterion of a methyl iodide penetration of less than 0.71% are consistent with assumed decontamination efficiencies of 95%. This change resulted from lower VE system heater capacity on Unit 1.

3/4.6.1.9 CONTAINMENT VENTILATION SYSTEM

The containment purge supply and exhaust isolation valves for the lower compartment (24-inch) and instrument room (12-inch and 24-inch) are required to be sealed closed during plant operations since these valves have not been demonstrated capable of closing during a LOCA. Maintaining these valves sealed closed during plant operation ensures that excessive quantities of radioactive material will not be released via the Containment Purge System. To provide assurance that these containment valves cannot be inadvertently opened, the valves are sealed closed in accordance with Standard Review Plan 6.2.4 which includes mechanical devices to seal or lock the valve closed, or prevents power from being supplied to the valve operator.

The use of the containment purge lines is restricted to the purge supply and exhaust isolation valves in the upper compartment (24-inch) since, unlike the valves in the lower compartment and instrument room, the upper compartment valves will close during a LOCA. Therefore, the SITE BOUNDARY dose guideline values of 10 CFR Part 100 would not be exceeded in the event of an accident during containment purging operation. Operation with these valves open will be limited to 250 hours during a calendar year.

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. The 0.60 L_g leakage limit of Specification 3.6.1.2b. shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NPF-9
AND AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

DOCKETS NOS. 50-369 AND 50-370

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated May 9, 1990, as revised and supplemented May 10, 1990, Duke Power Company (the licensee) proposed amendments to the operating licenses for McGuire Nuclear Station, Units 1 and 2, to revise surveillance requirements with respect to the standard used for laboratory testing of the carbon adsorber in the filter of the Unit 1 Annulus Ventilation (VE) system. Presently, for both Units 1 and 2, the carbon adsorber is periodically tested by removing a carbon sample from the filter and performing a laboratory analysis using the 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 1%. For Unit 1 only, the amendment would revise surveillance requirements of Technical Specifications (TSs) 4.6.1.8.b.2 and 4.6.1.8.c to supplement the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52 by specifying use of "Test Method A" of ASTM D3803-86 for a methyl iodide penetration of less than 0.71%. TS 4.6.1.8.d.5 would also be revised for Unit 1 to reduce the lower limit of the allowable heat dissipation range to be 25.5 kW, rather than the existing 36.6 kW, for testing of the VE system heaters. Associated TS Bases 3/4.6.1.8 would be supplemented to discuss use of Test Method A of ASTM D3803-86 for Unit 1.

The licensee has recently discovered that, under certain low voltage conditions in conjunction with a loss of coolant accident, sufficient power may not be supplied to the Unit 1 VE system heaters to maintain the relative humidity of the gases entering the VE carbon adsorber beds below 70% in accordance with existing TS 4.6.1.8. Therefore, the Unit 1 VE system is presently inoperable. McGuire Unit 1 is currently completing a refueling outage and is scheduled to enter Mode 4 (hot shutdown) on May 11, 1990. Because the VE system is required to be operable before entering Mode 4, the licensee requested NRC approval of the proposed amendments on an emergency basis.

The amendments contain no changes of technical substance for Unit 2. Unit 2 is affected only administratively because it shares a common TS document with Unit 1.

2.0 EVALUATION

During a review of the heating, ventilation and air conditioning systems at its Catawba Nuclear Station, the licensee discovered that the VE system heaters were not conservatively sized for all postulated operating modes. During postulated degraded grid voltage conditions with loss of one of the two offsite power sources and with all plant auxiliaries of the unit aligned to the other offsite power source through the remaining step-up transformer, and assuming a concurrent LOCA, sufficient power would not be supplied to the VE system heaters to maintain the relative humidity of the air entering the VE carbon adsorber beds below 70% when the VE system flowrate is at the maximum value, 8800 cfm, allowed by TSs. The licensee's subsequent review of the McGuire electrical system and VE system heaters determined that the same problem exists there. The licensee assessed potential solutions and determined that the problem could be mitigated for Unit 2 by reducing its VE system flowrate within its allowable range and monitoring the voltage at the 4160 volt bus to assure that the voltage at the VE heater terminal is maintained at or above 555 volts. This solution was not adequate for Unit 1, however, as the voltage available to its heaters is less and the required reduction in flowrate would, therefore, be excessive. Consequently, the licensee requested the TS changes identified above.

In support of its requested changes, the licensee provided the following discussion:

...we propose an emergency TS revision for McGuire Unit 1 which would change the testing standard for the VE system carbon to another, more restrictive, standard that is utilized for systems that don't have heaters for humidity reduction. Revising the carbon absorber test method will ensure the VE system filters maintain a decontamination efficiency of greater than or equal to 95% under all anticipated operating modes without use of the VE system heaters. Even though we would not be taking credit for the VE system heaters, the heaters would still remain in operation. While in operation, even under postulated degraded voltage, the relative humidity would not exceed approximately 85%.

In addition, and as a result of the carbon testing change, it is also necessary to change the existing TS for Unit 1 (4.6.1.8.d.5), regarding the VE system heaters power dissipation test. The existing TSs

require a VE system flow of 8000 cfm +/-10% and heat dissipation of 43 kW +/- 6.4. This value would be changed to 43 kW + 6.4 / -17.5. This limit is based on the consideration of a degraded voltage with a corresponding heater capacity decrease, and the entering air at 100% relative humidity and 122 degrees-F. With the heater capacity degraded by 17.5 kW (surveillance value converted to 600 volts), during a degraded voltage condition, the air entering the carbon filter would be approximately 85% relative humidity. This humidity is well below the 95% relative humidity specified by the proposed carbon test criteria, adding conservatism to the system operation.

As stated, the VE system heaters are provided to ensure the relative humidity of the air entering the VE carbon absorber beds is less than 70%. Under low voltage conditions, with the maximum TS allowed VE system flow rate of 8800 cfm, the relative humidity of the air entering the VE carbon absorber beds is postulated to exceed 70%. The proposed revision to the TS will also change the carbon absorber test method as described in Regulatory Guide 1.52 Rev 2, March 1978, Regulatory Position C.6.a to ensure the VE filters continue to have a decontamination efficiency of greater than or equal to 95% under all anticipated operating conditions.

The proposed standard, ASTM D 3803-86, "Test Method A" will require testing of carbon samples at 30 degrees-C and at 95% relative humidity for a carbon absorber bed decontamination efficiency of 95%. The methyl iodide penetration would be changed from 1% to 0.71%. Reducing the methyl iodide penetration to 0.71% ensures a carbon absorber decontamination factor of 95%, that is assumed in the existing McGuire FSAR Dose Analysis for the VE system. The proposed methyl iodide penetration of 0.71% instead of 1% also increases the penetration safety factor of the VE system from a factor of 5 to 7. The requirements of the new standard compensate for the reduced capacity of the VE system heaters as a result of the degraded voltage.

For the reasons described above, this change will conservatively ensure that calculated offsite and onsite doses are not adversely affected while allowing the existing 8000 cfm +/- 10% VE system flow rate.

The NRC staff has reviewed the licensee's proposed changes. We agree with the licensee that use of Test Method A as a supplement to Regulatory Guide 1.52 provides an adequate compensation for the reduced voltage to VE system heaters and provides reasonable assurance that the carbon efficiency will be maintained such that

potential onsite and offsite doses will not be increased relative to the efficiency and doses associated with existing TS requirements. Moreover, we find that the use of Test Method A as a supplement to Regulatory Guide 1.52, as proposed, meets General Design Criterion 42 and is consistent with the intent of the Standard Technical Specifications. The proposed changes are, therefore, acceptable.

The NRC is continuing to review the guidance of Regulatory Guide 1.52 for periodic updating, including its references to appropriate industry standards such as ASTM D 3803-86 and later versions of ASTM D 3803. We note that, like the current TS requirements, ASTM D 3803-86 Test Method A criteria do not address an equilibration period for testing samples from used carbon adsorbers. A later version, ASTM D 3803-89, published in February 1990, addresses this subject. Until the significance of an equilibration period during testing of used carbon samples is better understood and the staff's present review of Regulatory Guide 1.52 and associated standards is completed, we conclude that our approval of the proposed TS changes for McGuire Unit 1 should be limited in duration and should apply only until July 16, 1991, which is sufficient for about one 18-month inspection interval for the Unit 1 VE system required by TS 4.6.1.8.b. Thereafter the TSs for Unit 1 shall read the same as for Unit 2. We have appended a footnote to this end to the TS pages to be revised and have discussed this matter with the licensee.

3.0 FINDINGS OF EMERGENCY WARRANTING AN AMENDMENT WITHOUT NOTICE

The licensee's application for the TS change has been timely. In mid-April 1990 during a review of heating, ventilation and air conditioning systems at the Catawba Nuclear Station, the licensee discovered that the Catawba VE system heaters may not receive sufficient voltage under certain conditions to maintain the required relative humidity levels in air entering the carbon adsorber beds. On April 27, 1990, the licensee initiated a similar review of the McGuire VE system to determine if this problem existed. At the time, McGuire Unit 1 was completing a refueling outage and was scheduled to reach Mode 4 on May 11, 1990; Unit 2 was at full power. Following its initial review, the licensee's Design Engineering group requested on May 3, 1990, that additional performance data be acquired to determine actual operating conditions on McGuire Units 1 and 2 with respect to the postulated degraded grid voltage condition. From these results the licensee determined that Unit 2 could compensate for the lower heater voltage and heater dissipation by operating with a decreased VE system flowrate within the allowed tolerance, but that the Unit 1 VE system would be inoperable if additional actions could not be taken to raise flowrates to an acceptable level. The licensee assessed possible solutions to the problem, including adding an additional transformer to the power distribution system and replacing the VE system heaters with higher rated heaters. From this assessment the licensee

concluded that the need to acquire replacement parts and to reanalyze the reconfigured power distribution systems could not be accomplished without a significant delay to the Unit 1 restart. Thus, on Friday, on the evening of May 4, 1990, the licensee first realized that a TS change would be needed on an emergency basis to avoid substantial delays in the restart of Unit 1. Accordingly, on Monday morning, May 7, 1990, the licensee phoned the NRC to inform them of the situation and of the need for a prompt TS change. The verbal request was promptly followed by a written application for TS change on May 9, 1990.

The NRC staff agrees with the licensee that failure to grant the proposed TS changes in a timely manner would result in a significant increase in outage time for Unit 1. We also find that the licensee could not reasonably have avoided this situation, that the licensee has responded in a timely manner, and has not delayed its application to take advantage of the Emergency License Amendments provisions of 10 CFR 50.91. Accordingly, the staff concludes that the licensee has satisfied the requirements of 10 CFR 50.91(a)(5), and that a valid emergency exists.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's staff has reviewed the licensee's request for the above-described amendments in accordance with 10 CFR 50.92 and finds that should the changes to the TSs be implemented, they would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The VE system is an accident mitigation system only and has no causal effect on the occurrence of, and no effect on the probability of, an accident. The change to introduce a new dissipation voltage and testing standard does not alter the function of the system and the carbon efficiency remains the same as under the present TSs. Rather, the changes would assure that, in the event of low voltage conditions following an accident, the VE system carbon adsorbers would continue to function as designed at a decontamination efficiency of 95% at a relative humidity up to 95%. Therefore, the consequences of a previously evaluated accident would not increase.

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated. The changes do not introduce new or modified equipment, or increase plant operating and safety limits. No new failure modes would result. Therefore, no new or different kind of accident would be created.

(3) Involve a significant reduction in a margin of safety. The changes impose a more conservative carbon testing requirement to assure the existing VE carbon adsorber efficiency is maintained at 95%. Although credit for humidity reduction by the

VE system heaters at a reduced capacity was not included, the licensee states that the heaters would, under the postulated worst case accident and failure conditions, maintain the inlet air to the VE carbon bed at approximately 85% relative humidity; thereby, adding conservatism. The assumptions used in the safety analyses remain valid and unchanged. Therefore, the margin of safety associated with the existing TS would not be reduced.

Accordingly, the Commission finds that these changes do not involve a significant hazards consideration.

5.0 STATE CONSULTATION

The State of North Carolina was informed by telephone on May 11, 1990, of the NRC staff's no significant hazards consideration determination. The State representative had no comments on the determination.

6.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to the requirements with respect to installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that the amendments involve 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 NRC staff has made a final determination that the amendments involve no significant hazards consideration. Accordingly, the amendments meet 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 these amendments.

7.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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