

PLANT SYSTEMS

3/4.7.7 AUXILIARY BUILDING FILTERED VENTILATION EXHAUST SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.7 The Unit 1 and Unit 2 Auxiliary Building Filtered Ventilation Exhaust Systems shall be OPERABLE.

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

ACTION: (Units 1 and 2)

- a. With one Auxiliary Building Filtered Ventilation Exhaust System filter package inoperable, restore the inoperable filter 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.
- b. With one Auxiliary Building Filtered Ventilation Exhaust System flowpath inoperable (except carbon and HEPA filter package components and except as addressed by c.1 and c.2 below) restore the inoperable flowpath to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c.1 With one Auxiliary Building Filtered Ventilation Exhaust System able to maintain a negative pressure but unable to maintain 0.125" WG at the ECCS pump room relative to outside atmosphere, restore system ability to maintain 0.125" WG within the next 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c.2 With one Auxiliary Building Filtered Ventilation Exhaust System unable to maintain a negative pressure at the ECCS pump room relative to outside atmosphere, restore system ability to maintain a negative pressure within the next 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With both Unit 1 and Unit 2 Auxiliary Building Filtered Ventilation Exhaust Systems inoperable, restore at least one inoperable system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each unit's Auxiliary Building Filtered Ventilation Exhaust System filter package shall be demonstrated OPERABLE:

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

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Amendment No. 113 (Unit 1)  
Amendment No. 95 (Unit 2)

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### 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 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 45,700 cfm  $\pm$  10% (both fans operating - Unit 1) or 40,500 cfm  $\pm$  10% (both fans operating - Unit 2);
  - (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 an acceptance criteria for methyl iodide penetration of ~~90%~~ <sup>less than 10%</sup> at 30°C test temperature, and
    - b. After every 1440 hours of carbon 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 an acceptance criteria for methyl iodide penetration of ~~90%~~ <sup>less than 10%</sup> at 30°C test temperature, and
    - c. At least once per 18 months, by verifying that the pressure drop across the combined HEPA filters and carbon adsorber banks of less than 6 inches Water Gauge while operating the system at a flow rate of 45,700 cfm  $\pm$  10% (both fans operating - Unit 1) or 40,500 cfm  $\pm$  10% (both fans operating - Unit 2), and
    - d. 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 criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 45,700 cfm  $\pm$  10% (both fans operating - Unit 1); or 40,500 cfm  $\pm$  10% (both fans operating - Unit 2); and
    - e. After each complete or partial replacement of a carbon adsorber bank, by verifying that the carbon adsorber satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 45,700 cfm  $\pm$  10% (both fans operating - Unit 1) or 40,500 cfm  $\pm$  10% (both fans operating - Unit 2).
- 4.7.7.2 Each Unit's Auxiliary Building Filtered Ventilation Exhaust System flowpath shall be demonstrated OPERABLE:
- a. At least once per 31 days, by initiating, from the control room, flow through the HEPA filters and carbon adsorbers and verifying that the system operates for at least 15 minutes.
  - b. At least once per 18 months, or (1) after any structural maintenance on the HEPA filter or carbon adsorber housings, or (2) following

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SURVEILLANCE REQUIREMENTS (Continued)

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painting, fire, or chemical release in any ventilation zone communicating with the system, by verifying a system flow rate of 45,700 cfm  $\pm$  10% (both fans operating - Unit 1) or 40,500 cfm  $\pm$  10% (both fans operating - Unit 2) during system operation when tested in accordance with ANSI N510-1980.

- c. At least once per 18 months, by verifying that the system starts on a Safety Injection test signal and directs its exhaust flow through the HEPA filters and carbon adsorbers.

4.7.7.3 Each Unit's Auxiliary Building Filtered Ventilation Exhaust System shall be demonstrated OPERABLE, at least once per 18 months, by verifying that the system maintains the ECCS pump room at a negative pressure relative to outside atmosphere.

## ATTACHMENT 2

### Description of Proposed Changes, Justification, and Safety Analysis

#### PROPOSED CHANGES

The current wording for this Technical Specification (TS) is incorrect. The intention of this change is to correctly reflect the test acceptance criteria that the NRC staff approved and documented in the Safety Evaluation Report (SER) for Amendment No. 113 and No. 95 to Facility Operating Licenses NPF-9 and NPF-17, respectively, on September 12, 1990.

#### JUSTIFICATION

The staff found (as Duke indicated in the October 15, 1987 submittal justification) that the proposed acceptance criterion of less than 10% methyl iodide penetration (corresponding to a methyl iodide removal efficiency greater than 90%) is consistent with filter efficiencies assigned by the staff for its independent calculations of offsite dose.

The TS wording error occurred when Duke's proposed change stated, "...meets an acceptance criteria for methyl iodide penetration of 90% at 30° C test temperature,..." . A 10% methyl iodide penetration is synonymous with a methyl iodide removal efficiency of 90%. The proposal would have been accurately worded if stated, "...methyl iodide removal efficiency of more than 90%..." or "...methyl iodide penetration of less than 10%..." .

#### SAFETY ANALYSIS

Compliance with the test acceptance criteria as it is presently worded in the Tech Spec would be irresponsible. Most (90%), of the methyl iodide admitted into this filter system could pass through. The Tech Spec change to match with the testing procedure would allow less than 10% methyl iodide to pass through.

The environmental considerations of effluent and personnel exposure were considered and confirmed acceptable in the Amendment No. 113 and No. 95 in the Facility Operating Licenses NPF-9 and NPF-17, respectively on September 12, 1990.

Duke Power, therefore, concludes that this proposed change to TS Surveillances 4.7.7.1(a)(2) and 4.7.7.1(b) has been, and is currently, technically justified.

ATTACHMENT 3

SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

The following analysis is provided, in accordance with 10 CFR 50.91, to determine whether or not the proposed change will involve significant hazards consideration. This determination will be made using the criteria of 10 CFR 50.92.

The NRC has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists by providing certain examples (48 FR 14870) of amendments that are considered not likely to involve significant hazards consideration.

Example (i) relates to a purely administrative change to Technical Specifications: for example, a change to achieve consistency throughout the Technical Specifications, correction of an error, or a change in nomenclature. Example (i) above is applied in this case. As discussed in the Technical Justification (Attachment 2), the reason for the technical specification change is to correct an error.

(1) The proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS change from 90% to less than 10% for methyl iodide penetration acceptance criterion is more conservative and is consistent with the licensing basis. This amendment corrects a typographical error and does not alter the basis of the previously NRC approved design. This administrative change itself is not considered to be an initiator or a contributor to any previously evaluated accidents. Therefore there is no increase in the probability or consequences of an accident previously evaluated.

(2) The proposed amendment would not create the possibility of a new or different kind of accident not previously evaluated.

The Auxiliary Building Filtered Ventilation Exhaust system is an accident mitigation system and the proposed change merely corrects a typographical error in the Tech Spec Surveillance test criterion. There is no change to structures, systems, components, or operating procedures. Therefore, this change can not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) No significant reduction in a margin of safety will occur.

The revised acceptance values of the testing procedures continue to assure operability of the carbon filter as originally intended in the September 12, 1990 Staff SER. This is an administrative change to correct a typographical error, therefore the margin of safety is not impacted. Note: The station's administrative acceptance criterion for methyl iodide penetration has been the proper amount (10%) since issuance of the previous license amendment containing the error (September 12, 1990).

Based on the above, Duke Power concludes that this amendment request does not involve significant hazards as defined by 10 CFR 50.92.