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Docket Nos. 50-250
and 50-251

NRC PDR
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M. Grotenhuis
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Dr. Robert E. Uhrig, Vice President
Advanced Systems and Technology
Florida Power and Light Company
Post Office Box 529100
Miami, Florida 33152

Dear Dr. Uhrig:

On December 10, 1974, we requested that you submit proposed Technical Specifications related to the installed filter systems for the Turkey Point Plant Unit Nos. 3 and 4. You responded on January 30, 1975; however, this proposal was superceded by a submittal dated May 3, 1976. The latter submittal was revised by a submittal dated June 9, 1977.

We have had conference calls with your staff and have transmitted informal comments and responses. The enclosures represent the latest revision to your proposed Technical Specifications as agreed to by your staff in conference calls on November 16 and 18, 1981.

Enclosure 1 represents a revision to LCO 3.4.3 Emergency Containment Filtering System (p. 3.4-4) of your Technical Specifications. Enclosure 1 also includes two additional LCO's, Post Accident Containment Vent Systems and Control Room Ventilation System. These changes to the LCO's are necessary to properly define the operability of your ESF filter systems.

Enclosure 2 is a marked up copy of draft surveillance requirements which were submitted informally to respond to staff comments.

Please revise your June 9, 1977 submittal to be consistent with the enclosures to this letter and submit it within 30 days of your receipt of this letter.

Sincerely,

Original Signed By:

Mr. Grotenhuis

Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Enclosures:
As stated

cc: See next page

OFFICE	ORB 1	ORB 1					
SURNAME	MGrotenhuis/rs	SVarga					
DATE	11/20/81	11/20/81					

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Robert E. Uhrig
Florida Power and Light Company

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- 1. ONE emergency containment cooling unit may be out of service for a period of 24 hours. Prior to initiating maintenance the other TWO units shall be tested to demonstrate operability.
- 2. ONE containment spray pump may be out of service provided it is restored to operable status within 24 hours. The remaining containment spray pump shall be tested to demonstrate operability before initiating maintenance on the inoperable pump.
- 3. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves that provide the duplicate function shall be tested to demonstrate operability.

LCO → 3. EMERGENCY CONTAINMENT FILTERING SYSTEM

- a. The reactor shall not be made critical, except for low power physics tests unless:
 - 1. THREE emergency containment filtering units are operable.
 - 2. All valves, interlocks and piping associated with the above components and required for post-accident operation, are operable.
- b. During power operation:
 - 1. ONE unit may be inoperable for a period of ^{7 days} 24 hours if the other TWO are operable.
 - 2. Any valve in the system may be inoperable provided repairs are completed within ^{7 days} 24 hours. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
 - 3. *If after 7 days the unit is still inoperable*
Specification 3.0.1 applies to ~~3.4.3.b~~ *skt*

4. COMPONENT COOLING SYSTEM

- a. The reactor shall not be made critical, except for low power physics tests, unless the following conditions are met:



Add Specification 3X.X.b and 3X.Y.b to Specification 3.0.1

3.X.X Post Accident Containment Vent System

- a. The reactor shall not be made critical, except for low power physics tests unless:
 1. The post accident containment vent system is operable.
 2. All valves, interlocks, and piping associated with the above components and required for post-accident operation are operable.
- b. During power operation:
 1. One unit may be inoperable for a period of 7 days.
 2. Any valve in the system may be inoperable provided repairs are completed within 7 days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
 3. If after 7 days the Unit is still inoperable, Specification 3.0.1 applies to 3.X.X.b.



Add Specification 3X.X.B. and 3X.Y.B. to Specification 3.0.1

3.X.Y Control Room Ventilation.

- a. The reactor shall not be made critical, except for low power physics tests unless:
 1. The post accident containment vent system is operable.
 2. All valves, interlocks, and piping associated with the above components and required for post-accident operation are operable.
- b. During power operation:
 1. One unit may be inoperable for a period of 7 days.
 2. Any valve in the system may be inoperable provided repairs are completed within 7 days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
 3. If after 7 days the Unit is still inoperable, Specification 3.0.1 applies to 3.X.Y.b.



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4.7 EMERGENCY CONTAINMENT FILTER SYSTEM, POST ACCIDENT CONTAINMENT VENT SYSTEM, AND CONTROL ROOM VENTILATION SYSTEM.

JUN 26 1980

M. GROTENHUIS

Applicability: Applies to the Emergency Containment Filter System, the Post Accident Containment Vent System, and the Control Room Ventilation System.

Objectives: To verify that these systems and their components will be able to perform their design functions.

In the event that painting, fire, or chemical release occurs such that the filters are exposed to the effluents of these events, the system will be tested to verify its performance of design features.

Specification: 1. EMERGENCY CONTAINMENT FILTERING SYSTEM

1. Operating Tests

System tests shall be performed once per operating cycle or once per 18 months, whichever comes first. The tests shall consist of pressure drop and flow measurements across all filters^{banks} in the plenum. Less than 6" of water pressure drop at design flow (37,500 cfm \pm 10%) across the combined HEPA filters and charcoal adsorbers shall constitute acceptable performance. *Visual inspection shall include search for any foreign material and gasket deterioration to the HEPA filters and charcoal adsorbers.*

4.7-1



Once per operating cycle, each unit of the Emergency Containment Filtering System shall be tested to demonstrate automatic initiation upon receipt of a Safety Injection signal. Each unit of the Emergency Containment Filtering System shall be operated monthly for at least 15 minutes ^{on a staggered basis} to demonstrate operability.

2. Performance Tests

A visual inspection shall be made before each in-place air flow distribution test, DOP test or halogenated leak test.

- a. At least once per 18 months or after every 720 hours of system operation, in-place DOP and halogenated hydrocarbon tests at design flow (37,500 cfm \pm 10%) and carbon analysis for each Emergency Containment Filter plenum shall be performed. In addition, ^{carbon analysis and} in-place DOP, and halogenated hydrocarbon tests at design flow (37,500 cfm \pm 10%) shall be performed after (1) any structural maintenance on system housings, ~~(2) after~~ ^{testing} which might have affected filter bank efficiency, ~~(3)~~ ² after complete or partial replacement of a filter bank, or ~~(4)~~ ³ after ^{operational} exposure of the filters to effluents from painting, fire, or chemical release. ~~In addition, carbon analysis shall be performed~~

~~after exposure of the filters to effluents from painting, fire, or chemical release.~~

Removal of $\geq 99\%$ DOP and $\geq 99\%$ halogenated hydrocarbon shall constitute acceptable performance. Fans shall operate at design flow (37,500 cfm $\pm 10\%$). The charcoal surveillance specimen from one of the emergency containment filters shall show $\geq 99.9\%$ removal efficiency for elemental

iodine. Failing this, the charcoal shall be replaced with charcoal which meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52 (Revision 2).

Samples will be taken in accordance with position C.6.b. of Regulatory Guide 1.52. Carbon analysis will be performed in accordance with ANSI NS10-1975. Analysis shall verify the above removal efficiency for elemental iodine within 45 days after removal of the sample.

b. An air distribution test shall be performed at design flow (37,500 cfm $\pm 10\%$) at least once, ^{after maintenance affecting flow distribution} and thereafter ~~only if there is~~ ~~indication that the air distribution has~~ ~~changed.~~

c. Flow rate should be verified following maintenance to HEPA or charcoal housing, or following painting or chemical release in any ventilation zone, while the system is operational and once each 18 months.

2. POST ACCIDENT CONTAINMENT VENT SYSTEM

1. Operating Tests

during refueling but not longer than 18 months.

Operating tests shall be performed annually. The tests shall consist of visual inspection of the system, operation of all valves, and pressure



drop and air flow measurements. Visual inspection shall include search for any foreign materials and gasket deterioration in the HEPA filters and charcoal adsorbers. Less than 6" of water pressure drop at 55 cfm flow shall constitute acceptable performance.

2. Performance Tests

A visual inspection of the system shall be made before each DOP test, halogenated hydrocarbon leak test, and upon completion of the above tests when the system is installed in its operational status in the auxiliary building.

- a. At least once per 18 months or after 720 hours of system operation, in-place DOP and halogenated hydrocarbon tests at design flow (55 cfm \pm 10%) and carbon analysis, or carbon replacement, for the Post Accident Containment Vent filters shall be performed. In addition, ^{carbon analysis (or carbon replacement)} in-place DOP and halogenated hydrocarbon tests at design flow (55 cfm \pm 10%) shall be performed after (1) any structural maintenance on system housings, (2) ~~after testing~~ which might have affected filter bank efficiency, (3) after complete or partial replacement of a filter bank, or (4) after exposure of the filters to effluents from painting, fire, or chemical release. Removal of \geq 99% DOP and \geq 99% halogenated hydrocarbon shall constitute acceptable performance.



b. ~~Carbon analysis, or carbon replacement, shall be performed after exposure of the filters to effluents from painting, fire, or chemical release.~~ Laboratory carbon sample analysis shall show ^{90% methyl radio-} ~~> 99.9% elemental~~ iodine removal or the charcoal shall be replaced with charcoal that meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52

Sample shall be taken in accordance with position C.6.b of Regulatory Guide 1.52. Carbon analysis shall be performed in accordance with ANSI NS10-1975. Analysis shall verify the above removal efficiency for methyl radioiodine within 45 days after removal of the sample.

(Revision 2). λ

c. The hydrogen concentration measurement instrument shall be calibrated with proper consideration for humidity.

3. CONTROL ROOM VENTILATION (EMERGENCY INTERNAL CLEANUP) SYSTEM

1. Operating Tests

Visual inspection shall be made before each in-place DOP test, hydrogenated hydrocarbon leak test, and airflow distribution test.

The Control Room Ventilation System shall be operated monthly for at least 15 minutes to demonstrate operability. Auto initiation of the systems operations shall be checked ^{during refueling, but not} annually longer than 18 months.



Pressure drop measurements across the filter bank shall be made annually. Less than 6" of water pressure drop at designed flow (1,000 cfm \pm 10%) across the combined HEPA filter and charcoal adsorbers shall constitute acceptable

performance. A visual inspection shall include a search for any foreign materials and gasket deterioration in the HEPA filters and charcoal adsorbers.

2. Performance Tests

A visual inspection shall be made before each in-place DOP test, halogenated hydrocarbon leak test, and airflow distribution test.

- a. At least once per 18 months or after every 720 hours of system operation, in-place DOP and halogenated hydrocarbon tests at design flow (1,000 cfm \pm 10%) and carbon analysis shall be performed. In addition, ^{carbon analysis (or carbon replacement)} in-place DOP and halogenated hydrocarbon tests at design flow (1,000 cfm \pm 10%) shall be performed after (1) any structural maintenance on system housings, ~~(2) after testing~~ which might have affected filter bank efficiency, ⁽²⁾ ~~(3)~~ after complete or partial replacement of a filter bank, or ⁽³⁾ ~~(4)~~ after ^{operational} exposure of the filters to effluents from painting, fire, or chemical release. ~~In addition, carbon analysis shall be performed~~



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~~after exposure of the filters to effluents from painting, fire, or chemical release.~~

Removal of $\geq 99\%$ DOP and $\geq 99\%$ halogenated hydrocarbon shall constitute acceptable performance.

- b. A charcoal surveillance specimen from one of the charcoal adsorbers shall be removed and analyzed for ^{methyl radio} elemental iodide removal capability. The results of the laboratory carbon sample analysis shall show ^{90%} $\geq 99-9\%$ ^{radio iodine} removal efficiency. Failing this, the charcoal shall be replaced with charcoal which meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52 (Revision 2).

Samples shall be taken in accordance with position C.6.b of Regulatory Guide 1.52. Carbon analysis shall be performed in accordance with ANSI NS10-1975. Analysis shall verify the above removal efficiency for methyl radio iodine within 45 days after removal of the sample.

- c. System flow rate should be verified once each 18 months, following maintenance to HEPA or charcoal housings, or fire, or chemical release in any ventilation zone while the system is operational.



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B4.7 BASES FOR EMERGENCY CONTAINMENT FILTERING SYSTEM, POST ACCIDENT CONTAINMENT VENT SYSTEM, AND CONTROL ROOM VENTILATION SYSTEM.

System components are not subject to rapid deterioration, having lifetimes of many years, even under continuous flow conditions. Visual inspection and operating tests provide assurance of system reliability and will insure early detection of conditions which could cause the system to fail or operate improperly. The performance tests prove conclusively that filters have been properly installed, that no deterioration or damage has occurred, and that all components and subsystems operate properly. The tests are performed in accordance with the methodology and intent of ANSI 510 (1975) and provide assurance that filter performance has not deteriorated below required specification values due to aging, contamination, or other effects:

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