FPL

NOV 23 1999

L-99-239
10 CFR §50.90

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Proposed License Amendments
Laboratory Testing of Nuclear Grade Activated Charcoal

In accordance with 10 CFR §50.90, Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to modify Technical Specification (TS) 3/4.6.3, Emergency Containment Filtering System, TS 3/4.6.6, Post Accident Containment Vent System, and TS 3/4.7.5, Control Room Emergency Ventilation System. The proposed license amendments request that charcoal samples from these filter units be tested in accordance with the American Society for Testing and Materials (ASTM) Standard D3803-1989, Standard Test Method for Nuclear-Grade Activated Carbon.

The proposed license amendments are submitted in response to Generic Letter (GL) 99-02, Laboratory Testing of Nuclear-Grade Activated Charcoal, which requires that ASTM D3803-1989 be used for testing both new and used charcoal in engineered safety feature (ESF) applications. A description of the amendments request is provided in Attachment 1. FPL has determined that the proposed license amendments do not involve a significant hazards consideration pursuant to 10 CFR §50.92. The no significant hazards determination in support of the proposed TS changes is provided in Attachment 2. Attachment 3 provides the proposed revised TS pages.

The next laboratory surveillance test for Engineered Safety Feature (ESF) charcoal filters at Turkey Point is required to be performed in March of 2000. Assuming the proposed amendments are approved or specific enforcement discretion is granted prior to that time, FPL will conduct the charcoal surveillance tests in accordance with ASTM D3803-1989. Any replacement charcoal will also meet the 1989 ASTM standard. FPL is therefore requesting the approval of these amendments by February 14, 2000, to support this schedule.

GL 99-02 states that the Staff will exercise enforcement discretion for licensees in Group 2 to eliminate unnecessary testing of charcoal samples to both ASTM D3803-1989 and the current TS testing protocol during the period of the time between issuance of the GL and approval of the TS amendment. According to the terms of GL 99-02, Turkey Point is a Group 2 plant. In the event that the Staff does not approve the proposed license amendments by February 14, 2000, FPL hereby requests the Staff to issue a notice of enforcement discretion that excuses FPL from performing charcoal testing using the current TS testing protocol and that permits FPL to test charcoal samples using the ASTM D3803-1989 standard in accordance with the acceptance criteria presented in this submittal.

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In accordance with 10 CFR §50.91(b), a copy of the proposed license amendment is being forwarded to the State Designee for the State of Florida.

The proposed license amendments have been reviewed by the Turkey Point Plant Nuclear Safety Committee and the FPL Company Nuclear Review Board.

Should there be any questions, please contact us.

Very truly yours,

R. J. Hovey
Vice President
Turkey Point Plant

SM/MG

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
Florida Department of Health and Rehabilitative Services

L-99-239

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STATE OF FLORIDA)
) ss.
COUNTY OF MIAMI-DADE)

R. J. Hovey being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Plant, of Florida Power and Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

R. J. Hovey

Subscribed and sworn to before me this
22nd day of November 1999.

Cheryl A. Stevenson

Name of Notary Public (Type or Print)

CHERYL A. STEVENSON
MY COMMISSION # CC 664017
EXPIRES: June 19, 2000
Bonded Thru Notary Public Underwriters

R. J. Hovey is personally known to me.

ATTACHMENT 1

DESCRIPTION OF AMENDMENTS REQUEST

1.0 Background and Purpose

Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to modify Technical Specification (TS) 3/4.6.3, Emergency Containment Filtering System, TS 3/4.6.6, Post Accident Containment Vent System, and TS 3/4.7.5, Control Room Emergency Ventilation System in response to Generic Letter (GL) 99-02. GL 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999, requests that licensees of operating power reactors amend their TS to reference either the American Society for Testing and Materials (ASTM) Standard D3803-1989, "Standard Test Method for Nuclear–Grade Activated Carbon," or propose an alternate test protocol.

Periodic laboratory analysis of activated charcoal used in the engineered safety features (ESF) ventilation systems of nuclear power plants is required to verify its ability to remove radioiodine from air during normal operation and during postulated accident conditions. Difficulty in achieving accurate and consistent test results has been a long-standing issue with the NRC and the nuclear industry due to the sensitivity of the adsorption mechanism to variations in the process conditions. Interlaboratory comparisons conducted since the early 1980's have demonstrated that the results for these analyses can vary significantly between the various testing laboratories. This disparity has raised concerns regarding the adequacy of these analyses and the specifications used to interpret their results. The NRC staff considers the ASTM D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in ESF ventilation systems because it offers the greatest assurance of accurately and consistently determining the capability of the charcoal. The staff considers that the ASTM D3803-1989 standard provides a consistent and reproducible test method for evaluating the adequacy of charcoal.

The purpose of the proposed license amendments is to adopt ASTM D3803-1989 as the protocol for conducting laboratory tests on both new and used charcoal in the emergency containment, post accident containment vent, and control room emergency ventilation system filtering units which are the affected filter units at Turkey Point.

2.0 System Description

The filter units affected by the proposed TS changes include the emergency containment filters, control room emergency ventilation filters, and the post accident containment ventilation filter.

Emergency Containment Filters (ECFs)

Each reactor at Turkey Point is provided with three ECF units located inside containment. Each unit contains a demister bank, a high efficiency particulate air (HEPA) filter bank, a charcoal filter bank and a fan. The charcoal filter bank in each ECF is comprised of 112 standard Type II tray-type adsorber cells having a nominal face velocity of 40 feet per minute (fpm) and a gas residence time of 0.25 seconds when operated at the design volumetric air flow rate of 333 cubic feet per minute (cfm). The filter units are designed to draw air from the lower levels of containment during an accident and discharge it to the upper regions of the containment building. They were installed to reduce the iodine concentration in the containment atmosphere following a maximum hypothetical accident (MHA) such that the offsite dose at the site boundary would not exceed 10 CFR 100 guidelines.

The air filtering capacity used to satisfy the design basis is determined from the following conditions:

a) Postulated iodine release to the containment is calculated with the ORIGEN2 code using TID 14844 release fractions at a power level of 2346 MW_t, based on the equilibrium fission product inventory from a 24 GWD/MTU, two region, equilibrium cycle.

b) Twenty-five percent of the total core iodine inventory is available for leakage from the containment. This assumes 50% of the total core iodine is released to containment and 50% of this activity immediately plates out on the containment walls.

c) The containment leak-rate for the first 24 hours is 0.25% per day and 0.125% per day thereafter.

d) The iodine in the containment atmosphere is assumed to be comprised of 4% methyl iodide, 91% elemental iodine and 5% particulate iodine.

Operation of two ECFs for 2 hours is credited in the offsite and control room dose analyses associated with the large break Loss of Coolant Accident (LOCA). A removal efficiency of 90% is assumed for elemental iodine. The removal efficiency for methyl iodide is assumed to be 30%.

Operation of the ECFs is also credited in the offsite dose calculation associated with a control rod ejection accident.

Control Room Emergency Ventilation Filters

The control room HVAC charcoal filters are located in the common emergency air intake duct. They are placed into service upon detection of high radioactivity in the normal control room HVAC air intake path. The high radioactivity signal causes isolation dampers in the normal intake duct to close and isolation dampers in the emergency air intake duct to open. An air supply fan draws a limited quantity of outside air through the charcoal filters along with air recirculated from the control room to maintain positive pressure in the control room envelope. The charcoal filter bank is comprised of 3 Type II tray-type adsorber cells to accommodate the 1000 cfm control room HVAC design flow.

Operation of the control room emergency ventilation system is credited in the dose analysis associated with the large break LOCA. A removal efficiency of 95% is assumed for both elemental iodine and methyl iodide in the dose analysis.

Post Accident Containment Ventilation (PACV) Filter

Turkey Point uses a common post accident containment vent system to facilitate controlled venting of either reactor containment building through HEPA and charcoal filters to the waste gas tanks and to the atmosphere during post-accident conditions. The system provides the primary means of controlling containment hydrogen concentration during accidents and is placed in service when the containment hydrogen concentration reaches 3.0 volume percent. Service air is used to establish a low containment pressure under these conditions and enables a controlled flow rate to be maintained through the vent and vent filters. The design flow rate for the PACV system is 55 cfm.

The PACV system uses a standard 12" x 12" x 5 ⅞" charcoal filter in a bag-in/bag-out type housing. The filter is a Type IV charcoal adsorber bank containing 8 1-inch thick charcoal beds arranged in a V-Bank configuration. The filter has a nominal face velocity of 14 fpm and a gas residence time of 0.35 seconds at the 55 cfm PACV design flow rate.

3.0 Current Technical Specification Requirements

TS 3.6.3 requires that three emergency containment filtering units (ECFs) be operable in Modes 1, 2, 3, and 4. If one of the required ECFs become inoperable, it must be returned to operable status within 7 days or the plant must be brought to hot standby conditions within the next 6 hours and to cold shutdown conditions within the following 30 hours. Various surveillance requirements are listed in Section 4.6.3 of the TS to demonstrate filter unit operability. Surveillance requirement 4.6.3b.2 specifies the charcoal testing that must be performed to demonstrate operability. Testing is required at least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following operational exposure of filters to effluents from painting, fire, or chemical release or (3) after every 720 hours of system operation. The test requires verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with applicable portions of Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and performed in accordance with ANSI N-510-1975, meets the acceptance criteria of greater than 99.9% removal of elemental iodine; and that any charcoal failing to meet this criteria be replaced with charcoal that meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52, Revision 2.

TS 3/4.7.5 requires that the control room emergency ventilation system be operable in all plant operating modes. If the system becomes inoperable in Modes 1, 2, 3, or 4, all movement of fuel in the spent fuel pool must be suspended and the system must be restored to operable status within 84 hours. If the system can not be restored to operable status within the 84-hour limit, the plant must be brought to hot standby conditions within the next 6 hours and to cold shutdown conditions within the following 30 hours. If the action applies to both units simultaneously, the units must be brought to hot standby conditions within 12 hours and to cold shutdown conditions within the following 30 hours.

If the control room emergency ventilation system becomes inoperable in Modes 5 or 6, all operations involving core alteration, movement of fuel in the spent fuel pool, or positive reactivity changes, must be suspended. This action applies to both units simultaneously.

TS 3/4.7.5 describes the various surveillance tests that must be performed to demonstrate operability of the control room emergency ventilation system. Surveillance requirement 4.7.5c specifies the charcoal testing that must be performed to demonstrate operability. Testing is required at least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following operational exposure of filters to effluents from painting, fire, or chemical release or (3) after every 720 hours of system operation. TS surveillance requirement 4.7.5c.2 requires 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, and performed in accordance with ANSI N-510-1975, meets the acceptance criteria for methyl iodide removal efficiency of greater than or equal to 99% or the charcoal be replaced with charcoal that meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52, Revision 2.

TS 3/4.6.6 requires that the post accident containment vent (PACV) system be operable in Modes 1 and 2. If the PACV system becomes inoperable, it must be returned to operable status within 7 days or the plant must be brought to hot standby conditions within 6 hours. TS surveillance requirement 4.6.6b specifies the charcoal testing that must be performed to demonstrate operability. Testing is required at least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following operational exposure of filters to effluents from painting, fire, or chemical release or (3) after every 720 hours of system operation or (4) after replacement of a filter. TS surveillance requirement 4.6.6b.2 requires verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample performed in accordance with ANSI N-510-1975, meets the methyl iodide removal criteria of greater than or equal to 90% and that any charcoal failing to meet the criteria be replaced with charcoal that meets or exceeds the criteria of position C.6.a of Regulatory Guide 1.52, Revision 2.

4.0 Design Basis Requirements and Safety Analysis Impact

The ECFs, control room emergency ventilation filter, and PACV filter were included as engineered safety features at Turkey Point to mitigate the consequences of postulated accidents by removing radioactive material from the containment and control room atmospheres. The charcoal filters were specifically installed to remove radioactive iodine and methyl iodide from these locations and maintain post-accident doses within regulatory limits.

The design basis of the ECFs is to provide sufficient iodine removal capability from the containment atmosphere during radiological accidents to maintain offsite doses within 10 CFR 100 limits and control room doses within limits specified in Criterion 19, "Control Room," of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR 50. The large break Loss of Coolant Accident (LOCA) is the most limiting design basis event for the ECFs. The amount of iodine released to the containment during a design basis LOCA is based on the assumptions provided in Atomic Energy Commission Technical Information Document TID-14844. The capacity of the system is such that the released iodine can be adsorbed by two of the three ECF Units. The operation of two ECFs is credited in the offsite and control room dose analyses associated with:

a) Large break Loss of Coolant Accident, and
b) Control Rod Ejection Accident.

A removal efficiency of 90% is assumed for elemental iodine in these analyses. The removal efficiency for methyl iodide is assumed to be 30%. These removal efficiencies are based on the guidance that is provided in Table 2 of Regulatory Guide 1.52 for 2-inch thick charcoal beds designed to operate inside containment.

The design basis of the control room emergency ventilation system is to mitigate the consequences of an accident by ensuring that the control room will remain habitable during and following all credible accident conditions. General Design Criterion 19, "Control Room," contains the dose limits that must be met by the system during radiological accidents. Operation of the control room emergency ventilation system is credited in the dose analysis associated with a large break LOCA. A removal efficiency of 95% is assumed for both elemental iodine and methyl iodide in the analysis.

The PACV system is not specifically modeled in any of the plant safety analyses. A methyl iodide removal efficiency of 90%, however, is referenced in the TS for surveillance testing purposes. The requirement was added to the TS in the early 1980's and was derived from the Westinghouse standard TS that were in place in the mid-1970's.

The adoption of ASTM D3803-1989 for laboratory analysis of the above charcoal filters does not impact the design bases of the ESF systems, alter post-accident source terms, or modify the removal efficiencies credited in the dose calculations. Although the Turkey Point accident analyses credit both elemental iodine and methyl iodide retention in the ESF filtration systems, the ASTM standard only provides a measurement of the charcoal's ability to retain methyl iodide. Testing charcoal solely for methyl iodide retention, however, is considered to provide a valid measure of the charcoal's ability to remove radioiodine in any chemical form from the attendant plant gas stream. Supplemental testing for elemental iodine retention is

not considered necessary to verify the charcoal's ability to fulfill its design basis function. This position is bolstered by the NRC contention that elemental iodine released to the containment atmosphere will be aggressively removed through the use of the containment spray system such that the only form of iodine anticipated to require treatment by the ESF charcoal filters is methyl iodide. Additionally, an elemental iodine test protocol that provides reliable and reproducible results, and provides the ability to adequately discriminate between good and bad charcoal, has not been endorsed by the NRC.

Based on the above, the proposed changes in test method and acceptance criteria do not impact the plant safety analyses.

5.0 Technical Specification Change Request

The following changes to TS Surveillance Requirements 4.6.3b.2, 4.7.5c.2, and 4.6.6b.2 are requested for Turkey Point Units 3 and 4. Text deletions are shown in strikeout. Proposed text additions are shown in **bold**:

a) TS 3/4.6.3, Emergency Containment Filtering System:
Revise the SURVEILLANCE REQUIREMENT 4.6.3b.2 to read as follows:

"Verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with applicable portions of Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and performed in accordance with ~~ANSI N-510-1975, meets the acceptance criteria of greater than 99.9% removal of elemental iodine~~ **ASTM D3803-1989 at 30 °C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 35%**; and that any charcoal failing to meet this criteria be replaced with charcoal that meets or exceeds the ~~criteria of position C.6.a of Regulatory Guide 1.52, Rev. 2~~ **stated performance requirement**; and"

Justification:

The requested change updates the surveillance requirement to reflect the charcoal test standard imposed by GL 99-02. Since the new test standard is based on methyl iodide penetration rather than elemental iodine removal efficiency, a conforming change is made to reflect the appropriate test agent. This includes a change in the test acceptance criteria due to the change in the parameter used to measure filter effectiveness. The existing TS measured the charcoal filter decontamination efficiency, which is a measure, in percent, of the ability of an adsorbent to remove a specific contaminant gas from an air, or gas stream under specified conditions. The proposed TS provides acceptance criteria in terms of penetration. Filter penetration represents the amount of leakage through or around, an adsorber when tested with a challenge agent of known characteristics under known conditions. Filter penetration is expressed as a percentage of the initial challenge agent concentration. The following mathematical formula for determining the appropriate penetration acceptance criteria is provided in Enclosure 2 of the GL.

$$\text{Allowable Penetration} = \frac{[100\% - \text{Methyl Iodide Efficiency in Plant Safety Analysis}]}{\text{Safety Factor}}$$

The GL enclosure notes that the staff will accept a safety factor of greater than or equal to 2 when ASTM D3803-1989 is used with 30 °C (86 °F) and 95% relative humidity (or 70% relative humidity with humidity control). Given that a methyl iodide removal efficiency of 30% was assumed for the ECFs in the LOCA and control room dose analyses, an allowable methyl iodide penetration of less than 35% has been established for the surveillance test.

The ASTM standard does not include provisions for measuring the charcoal removal efficiency for elemental iodine. Consequently, any previous commitments relative to elemental iodine testing are superseded by the adoption of ASTM D3803-1989.

b) TS 3/4.7.5, Control Room Emergency Ventilation System:
Revise SURVEILLANCE REQUIREMENT 4.7.5c.2 to read as follows:

"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, and analyzed per ~~ANSI N 510-1975, meets the criteria for methyl iodine removal efficiency of greater or equal to 99%~~ **ASTM D3803-1989 at 30 °C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 2.5%** or the charcoal be replaced with charcoal that meets or exceeds the **stated performance requirement** ~~criteria of position C.6.a. of Regulatory Guide 1.52 (Revision 2)~~, and"

Justification:

The requested change updates the surveillance requirement to reflect the charcoal test standard imposed by GL 99-02. Since the new test standard is based on methyl iodide penetration rather than methyl iodide removal, a conforming change is made to reflect the appropriate test acceptance criteria. A maximum allowable penetration of 2.5% is established for the control room emergency filters using the equation referenced in part a) above, and a methyl iodide removal efficiency of 95% as assumed in the safety analysis. Performing the charcoal test at a relative humidity of 95% will bound all moisture conditions expected in the filter inlet air stream.

c) TS 3/4.6.6, Post Accident Containment Vent System:
Revise SURVEILLANCE REQUIREMENT 4.6.6b.2 to read as follows:

"Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample performed in accordance with ~~ANSI N-510-1975, meets the methyl iodine removal criteria of greater than or equal to 90%~~ **ASTM D3803-1989 at 30 °C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 10%** and that any charcoal failing to meet the criteria be replaced with charcoal that meets or exceeds the **stated performance requirement** ~~criteria of Position C.6.a. of Regulatory Guide 1.52, Revision 2~~."

Justification:

The requested change updates the surveillance requirement to reflect the charcoal test standard imposed by GL 99-02. Since the new test standard is based on methyl iodide penetration rather than methyl iodide removal, a conforming change is made to reflect the appropriate test acceptance criteria. It should be noted that the PACV system is not modeled in any of the plant accident analyses so a specific methyl iodide removal efficiency is not rigorously documented for the charcoal filter bank. In the absence of a specific analysis value, the existing TS removal efficiency is converted to "percent penetration" and used to establish the maximum allowable penetration acceptance criteria.

6.0 Conclusion

The proposed revision to the TS references the new test standard, and the appropriate acceptance criteria for maximum allowable methyl iodide penetration that must be met to satisfy the surveillance requirement. The penetration acceptance criteria proposed for the emergency containment filters (ECFs) and the control room emergency ventilation filter are based on the methyl iodide removal efficiencies assumed in the plant safety analysis with a safety factor of 2. A methyl iodide penetration acceptance criterion is not currently included in the ECF TS so the test requirement represents a new license commitment. Methyl iodide testing, however, is included as part of the control room charcoal filter surveillance test. The proposed revision reduces the safety factor from its current value of 5 down to a value of 2 to coincide with a reduction in the inherent inaccuracies associated with laboratory test standards.

The post accident containment vent (PACV) filter acceptance criteria for maximum allowable methyl iodide penetration included in this license amendments request is derived directly from the removal efficiency for methyl iodide that is published in the current plant TS, without a change in specification safety factor.

Testing representative samples of charcoal used in the Emergency Containment Filters, Post Accident Containment Vent, and Control Room Emergency Ventilation systems in accordance with ASTM D3803-1989 provides the most accurate and reproducible test method available for monitoring the degradation of charcoal over time. The extensive industry experience and the requested action cited in GL 99-02 provide the basis for incorporating ASTM D3803-1989 into Turkey Point's TS.

ATTACHMENT 2

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Nuclear Regulatory Commission has provided standards for determining whether a significant safety hazards consideration exists (10 CFR §50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed below for the proposed amendments.

(1) Operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The probability of occurrence of an accident previously evaluated for Turkey Point is not altered by the proposed TS changes because no physical modifications are being made to the plant.

The proposed change requires that new and used charcoal in the plant engineered safety feature (ESF) ventilation systems be tested in accordance with ASTM D3803-1989, at a temperature of 30 °C and a relative humidity of 95%. The use of a new or different test standard to satisfy the charcoal surveillance test requirement does not change the radiological consequences of any previously evaluated accident. The adoption of the ASTM standard will, however, require that future charcoal samples from the emergency containment filters be tested for methyl iodide removal rather than elemental iodine removal as permitted by previous test protocols. The revised test method will provide a more uniform test program for the ESF filters, and will not adversely affect the filters affinity for elemental iodine removal. The adoption of the ASTM standard for laboratory analysis of the ESF charcoal does not impact the design bases of the ESF systems, alter post-accident source terms, or modify the removal efficiencies credited in the facility dose calculations.

The ASTM standard is very stringent and has been shown to provide a more reliable measure of the ability of charcoal to fulfill its intended design function, i.e., to remove radioiodine in any chemical form from the attendant plant gas stream, than previous test protocols. Consequently, the adoption of the ASTM standard for laboratory analysis of the ESF charcoal will ensure that Turkey Point is operated in a manner consistent with the licensing basis of the facility as it relates to the protection of the public and the control room operators during radiological accidents.

Based on the above, it is concluded that the proposed amendment does not involve a significant increase in the probability or consequences of any accident previously evaluated.

(2) **Operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any previously evaluated.**

The proposed change does not create a new or different type of accident for Turkey Point because no physical plant changes are being made, and no compensatory measures are imposed that would create a new failure scenario. The proposed change only imposes a more stringent surveillance requirement for both new and used charcoal in the plant ESF ventilation systems. Since no new failure modes are associated with the proposed changes, the activity does not create the possibility of a new or different kind of accident from any previously evaluated.

(3) **Operation of the facility in accordance with the proposed amendments would not involve a significant reduction in a margin of safety.**

The proposed license amendment adopts a more stringent standard for performing laboratory surveillance tests on both new and used charcoal in the ESF ventilation systems. Given the increased accuracy of the proposed test standard, the amendment also supports the adoption of revised acceptance criteria having a lower safety factor to the plant safety analysis limits. The composite change does not impact the design bases of the ESF systems, alter post-accident source terms, or modify the removal efficiencies credited in the facility dose calculations

The margin of safety associated with operation of the ESF ventilation systems is established by the facility dose calculations and the acceptance criteria for system performance defined in 10 CFR 100 and Criterion 19 of Appendix A to 10 CFR 50. The proposed amendments will not change this acceptance criteria nor the calculated dose limits used to establish the current plant-licensing basis.

Summary

Based on the above discussion, FPL has determined that the proposed amendments do not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety; and therefore the proposed changes do not involve a significant safety hazards consideration as defined in 10 CFR 50.92.

L-99-239
Attachment 3

ATTACHMENT 3

PROPOSED TECHNICAL SPECIFICATION PAGES

3/4 6-15
3/4 6-20
3/4 7-17

CONTAINMENT SYSTEMS

3/4.6.3 EMERGENCY CONTAINMENT FILTERING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.3 Three emergency containment filtering units shall be OPERABLE.

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

ACTION:

With one emergency containment filtering unit 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.

SURVEILLANCE REQUIREMENTS

4.6.3 Each emergency containment filtering unit 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 15 minutes;

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following operational exposure of filters to effluents from painting, fire, or chemical release or (3) after every 720 hours of system operation by:

1) Performance of a visual inspection for foreign material and gasket deterioration, and verifying that the filtering unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of greater than or equal to 99% removal of DOP and halogenated hydrocarbons at the system flow rate of 37,500 cfm ±10%;

2) Verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with applicable portions of Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and performed in accordance with ~~ANSI N-510-1975, meets the acceptance criteria of greater than 99.9% removal of elemental iodine;~~ and that any charcoal failing to meet this criteria be replaced with charcoal that meets or exceeds the ~~criteria of position C.6.a of Regulatory Guide 1.52, Rev. 2;~~ and stated performance requirement

3) Verifying a system flow rate of 37,500 cfm ±10% and a pressure drop across the HEPA and charcoal filters of less than 6 inches water gauge during system operation when tested in accordance with ANSI N510-1975;

ASTM D3803-1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 35%

Add

Delete

Add

CONTAINMENT SYSTEMS

3/4.6.6 POST ACCIDENT CONTAINMENT VENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.6 A Post Accident Containment Vent System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the Post Accident Containment Vent System inoperable, restore the Post Accident Containment Vent System to OPERABLE status within 7 days or be in at least HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.6 The Post Accident Containment Vent System shall be demonstrated OPERABLE:

a. At least once per 31 days by demonstrating system flow path operability via a system walkdown to verify that each accessible manual valve is in its correct position.

b. At least once per 18 months or (1) after any structural maintenance of the HEPA filter or charcoal adsorber housings, or (2) following operational exposure of filters to effluents from painting, fire, or chemical release in any ventilation zone communicating with the system, or (3) after 720 hours of system operation or (4) after replacement of a filter by:

1) A visual inspection of the system for foreign materials and gasket deterioration and verifying that the filter system satisfies the penetration and bypass leakage testing acceptance criteria of less than 1% for DOP and halogenated hydrocarbon tests conducted at a design flow rate of 55 cfm ±10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample performed in accordance with ~~ANSI N510-1975, meets the methyl iodide removal criteria of greater than or equal to 90%~~ and that any charcoal failing to meet the criteria be replaced with charcoal that meets or exceeds the ~~criteria of Position C.6.a of Regulatory Guide 1.52, Revision 2~~.

ASTM D3803-1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 10%

Add

Delete

Stated performance requirement

Add

SURVEILLANCE REQUIREMENTS (Continued)

ASTM D3803-1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of Less than 2.5%

1) Verifying that the air cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of greater than or equal to 99% DOP and halogenated hydrocarbon removal at a system flow rate of 1000 cfm ±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, and analyzed per ~~ANSI N510-1975, meets the criteria for methyl iodine removal efficiency of greater than or equal to 99%~~ or the charcoal be replaced with charcoal that meets or exceeds the ~~criteria of position C.6.a. of Regulatory Guide 1.52 (Revision 2),~~ stated performance requirement and

Add

Delete

3) Verifying by a visual inspection the absence of foreign materials and gasket deterioration.

Add

d. At least once per 12 months by 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 1000 cfm ±10%;

e. At least once per 18 months by verifying that on a Containment Phase "A" Isolation test signal the system automatically switches into the recirculation mode of operation.