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L-2008-196
10 CFR 50.90

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
License Amendment Request (LAR 194)
Control Room Habitability TSTF-448

Pursuant to 10 CFR 50.90, Florida Power and Light Company (FPL) hereby requests an amendment to Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4. The proposed amendment would modify the Technical Specification (TS) requirements related to control room envelope habitability in accordance with Technical Specification Task Force (TSTF) Change Traveler TSTF-448 Revision 3, "Control Room Habitability." In addition, the improvements to TSTF-448 Revision 3 as recommended in TSTF-508 Revision 0, "Revise Control Room Habitability Actions to Address Lessons Learned from TSTF-448 Implementation," have been incorporated as appropriate. This submittal satisfies the commitment identified in FPL Letter L-2007-127, dated August 10, 2007, to adopt the applicable portions of TSTF-448.

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant specific verifications. Attachment 2 provides the existing TS pages marked up to show the proposed changes. Attachment 3 provides the retyped (word-processed) TS pages with revision bars to identify the proposed changes. Attachment 4 provides a summary of the regulatory commitments made in this submittal. Attachment 5 provides existing TS Bases pages marked up to show the proposed changes.

FPL requests approval and issuance of the proposed amendments by September 30, 2009, with implementation to be completed within 180 days of issuance.

The Turkey Point Plant Nuclear Safety Committee has reviewed the proposed license amendments. In accordance with 10 CFR 50.91(b)(1), a copy of the proposed amendments is being forwarded to the State Designee for the State of Florida.

The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c). FPL has determined that the proposed changes do not involve a significant hazards consideration.

A102
NRR

Should you have any questions regarding this submittal, please contact Mr. Robert J. Tomonto, Licensing Manager, at (305) 246-7327.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 26, 2008.

Very truly yours,

William Jefferson, Jr.
Site Vice President
Turkey Point Nuclear Plant

Attachments

cc: Regional Administrator, Region II, USNRC
USNRC Project Manager, Turkey Point Nuclear Plant
Senior Resident Inspector, USNRC, Turkey Point Nuclear Plant
Mr. W. A. Passetti, Florida Department of Health

TABLE OF CONTENTS

ATTACHMENTS

1.0 Description

The proposed amendment would modify Technical Specification (TS) requirements related to control room envelope (CRE) habitability in TS 3/4.7.5, "Control Room Emergency Ventilation System (CREVS)," and TS Section 6.8, "Administrative Controls – Procedures and Programs." The Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Improved Standard Technical Specification (ISTS) Change Traveler TSTF-448 Revision 3, "Control Room Habitability," is based on the ISTS content and format. Turkey Point has not adopted the ISTS of NUREG-1431, "Standard Technical Specifications – Westinghouse Plants." Nevertheless, the TS changes proposed in this amendment are considered consistent with TSTF-448 Revision 3 given the necessary differences to account for (1) the non-standard TS language and format, (2) the plant-specific CRE and CREVS designs, and (3) current licensing basis of Turkey Point Units 3 and 4. The availability of this TS improvement was published in the Federal Register on January 17, 2007 (Volume 72, Number 10) as part of the consolidated line item improvement process (CLIIP). In addition, the improvements to TSTF-448 Revision 3 as recommended in TSTF-508 Revision 0, "Revise Control Room Habitability Actions to Address Lessons Learned from TSTF-448 Implementation," have been incorporated as appropriate.

2.0 Assessment

2.1 Applicability of Published Safety Evaluation

Florida Power & Light (FPL) has reviewed the safety evaluation, dated January 17, 2007, provided as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-448. FPL has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Turkey Point Units 3 and 4, and adequately justify this proposed amendment and the incorporation of the changes into the Turkey Point TSs.

2.2 Description and Justification of the Proposed Changes

Refer to Attachment 2 for the TS markups and Attachment 3 for the word processed (retyped) pages corresponding to the changes described below:

The proposed TS changes are considered consistent with the NRC approved TSTF ISTS Change Traveler, TSTF-448 Revision 3. As previously discussed, the improvements recommended in TSTF-508 Revision 0 have been incorporated as appropriate.

The changes to TS 3.7.5 add the necessary conditions and required actions for MODES 1 – 4 to distinguish between a CREVS inoperability caused by a degraded CRE boundary

and a CREVS inoperability for other reasons. A note is added to TS 3.7.5 to allow for the opening of the CRE boundary intermittently under administrative controls. The note is intended to provide additional operational flexibility by not having to enter the TS actions when performing certain routine activities affecting the CRE boundary. The limitations and controls for applying this note are described in the TS Bases consistent with TSTF-448. The proposed changes to TS 3.7.5 address the situations when the CRE boundary cannot be restored to OPERABLE status within the required allowed outage times (AOTs) and when the CREVS is inoperable for reasons other than an inoperable CRE boundary. In these situations, action must be taken immediately to place the unit in a condition that minimizes the accident risk. In addition, as recommended in TSTF-508, the mitigating action and restoration AOTs for an inoperable CRE boundary as specified in TSTF-448 are adopted for MODES 5 and 6.

The proposed TS changes also add a new surveillance requirement to TS 4.7.5 which imposes a requirement for comprehensive testing of CRE unfiltered air inleakage in accordance with the Control Room Envelope Habitability Program. The requirements for this program are incorporated into a new Administrative Controls program, designated as TS 6.8.4.k. Consistent with TSTF-448, the program requirements include CRE positive pressure and tracer gas inleakage testing, and additional configuration controls and preventive maintenance to ensure the CRE boundary is maintained as per design. (Note that Turkey Point does not have an Administrative Controls TS requirement for a Ventilation Filter Testing Program (VFTP), so the TS 4.7.5.d test flow rate is specified in lieu of the VFTP.)

The purpose of these proposed changes is to provide added confidence that the integrity of the CRE boundary is maintained to ensure that exposure of CRE occupants to a radiological, chemical, or smoke hazard will be within the assumptions in the licensing basis.

2.3 Optional Changes and Variations

FPL is not proposing variations or deviations from the TS changes described in TSTF-448 Revision 3, or the applicable parts of the NRC staff's model safety evaluation dated January 17, 2007, except as needed to account for (1) the non-standard language and format of the Turkey Point TSs; (2) the plant-specific design differences of the CRE and CREVS; and (3) the continued adherence to the current licensing basis of Units 3 and 4 where appropriate. The improvements to TSTF-448 Revision 3 as recommended in TSTF-508 Revision 0 have been incorporated as appropriate. Accordingly, the following adjustments have been incorporated into the proposed TS changes for Turkey Point:

Turkey Point Units 3 and 4 share a common CRE and a single CREVS filter train. The CRE and CREVS are described in Section 9.9 of the Updated Final Safety Analysis Report (UFSAR). As recommended in TSTF-508, it is proposed to slightly modify the

TSTF-448 wording regarding verification that "...mitigating actions ensure CRE occupant exposures to radiological, chemical, and smoke hazards will not exceed limits." This wording implies that there are quantitative limits for chemical and smoke hazards; however, these hazards do not have quantifiable limits. As stated in Section 2.6 of Regulatory Guide 1.196, Revision 1: "No regulatory limit exists on the amount of smoke allowed in the control room. Similarly, Turkey Point has no explicit limits on chemical hazards due to the absence of such hazards. The ability to manage chemical and smoke hazard assessments qualitatively is indicated in the proposed wording of Required Action B.2 as specified in the NRC model safety evaluation, Evaluation No. 2, and the associated model Bases. Accordingly, the wording for the Turkey Point action (ACTION b) is proposed to read: "...verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants are protected from chemical and smoke hazards." This wording has been approved by the NRC for several plants, including Beaver Valley (ADAMS Accession No. ML080370178) and Perry (ADAMS Accession No. ML080310794). Also concerning ACTION b, note that the TS Bases (refer to Attachment 5 for markups) have been revised to provide additional clarification regarding the mitigating action for chemical hazards required by ACTION b. Specifically, the Bases information has been supplemented to include a statement indicating that the mitigating action for chemical hazards can be met by verifying that the chemical hazards analyses are current and require no toxic gas protection for the CRE occupants. This is acceptable because the existing analyses conclude that there is an absence of offsite and onsite chemical hazards that would require protection for the CRE occupants.

Consistent with the current action for an inoperable CREVS, proposed ACTION b.1 for an inoperable CREVS due to an inoperable CRE boundary allows 12 hours to reach MODE 3 (HOT STANDBY), instead of 6 hours as specified in ACTION C.1 of TSTF-448, when the action applies to both units simultaneously. The specified 12 hours to reach MODE 3 is justified because of the additional operating flexibility required for a dual unit shutdown to prevent a severe transient on the Florida electrical grid. Accordingly, both units are allowed 42 hours to reach MODE 5 (COLD SHUTDOWN) if a dual unit shutdown is required.

As recommended in TSTF-508 Revision 0, the mitigating action and restoration AOTs for an inoperable CRE boundary are adopted for MODES 5 and 6 in proposed ACTION b.2, which requires immediate suspension of all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes with the mitigating action and/or restoration AOT(s) not met. The corresponding action in TSTF-448 Revision 3 (ACTION E.1) requires immediate suspension of movement of [recently] irradiated fuel assemblies. As discussed in TSTF-508, this action is overly restrictive because (1) the required mitigating actions to protect the CRE occupants make the immediate suspension of fuel movement, etc., unnecessary; (2) the proposed change is more restrictive in that the existing action does nothing to mitigate the effects of a chemical or smoke hazard; (3) the suspension of fuel movement can disrupt the refueling

sequence and increase the risk of a human performance error. Thus, if the requirements of ACTION b cannot be met (i.e., if it cannot be verified that the mitigating actions ensure CRE occupants are protected from radiological, chemical, and smoke hazards), the existing action to immediately suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes applies. This parallels the actions for MODES 1 – 4. Therefore, this proposed change is considered an improvement in the protection provided by the actions for MODES 5 and 6 while providing additional flexibility and reducing the possibility for human performance errors. Note that, in MODES 1 – 4, suspending all movement of fuel in the spent fuel pool for an inoperable CREVS for reasons other than an inoperable CRE boundary per proposed ACTION a would be considered a mitigating action for an inoperable CRE boundary, and thus is already an integral part of proposed ACTION b.

The lead-in paragraph for the new Control Room Envelope Habitability Program (TS 6.8.4.k) is modified to include references to the control room radiological dose limits of General Design Criterion (GDC) 19 of 10 CFR Part 50, Appendix A, and 10 CFR Part 50.67. Specifically, the second sentence of the paragraph is proposed to read: "The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem whole body or its equivalent to any part of the body or 5 rem total effective dose equivalent (TEDE), as applicable, for the duration of the accident." Thus, instead of referencing only one of the control room limits as bracketed in the TSTF-448 markup, both limits are proposed to be referenced. This is necessary because the current licensing basis for DBA control room dose uses the methodology and assumptions derived from Technical Information Document (TID)-14844, "Calculation of Distance Factors for Power and Test Reactor Sites," as well as the alternative source term (AST) methodology of Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," allowed by 10 CFR 50.67, "Accident source term." TID-14844 is the methodology of record for the control room dose analyses (e.g., DBA loss of coolant accident), except for the DBA fuel handling accident analysis, which uses a selective implementation of the AST methodology. As such, the Turkey Point UFSAR currently specifies control room radiological dose consequences in terms of the GDC 19 (5 rem whole body) limits, as well as the 10 CFR 50.67 (5 rem TEDE) limits.

For line item c of the TS 6.8.4.k Control Room Envelope Habitability Program elements, TSTF-448 recognizes that there may be plant-specific exceptions to the generic guidance for performance of the unfiltered air inleakage test. FPL identified the need for such an exception for Turkey Point based on its review of Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0, and the exception is included in the proposed amendment, which reads as follows:

"Appropriate application of ASTM E741 shall include the ability to take minor exceptions to the test methodology. These exceptions shall be documented in the test report."

This exception is needed because the required testing methodology, ASTM E741, was not originally intended for nuclear power plant CRE testing, and the ability to deviate from the specific details, but not the general methods and intent, may be necessary to account for variations in vendor testing methods. A similar exception has been approved for San Onofre Nuclear Generating Station, Units 2 and 3, in License Amendments dated October 31, 2007 (ADAMS Accession Nos. ML072890012 and ML072890015). Nuclear Energy Institute (NEI) 99-03, Revision 1, Appendix EE discusses exceptions typically taken by ASTM E741 test vendors. While not considered all-inclusive, the exceptions listed in Appendix EE provide examples of the types of exceptions that will be allowed by the proposed Control Room Envelope Habitability Program. Exceptions to the test methodology will be documented in the individual test reports.

In order to be consistent with line item c of the Control Room Envelope Habitability Program elements, the proposed wording in the last sentence of line item d for the TS 6.8.4.k program elements is changed slightly from the wording in TSTF-448. Currently, the last sentence reads: "The results shall be trended and used as part of the [18] month assessment of the CRE boundary." The bracketed "18" months was an error since the normal interval for the periodic CRE assessment specified in Regulatory Guide 1.197, Section C.1, is 36 months. Therefore, as recommended in TSTF-508 Revision 0 to assure consistency within the program requirements, the words "18 month" are proposed to be replaced with the word "periodic." Thus, the last sentence of line item d of the TS 6.8.4.k program elements is proposed to read: "The results shall be trended and used as part of the periodic assessment of the CRE boundary." This wording substitution resolves the inconsistency between the Control Room Envelope Habitability Program requirements in a manner consistent with the published regulatory guidance.

The definition of STAGGERED TEST BASIS contained in Definition 1.29 of the Turkey Point TSs differs from the definition contained in Section 1.1 of the NUREG-1431 ISTS and used in the TSTF-448 requirements in line item d of the Control Room Envelope Habitability Program elements. The Turkey Point CREVS includes redundant active components (e.g., two supply fans, two outside air isolation dampers). To achieve the desired 18-month frequency specified by TSTF-448, the test schedule for two redundant components is obtained from TS Definition 1.29 by dividing the specified test interval into two equal subintervals and testing one of the components at the beginning of each subinterval. Thus, specifying the test interval as 36 months and dividing this interval into two equal subintervals results in two 18-month subintervals (one subinterval per redundant component), which is equivalent to the TSTF-448 STAGGERED TEST BASIS frequency contained in line item d of the Control Room Envelope Habitability Program. Therefore, by specifying the STAGGERED TEST BASIS for line item d of the

Control Room Habitability Program elements as 36 months, the component test frequency is 18 months consistent with TSTF-448. Periodic assessment of the CRE boundary will be performed at least every 36 months in accordance with the current program requirements as described in the December 9, 2003 letter response to Generic Letter 2003-01.

In TSTF-448, the requirements for line item f of the Control Room Envelope Habitability Program elements specify that: "The provisions of SR 3.0.2 are applicable to the Frequencies for assessing CRE habitability..." In SR 3.0.2 of the NUREG-1431 ISTS, it is stated that a surveillance requirement (SR) is met if the surveillance is performed within 1.25 times the specified interval. Turkey Point TS 4.0.2 states that a surveillance requirement shall be performed within the specified time interval with a maximum extension of the surveillance interval of 25%. The intent of line item f of the Control Room Envelope Habitability Program elements is to allow a 25% extension of the program-related testing frequencies. This is accomplished by the Turkey Point 25% surveillance interval extension provision in TS 4.0.2. Accordingly, the proposed replacement of "SR 3.0.2" with "Specification 4.0.2" in line item f of the Control Room Envelope Habitability Program elements does not change the intent of the requirement, and is considered an equivalent conforming change.

The TS Bases changes (markups included in Attachment 5 for information only) have been prepared to reflect the applicable Bases statements from TSTF-448 Revision 3 and, where appropriate, also reflect the exceptions identified above. The Bases changes will be processed in accordance with the requirements of Administrative Controls TS 6.8.4.i, "Technical Specifications (TS) Bases Control Program," thereby providing assurance that FPL has adequate controls in place to properly develop and maintain the Bases.

2.4 License Condition Regarding Initial Performance of New Surveillance and Assessment Requirements

FPL proposes the following as a license condition for Turkey Point Units 3 and 4 to support implementation of the proposed TS changes:

Upon implementation of Amendment No. X* for Unit 3 and Y* for Unit 4 adopting TSTF-448 Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage as required by Surveillance Requirement (SR) 4.7.5.f, in accordance with Technical Specification (TS) 6.8.4.k.c.(i), the assessment of CRE habitability as required by Specification 6.8.4.k.c.(ii), and the measurement of CRE pressure as required by Specification 6.8.4.k.d, shall be considered met. Following implementation:

(a) The first performance of SR 4.7.5.f, in accordance with Specification 6.8.4.k.c.(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 4.0.2, as measured from August 2003, the date of the most recent successful

tracer gas test, as stated in the December 9, 2003 letter response to Generic Letter 2003-01.

(b) The first performance of the periodic assessment of CRE habitability, Specification 6.8.4.k.c.(ii), shall be within 3 years, plus the 9-month allowance of SR 4.0.2, as measured from August 2003, the date of the most recent successful tracer gas test, as stated in the December 9, 2003 letter response to Generic Letter 2003-01, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.

(c) The first performance of the periodic measurement of CRE pressure, Specification 6.8.4.k.d, shall be within 36 months on a STAGGERED TEST BASIS, plus the 138 days allowed by SR 4.0.2, as measured from the date of the most recent successful pressure measurement test, or within 138 days if not performed previously.

** placeholders for actual amendment numbers*

3.0 Regulatory Analysis

3.1 No Significant Hazards Consideration Determination

FPL has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIIP. FPL has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to Turkey Point Units 3 and 4 and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Commitments

FPL commits to perform the following activities for Turkey Point Units 3 and 4 to comply with this Licensing Amendment Request:

Perform Control Room Envelope unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program, which will include the following requirements:

1. Tracer Gas Testing.** Determine the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

2. CRE Habitability Assessment.** Assess CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

3. Control Room Differential Pressure Test. Measure the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation of the Control Room Ventilation Systems, at a Frequency of 36 months on a STAGGERED TEST BASIS.

   ** *Turkey Point takes exception to Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0. The exception is stated in the Control Room Envelope Habitability Program requirements as: "Appropriate application of ASTM E741 shall include the ability to take minor exception to the test methodology. These exceptions shall be documented in the test report."*

4.0 Environmental Evaluation

FPL has reviewed the environmental evaluation included in the model safety evaluation dated January 17, 2007 as part of the CLIIP. FPL has concluded that the staff's findings presented in that evaluation are applicable to Turkey Point Units 3 and 4 and the evaluation is hereby incorporated by reference for this application.

Technical Specification Change Markups

Page 3/4 7-16
Page 3/4 7-17
Page 6-18b

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

Add (*)

3.7.5 The Control Room Emergency Ventilation System shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

~~MODES 1, 2, 3 and 4:~~ in MODE 1, 2, 3, or 4 for reasons other than an inoperable CRE boundary

Add (a.) With the Control Room Emergency Ventilation System inoperable, immediately suspend all movement of fuel in the spent fuel pool and restore the inoperable system to OPERABLE status within 84 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

INSERT 1

~~MODES 5 and 6:~~ in MODE 5 or 6 for reasons other than an inoperable CRE boundary

Add (c.) With the Control Room Emergency Ventilation System inoperable, immediately suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

SURVEILLANCE REQUIREMENTS

4.7.5 The Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;

b. At least once per 31 days 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;

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

Add

* The control room envelope (CRE) boundary may be opened intermittently under administrative control.

SURVEILLANCE REQUIREMENTS (Continued)

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 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, and

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

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.

Add — f. By performing required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.

PROCEDURES AND PROGRAMS (Continued)

d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. For Unit 3 during Refueling Outage 23 and the subsequent operating cycles until the next scheduled inspection, and for Unit 4 during Refueling Outage 23 and the subsequent operating cycles until the next scheduled inspection, the portion of the tube below 17 inches from the top of the hot leg tubesheet is excluded from inspection when the alternate tube repair criteria in Specification 6.8.4.j.c.1 is implemented. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tube may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 120, 90, and, thereafter, 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. In addition, inspect 50% of the tubes by the refueling outage nearest the midpoint of the period and the remaining 50% by the refueling outages nearest the end of the period. No SG shall operate for more than 48 effective full power months or two refueling outages (whichever is less) without being inspected.

3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.

INSERT 2 →

e. Provisions for monitoring operational primary-secondary leakage.

6.8.5 Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety-related functions, e.g. licensed Senior Operators, licensed Operators, health physicists, auxiliary operators, and key maintenance personnel. The procedures shall include guidelines on working hours that ensure that adequate shift coverage is maintained without routine heavy use of overtime for individuals.

Any deviation from the working hour guidelines shall be authorized by the applicable department manager or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned. Routine deviation from the working hour guidelines shall not be authorized.

INSERT 1

b. With the Control Room Emergency Ventilation System inoperable due to an inoperable CRE boundary, immediately initiate action to implement mitigating actions and, within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants are protected from chemical and smoke hazards. Restore CRE boundary to OPERABLE status within 90 days, or:

1. With the requirements not met in MODE 1, 2, 3, or 4, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

2. With the requirements not met in MODE 5 or 6, immediately suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

INSERT 2

k. Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Ventilation System (CREVS), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem whole body or its equivalent to any part of the body or 5 rem total effective dose equivalent (TEDE), as applicable, for the duration of the accident.

The program shall include the following elements:

a. The definition of the CRE and the CRE boundary.

b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.

c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197,

"Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

The following is an exception to Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0:

> Appropriate application of ASTM E741 shall include the ability to take minor exceptions to the test methodology. These exceptions shall be documented in the test report.

d. Measurement, at designated locations, of the CRE pressure relative to external areas adjacent to the CRE boundary during the pressurization mode of operation of the CREVS, operating at the flow rate required by Surveillance Requirement 4.7.5.d, at a Frequency of 36 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the periodic assessment of the CRE boundary.

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air inleakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.

f. The provisions of Specification 4.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered inleakage, and measuring CRE pressure and assessing the CRE boundary as required by paragraphs c and d, respectively.

Word Processed Technical Specification Changes

Page 3/4 7-16
Page 3/4 7-17
Page 6-18b
Page 6-18c

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 The Control Room Emergency Ventilation System shall be OPERABLE.*

APPLICABILITY: All MODES.

ACTION:

a. With the Control Room Emergency Ventilation System inoperable in MODE 1, 2, 3, or 4 for reasons other than an inoperable CRE boundary, immediately suspend all movement of fuel in the spent fuel pool and restore the inoperable system to OPERABLE status within 84 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the Control Room Emergency Ventilation System inoperable due to an inoperable CRE boundary, immediately initiate action to implement mitigating actions and, within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants are protected from chemical and smoke hazards. Restore CRE boundary to OPERABLE status within 90 days, or:

   1. With the requirements not met in MODE 1, 2, 3, or 4, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

   2. With the requirements not met in MODE 5 or 6, immediately suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

c. With the Control Room Emergency Ventilation System inoperable in MODE 5 or 6 for reasons other than an inoperable CRE boundary, immediately suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

SURVEILLANCE REQUIREMENTS

4.7.5 The Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;

b. At least once per 31 days 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;

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

*The control room envelope (CRE) boundary may be opened intermittently under administrative control.

SURVEILLANCE REQUIREMENTS (Continued)

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 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, and

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

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.

f. By performing required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.

PROCEDURES AND PROGRAMS (Continued)

d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. For Unit 3 during Refueling Outage 23 and the subsequent operating cycles until the next scheduled inspection, and for Unit 4 during Refueling Outage 23 and the subsequent operating cycles until the next scheduled inspection, the portion of the tube below 17 inches from the top of the hot leg tubesheet is excluded from inspection when the alternate tube repair criteria in Specification 6.8.4.j.c.1 is implemented. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tube may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 120, 90, and, thereafter, 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. In addition, inspect 50% of the tubes by the refueling outage nearest the midpoint of the period and the remaining 50% by the refueling outages nearest the end of the period. No SG shall operate for more than 48 effective full power months or two refueling outages (whichever is less) without being inspected.

3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.

e. Provisions for monitoring operational primary-secondary leakage.

k. Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Ventilation System (CREVS), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem whole body or its equivalent to any part of the body or 5 rem total effective dose equivalent (TEDE), as applicable, for the duration of the accident.

PROCEDURES AND PROGRAMS (Continued)

The program shall include the following elements:

a. The definition of the CRE and the CRE boundary.

b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.

c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

The following is an exception to Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0:

Appropriate application of ASTM E741 shall include the ability to take minor exceptions to the test methodology. These exceptions shall be documented in the test report.

d. Measurement, at designated locations, of the CRE pressure relative to external areas adjacent to the CRE boundary during the pressurization mode of operation of the CREVS, operating at the flow rate required by Surveillance Requirement 4.7.5.d, at a Frequency of 36 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the periodic assessment of the CRE boundary.

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air inleakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.

f. The provisions of Specification 4.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered inleakage, and measuring CRE pressure and assessing the CRE boundary as required by paragraphs c and d, respectively.

6.8.5 Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety-related functions, e.g. licensed Senior Operators, licensed Operators, health physicists, auxiliary operators, and key maintenance personnel. The procedures shall include guidelines on working hours that ensure that adequate shift coverage is maintained without routine heavy use of overtime for individuals.

Any deviation from the working hour guidelines shall be authorized by the applicable department manager or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned. Routine deviation from the working hour guidelines shall not be authorized.

Regulatory Commitments

The following table identifies those actions committed to by FPL in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

REGULATORY COMMITMENTS	DUE DATE/EVENT
Tracer Gas Testing	The firm date for completion of this commitment is between August 2009 (6 year) and February 2011 (6 years + 25%) for both units.
CRE Habitability Assessment	The firm date for completion of this commitment is between August 2006 and May 2007. However, a CRE assessment was already performed for Turkey Point in September 2006. Therefore, **this commitment has been completed.**
Control Room Differential Pressure Test	The firm dates for completion of these commitments are as follows: • Initial test within 138 days of implementation of the license amendment. • Next test within 36 months of implementation of the license amendment on a STAGGERED TEST BASIS, plus 138 days.

Technical Specification Bases Markups

(Information Only)

ATTACHMENT 1
(Page 85 of 109)

TECHNICAL SPECIFICATION BASES

3/4.7.4 Ultimate Heat Sink

The limit on ultimate heat sink (UHS) temperature in conjunction with the SURVEILLANCE REQUIREMENTS of Technical Specification 3/4.7.2 will ensure that sufficient cooling capacity is available either: (1) To provide normal cooldown of the facility, or (2) To mitigate the effects of accident conditions within acceptable limits.

FPL has the option of monitoring the UHS temperature by monitoring the temperature in the ICW system piping going to the inlet of the CCW heat exchangers. Monitoring the UHS temperature after the ICW but prior to CCW heat exchangers is considered to be equivalent to temperature monitoring before the ICW pumps. The supply water leaving the ICW pumps will be mixed and therefore, it will be representative of the bulk UHS temperature to the CCW heat exchanger inlet. The effects of the pump heating on the supply water are negligible due to low ICW head and high water volume. Accordingly, monitoring the UHS temperature after the ICW pumps but prior to the CCW heat exchangers provides an equivalent location for monitoring the UHS temperature.

With the implementation of the CCW heat exchanger performance monitoring program, the limiting UHS temperature can be treated as a variable with an absolute upper limit of 100°F without compromising any margin of safety. Demonstration of actual heat exchanger performance capability supports system operation with postulated canal temperatures greater than 100°F. Therefore, an upper Technical Specification limit of 100°F is conservative.

3/4.7.5 Control Room Emergency Ventilation System

(CREVS)

The OPERABILITY of the Control Room Emergency Ventilation System ensures that: (1) The ambient air temperature does not exceed the allowable temperature for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) The control room will remain habitable for ~~operations personnel~~ during and following ~~all credible accident conditions~~. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50.

envelope (CRE)

occupants

INSERT 3

an uncontrolled release of radioactivity, hazardous chemicals, or smoke

ATTACHMENT 1
(Page 86 of 109)

TECHNICAL SPECIFICATION BASES

3/4.7.5 (Cont'd)

CREVS

The ~~Control Room Emergency Ventilation System~~ is considered to be OPERABLE (Ref: JPN–PTN–SENP-92-017) when 1) Three air handling units (AHUs) (one of each of the three air conditioning units) are operable, 2) Two condensing units (two out of three available condensers) are operable, 3) One recirculation filter unit is operable, 4) Two recirculation fans operable, and 5) Associated dampers are operable. The reason three AHUs are required is that in the event of a single failure, only two AHUs would be available to supply air to the suction of the recirculation filter and fan. This is the configuration tested to support Technical Specification operability for flow through the emergency charcoal filter. Taking one AHU out of service renders the system incapable of operating in accordance with the tested configuration assuming an accident and a single failure (i.e., only one air handling unit available instead of the two assumed by the analysis). Any one of the three condensing (air conditioning) units is capable of maintaining the control room equipment within its environmental limits for temperature and humidity. Thus, one condensing unit can be taken out of service without impacting the ability of the ~~Control Room Emergency Ventilation System~~ to accomplish its intended function under single failure conditions.

CREVS

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 ensure early detection of conditions which could cause the system to fail or operate improperly. The filters performance tests prove that filters have been properly installed, that no deterioration or damage has occurred, and that all components and subsystems operate properly. The in-situ tests are performed in accordance with the methodology and intent of ANSI N510 (1975) and provide assurance that filter performance has not deteriorated below returned specification values due to aging, contamination, or other effects. Charcoal samples are tested using ASTM D3803-1989 in accordance with Generic Letter 99-02. The test conditions (30°C and 95% relative humidity) are as specified in the Generic Letter. Table 1 of the ASTM standard provides the tolerances that must be met during the test for each test parameter. The specified methyl iodide penetration value is based on the assumptions used in the LOCA Analysis.

INSERT 4

3/4.7.6 Snubbers

All snubbers are required OPERABLE to ensure that the structural integrity of the Reactor Coolant System and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to each safety-related system during an earthquake or severe transient. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

INSERT 3

CRE to 5 rem whole body or its equivalent to any part of the body or 5 rem total effective dose equivalent (TEDE), as applicable, for the duration of the accident. These limits are consistent with the requirements of 10 CFR Part 50, Appendix A, General Design Criterion 19 and 10 CFR Part 50.67, respectively.

INSERT 4

Turkey Point Units 3 and 4 share a common CRE. The CRE is the area within the confines of the CRE boundary that contains the spaces that control room occupants inhabit to control the units during normal and accident conditions. This area encompasses the control room, including the control room offices, rack area, kitchen and lavatory, and the mechanical equipment room (MER) located below the control room. The MER contains the CREVS equipment. The CRE is protected during normal operation, natural events, and accident conditions. The CRE boundary is the combination of walls, floor, roof, ducting, doors, penetrations, and equipment that physically form the CRE. The OPERABILITY of the CRE boundary must be maintained to ensure that the inleakage of unfiltered air into the CRE will not exceed the inleakage assumed in the licensing basis analysis of design basis accident (DBA) consequences, and that CRE occupants are protected from hazardous chemicals and smoke. The CRE and its boundary are defined in the Control Room Envelope Habitability Program.

The location of CREVS components and ducting within the CRE ensures an adequate supply of filtered air to all areas requiring access. The CREVS filter train provides airborne radiological protection for the CRE occupants, as demonstrated by occupant dose analyses for the most limiting design basis accident fission product release presented in the UFSAR, Chapter 14.

The CREVS provides protection from smoke and hazardous chemicals to the CRE occupants. The analysis of hazardous chemical releases for NUREG-0737 Item III.D.3.4, "Control Room Habitability Requirement," and the subsequent reanalysis included in PC/M 06-004, "Addition of Unit 5 to the Turkey Point Site," for new chemical release hazards demonstrate that the toxicity limits are not exceeded in the CRE following a hazardous chemical release. The analysis of a smoke challenge demonstrates that it will not result in the inability of the CRE occupants to control the reactors either from the control room or from the alternate shutdown panels.

In order for the CREVS to be considered OPERABLE, the CRE boundary must be maintained such that the CRE occupant dose from a large radioactive release does not exceed the calculated dose in the licensing basis consequence analyses for DBAs, and that CRE occupants are protected from hazardous chemicals and smoke.

With respect to radiological emergencies, the CREVS is designed as a single filtration train that is capable of automatically starting under accident conditions to initiate CRE pressurization and filtration, assuming the occurrence of a single active damper or supply fan failure. For other emergencies that could affect the CRE environment, the CREVS is capable of manual actuation.

The LCO is modified by a Note allowing the CRE boundary to be opened intermittently under administrative controls. This Note only applies to openings in the CRE boundary that can be rapidly restored to the design condition, such as doors, hatches, floor plugs, and access panels. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls should be proceduralized and consist of stationing a dedicated individual at the opening who is in continuous communication with the operators in the CRE. This individual will have a method to rapidly close the opening and to restore the CRE boundary to a condition equivalent to the design condition when a need for CRE isolation is indicated.

The CREVS must be OPERABLE to ensure that the CRE will remain habitable to limit operator exposure during and following a DBA. Since the CREVS and CRE are common to both Turkey Point Units 3 and 4, the ACTION requirements are applicable to both units simultaneously, and must be applied according to each unit's operational MODE.

If the unfiltered inleakage of potentially contaminated air past the CRE boundary and into the CRE can result in CRE occupant radiological dose greater than the calculated dose of the licensing basis analyses of DBA consequences (allowed to be up to 5 rem whole body or its equivalent to any part of the body or 5 rem total effective dose equivalent – TEDE, as applicable), or inadequate protection of CRE occupants from hazardous chemicals or smoke, the CRE boundary is inoperable. Actions must be taken to restore an OPERABLE CRE boundary within 90 days.

During the period that the CRE boundary is considered inoperable, action must be initiated to implement mitigating actions to lessen the effect on CRE occupants from the potential hazards of a radiological or chemical event or a challenge from smoke. Actions must be taken within 24 hours to verify that in the event of a DBA, the mitigating actions will ensure that CRE occupant radiological exposures will not exceed the calculated dose of the licensing basis analyses of DBA consequences, and that CRE occupants are protected from hazardous chemicals and smoke. Previous surveys of offsite and onsite chemicals identified that no hazardous chemicals present a hazard to control room habitability. Therefore, the mitigating action for chemical hazards may verify that the chemical hazards analyses are current and require no toxic gas protection for the CRE occupants. These mitigating actions (i.e., actions that are taken to offset the consequences of the inoperable CRE boundary) should be preplanned for implementation upon entry into the condition, regardless of whether entry is intentional or unintentional. The 24 hour allowable outage time (AOT) is reasonable based on the low probability of a

DBA occurring during this time period, and the use of mitigating actions. The 90 day AOT is reasonable based on the determination that the mitigating actions will ensure protection of CRE occupants within analyzed limits while limiting the probability that CRE occupants will have to implement protective measures that may adversely affect their ability to control the reactors and maintain them in a safe shutdown condition in the event of a DBA. In addition, the 90 day AOT is a reasonable time to diagnose, plan and possibly repair, and test most problems with the CRE boundary.

In MODE 1, 2, 3, or 4, if the inoperable CREVS or the CRE boundary cannot be restored to OPERABLE status within the associated required AOT, the unit must be placed in a MODE that minimizes the accident risk. To minimize the accident risk in MODE 1, 2, 3, or 4, the unit must be placed in at least MODE 3 (HOT STANDBY) within 6 hours, and in MODE 5 (COLD SHUTDOWN) within 36 hours. If the inoperability applies to both units simultaneously, be in MODE 3 within 12 hours, and in MODE 5 within 42 hours. For an inoperable CREVS for reasons other than an inoperable CRE boundary, immediate suspension of all movement of fuel in the spent fuel pool is also required, but this does not preclude the movement of fuel to a safe position. The AOTs are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems. Note that suspending all movement of fuel in the spent fuel pool for an inoperable CRE boundary in MODE 1, 2, 3, or 4 would be considered a mitigating action, and thus is an integral part of ACTION b.

In MODE 5 or 6, if the CRE boundary cannot be restored to OPERABLE status within the required AOT or the CREVS is inoperable for reasons other than an inoperable CRE boundary, action must be taken immediately to suspend all operations that could result in a release of radioactivity that might require isolation of the CRE. This places the unit in a condition that minimizes the accident risk. This does not preclude the movement of fuel to a safe position. These ACTION requirements apply to both units simultaneously.

Surveillance Requirement 4.7.5.f verifies the OPERABILITY of the CRE boundary by testing for unfiltered air inleakage past the CRE boundary and into the CRE. The details of the testing are specified in the Control Room Envelope Habitability Program.

The CRE is considered habitable when the radiological dose to CRE occupants calculated in the licensing basis analyses of DBA consequences is no more than 5 rem whole body or its equivalent to any part of the body or 5 rem TEDE, as applicable, and the CRE occupants are protected from hazardous chemicals and smoke. This SR verifies that the unfiltered air inleakage into the CRE is no greater than the flow rate assumed in the licensing basis analyses of DBA consequences. When unfiltered air inleakage is greater than the assumed flow rate, ACTION b must be entered. This ACTION allows time to restore the CRE boundary to OPERABLE status provided mitigating actions can ensure that the CRE remains within the licensing basis habitability limits for the occupants

following an accident. Compensatory measures are discussed in Regulatory Guide 1.196, Section C.2.7.3, which endorses, with exceptions, NEI 99-03 (June 2001), Section 8.4 and Appendix F. These compensatory measures may also be used as mitigating actions as required by ACTION b. Temporary analytical methods may also be used as compensatory measures to restore OPERABILITY, as discussed in a letter from Eric J. Leeds (NRC) to James W. Davis (NEI) dated January 30, 2004, "NEI Draft White Paper, Use of Generic Letter 91-18 Process and Alternative Source Terms in the Context of Control Room Habitability" (ADAMS Accession No. ML040300694). Options for restoring the CRE boundary to OPERABLE status include changing the licensing basis DBA consequence analysis, repairing the CRE boundary, or a combination of these actions. Depending upon the nature of the problem and the corrective action, a full scope inleakage test may not be necessary to establish that the CRE boundary has been restored to OPERABLE status.