

Serial: RNP-RA/07-0073

*Nov 19, 2007*

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23

REQUEST FOR ADMINISTRATIVE CHANGES TO THE  
OPERATING LICENSE AND TECHNICAL SPECIFICATIONS

Ladies and Gentlemen:

In accordance with the provisions of the Code of Federal Regulations, Title 10, Part 50.90, Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc. (PEC), is submitting a request for an amendment to the Operating License and to Appendix A, Technical Specifications, of Facility Operating License No. DPR-23, for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2.

The proposed changes make administrative improvements to various Operating License and Technical Specifications sections as listed in Attachment II.

Attachment I provides an Affirmation as required by 10 CFR 50.30(b).

Attachment II provides a description of the current conditions and proposed changes, technical justification for the proposed changes, a No Significant Hazards Consideration Determination, and an Environmental Impact Consideration.

Attachment III provides a markup of the affected TS pages.

Attachment IV provides a retyped version of the affected TS pages.

In accordance with 10 CFR 50.91(b), a copy of this license amendment request is being provided to the State of South Carolina.

Nuclear Regulatory Commission approval of the proposed license amendment by August 27, 2008, is requested, with a 30 day implementation period.

If you have any questions concerning this matter, please contact me at (843) 857-1253.

Sincerely,  
***Original signed by***  
***C. T. Baucom***

C. T. Baucom  
Manager – Support Services – Nuclear

Attachments:

- I. Affirmation
- II. Request for Administrative Changes to the Operating License and Technical Specifications
- III. Markup of Operating License and Technical Specifications Pages
- IV. Retyped Operating License and Technical Specifications Pages

RAC/rac

- c: Ms. S. E. Jenkins, Manager, Infectious and Radioactive Waste Management Section (SC)  
Mr. A. Gantt, Chief, Bureau of Radiological Health (SC)  
Dr. W. D. Travers, NRC, Region II  
Ms. M. Vaaler, NRC, NRR  
NRC Resident Inspector, HBRSEP  
Attorney General (SC)

**AFFIRMATION**

The information contained in letter RNP-RA/07-0073 is true and correct to the best of my information, knowledge, and belief; and the sources of my information are officers, employees, contractors, and agents of Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc. I declare under penalty of perjury that the foregoing is true and correct.

Executed On: 16 Nov 2007

Original signed by T. D. Walt

T. D. Walt

Vice President, HBRSEP, Unit No. 2

## **H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**

### **REQUEST FOR ADMINISTRATIVE CHANGES TO THE OPERATING LICENSE AND TECHNICAL SPECIFICATIONS**

#### **Description of Current Conditions, Proposed Changes, and Technical Justification**

The proposed changes are to the following sections of the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, Operating License (OL) and Technical Specifications (TS):

1. OL Section 3.G (1): The secondary water chemistry program requirements specified in this section are redundant to the requirements of TS 5.5.10, "Secondary Water Chemistry Program." Therefore, this condition is being deleted from the OL, as it is appropriately addressed as a TS program.
2. OL Section 3.G (2): The leakage reduction program requirements specified in this section are redundant to the requirements of TS 5.5.2, "Primary Coolant Sources Outside Containment." Therefore, this condition is being deleted from the OL, as it is appropriately addressed as a TS program.
3. TS Section 1.1, "Definitions:" In the last line of the definition for "SHUTDOWN MARGIN," the word "the" prior to 547°F is being deleted. This is a grammar change.
4. TS Section 3.1.7, "Rod Position Indication:" The footnote at the bottom of Page 3.1-15 was only applicable during Cycle 22. HBRSEP, Unit No. 2, is now in operating Cycle 25. Therefore, the footnote is obsolete and is being deleted.
5. TS Section 3.4.3, "RCS Pressure and Temperature (P/T) Limits" – Figure 3.4.3-1 and Figure 3.4.3-2: When these figures were issued in Amendment No. 202 (NRC letter dated February 7, 2005 –TAC NO. MC4160), some information that was on the proposed figures (Progress Energy letter dated August 19, 2004) was inadvertently omitted or typed incorrectly. Specifically, in Figure 3.4.3-1, in the notes at the top, the Upper Shell Plate Weld ID (W10201-1) was omitted and the words "allowance" and "instrumentation" were typed with an uppercase "A" or "I" instead of lower case. In Figure 3.4.3-2, in the notes at the top, the Upper Shell Plate Weld ID (W10201-1) and the Girth Weld ID (10-273) were omitted, the limiting ART Values for 3/4T of 147°F and 172°F were omitted, and the words "allowance" and "instrumentation" were typed with an uppercase "A" or "I" instead of lower case. Additionally, in the graph, the identifier for the 60°F/Hr curve is missing the "Hr" term. These errors are being corrected.
6. TS Section 3.4.9, "Pressurizer:" For Condition B, the  $\leq$  symbol is being replaced with a  $<$  symbol. The current symbol is incorrect based on the LCO requirements that specify that a pressurizer heater capacity equal to or greater than 125 kW is acceptable.
7. TS Section 3.7.4, "Auxiliary Feedwater (AFW) System:" On the top of the table, the words "Actions (continued)" are being added and in Condition E, the term "OR" is being moved to the right to line up properly with the text consistent with Standard TS format. These are formatting changes.
8. TS Section 5.5.12, "Explosive Gas and Storage Tank Radioactivity Monitoring Program:" The HBRSEP, Unit No. 2, design is such that the concentration of oxygen in the Waste Gas

Decay Tanks is controlled to be below the concentration at which a hydrogen explosion could occur, regardless of the hydrogen concentration. Therefore, by controlling the oxygen concentration to below limits, the combination of oxygen and hydrogen in the system will not be an explosive mixture. The current TS wording can imply there are limits for both hydrogen and oxygen. The term “hydrogen and” is being deleted for clarity.

These changes are administrative and are intended to ensure the TS are accurate and up-to-date. There will be no changes to the plant design or to the procedural controls for the operation, surveillance, or maintenance of the plant as a result of the proposed changes.

### **No Significant Hazards Consideration Determination**

Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc., is proposing changes to the Operating License and to Appendix A, Technical Specifications, of Facility Operating License No. DPR-23, for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. The proposed changes are administrative as they delete requirements that are obsolete or redundant, or correct and clarify the typing and formatting of other requirements. The proposed changes will not result in changes to the plant design or the procedural controls for the operation, surveillance, or maintenance of the plant.

An evaluation of the proposed changes has been performed in accordance with 10 CFR 50.91(a)(1) regarding no significant hazards considerations using the standards in 10 CFR 50.92(c). A discussion of these standards as they relate to this amendment request follows:

1. Do the Proposed Changes Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated?

No. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes are administrative. The changes delete obsolete or redundant requirements, clarify existing requirements, and correct typing and formatting errors. There will be no resulting changes to the plant design or procedural controls. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the Proposed Changes Create the Possibility of a New or Different Kind of Accident From Any Previously Evaluated?

No. The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated. There are no physical changes being made to the plant or to the manner in which the plant is operated. Therefore, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the Proposed Changes Involve a Significant Reduction in the Margin of Safety?

No. The proposed changes do not involve a significant reduction in the margin of safety. There are no physical changes being made to the plant or to the manner in which the plant is operated. The proposed changes are administrative. The changes delete obsolete or redundant requirements, clarify existing requirements, and correct typing and formatting errors. Therefore, the changes do not involve a significant reduction in any margin of safety for HBRSEP, Unit No. 2.

Based on the preceding discussion, it has been determined that the requested changes do not involve a significant hazards consideration.

### **Environmental Impact Consideration**

10 CFR 51.22(c)(9) provides criteria for identification of licensing and regulatory actions for categorical exclusion from performing an environmental assessment. A proposed change for an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed change would not (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increases in the amounts of any effluents that may be released offsite; (3) result in a significant increase in individual or cumulative occupational radiation exposure. Carolina Power and Light Company has reviewed this request and determined that the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the amendment. The basis for this determination follows:

#### **Proposed Change**

Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc., is proposing changes to the Operating License and to Appendix A, Technical Specifications, of Facility Operating License No. DPR-23, for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. The proposed changes are administrative as they delete requirements that are obsolete or redundant, or correct and clarify the typing and formatting of other requirements. The proposed changes will not result in changes to the plant design or the procedural controls for the operation, surveillance, or maintenance of the plant.

#### **Basis**

The proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) for the following reasons:

1. As demonstrated in the No Significant Hazards Consideration Determination, the proposed changes do not involve a significant hazards consideration.
2. The proposed changes will not result in changes to the plant design or the procedural controls for the operation, surveillance, or maintenance of the plant. The proposed changes do not affect the generation or control of effluents. Therefore, the proposed changes will not

result in a significant change in the types or significant increases in the amounts of any effluents that may be released offsite.

3. The proposed changes will not cause a significant increase in occupational radiation exposure. There are no proposed physical changes to the facility or to the manner in which the facility is operated. Therefore, the proposed changes will not result in a significant increase in individual or cumulative occupational radiation exposure.

United States Nuclear Regulatory Commission  
Attachment III to Serial: RNP-RA/07-0073  
10 Pages (including cover page)

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**

**REQUEST FOR ADMINISTRATIVE CHANGES TO THE  
OPERATING LICENSE AND TECHNICAL SPECIFICATIONS**

**MARKUP OF OPERATING LICENSE AND TECHNICAL SPECIFICATIONS PAGES**



C. Reports

Carolina Power & Light Company shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

Carolina Power & Light Company shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Fire Protection Program

Carolina Power & Company shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Fire Protection Safety Evaluation Report dated February 28, 1978, and supplements thereto. Carolina Power & Light Company may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

F. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "H. B. Robinson Steam Electric Plant Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 1, 2004, as supplemented by letter dated October 20, 2004.

G. The following programs shall be implemented and maintained by the licensee:

~~(1) A secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include: the identification of critical parameters, their sampling frequency, sampling points and control band limits; requirements for the documentation and review of sample results; the identification of the authority responsible for the interpretation of sample results; the procedures used to measure the~~

~~critical parameters; and the procedures which identify the administrative events and corrective actions required to return the secondary chemistry to its normal control band following an out-of-control band condition.~~

~~(2) A program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include: provisions for preventive maintenance and periodic visual inspection requirements, and integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.~~

(1) DELETED

(2) DELETED

(3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.

(4) DELETED

H. DELETED

I. DELETED

J. DELETED

K. Updated Final Safety Analysis Report

The Carolina Power & Light Company Updated Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The Carolina Power & Light Company shall complete these activities no later than July 31, 2010, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, the Carolina Power & Light Company may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the Carolina Power & Light Company evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

## 1.1 Definitions

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SHUTDOWN MARGIN (continued)	<ol style="list-style-type: none"><li>a. All rod cluster control assemblies (RCCAs) are fully inserted except for the single RCCA of highest reactivity worth, which is assumed to be fully withdrawn. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM; and</li><li>b. In MODES 1 and 2, the fuel and moderator temperatures are changed to <del>the</del> 547°F.</li></ol>
SLAVE RELAY TEST	A SLAVE RELAY TEST shall consist of energizing each slave relay and verifying the OPERABILITY of each slave relay. The SLAVE RELAY TEST shall include, as a minimum, a continuity check of associated testable actuation devices.
STAGGERED TEST BASIS	A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during <i>n</i> Surveillance Frequency intervals, where <i>n</i> is the total number of systems, subsystems, channels, or other designated components in the associated function.
THERMAL POWER	THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.
TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT)	A TADOT shall consist of operating the trip actuating device and verifying the OPERABILITY of required alarm, interlock, display, and trip functions. The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the required accuracy.

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3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Rod Position Indication

LCO 3.1.7 The Analog Rod Position Indication (ARPI) System and the Demand Position Indication System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each inoperable rod position indicator per group and each demand position indicator per bank.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ARPI per group inoperable for one or more groups.	A.1 Verify the position of the rods with inoperable position indicators by using movable incore detectors*.	Once per 8 hours
	<u>OR</u> A.2 Reduce THERMAL POWER to $\leq$ 50% RTP.	8 hours
B. One or more rods with inoperable position indicators have been moved in excess of 24 steps in one direction since the last determination of the rod's position.	B.1 Verify the position of the rods with inoperable position indicators by using movable incore detectors.	4 hours
	<u>OR</u>	(continued)

~~\*During Cycle 22, the position of Control Rod H-10, Shutdown Bank B, can be determined by verifying gripper coil parameters of the Control Rod Drive Mechanism have not changed state, until the repair of the indication system for this rod is completed.~~

MATERIALS PROPERTIES BASE

CONTROLLING MATERIAL: Upper Shell Plate W10201-1

Limiting ART Values at 35 EFPY: 1/4T, 167°F  
3/4T, 147°F

Curves applicable for heatup rates up to 60°F/Hr for service period up to 35 EFPY  
Heatup Curves include +10°F and -60 psig  
Allowance for instrumentation error.

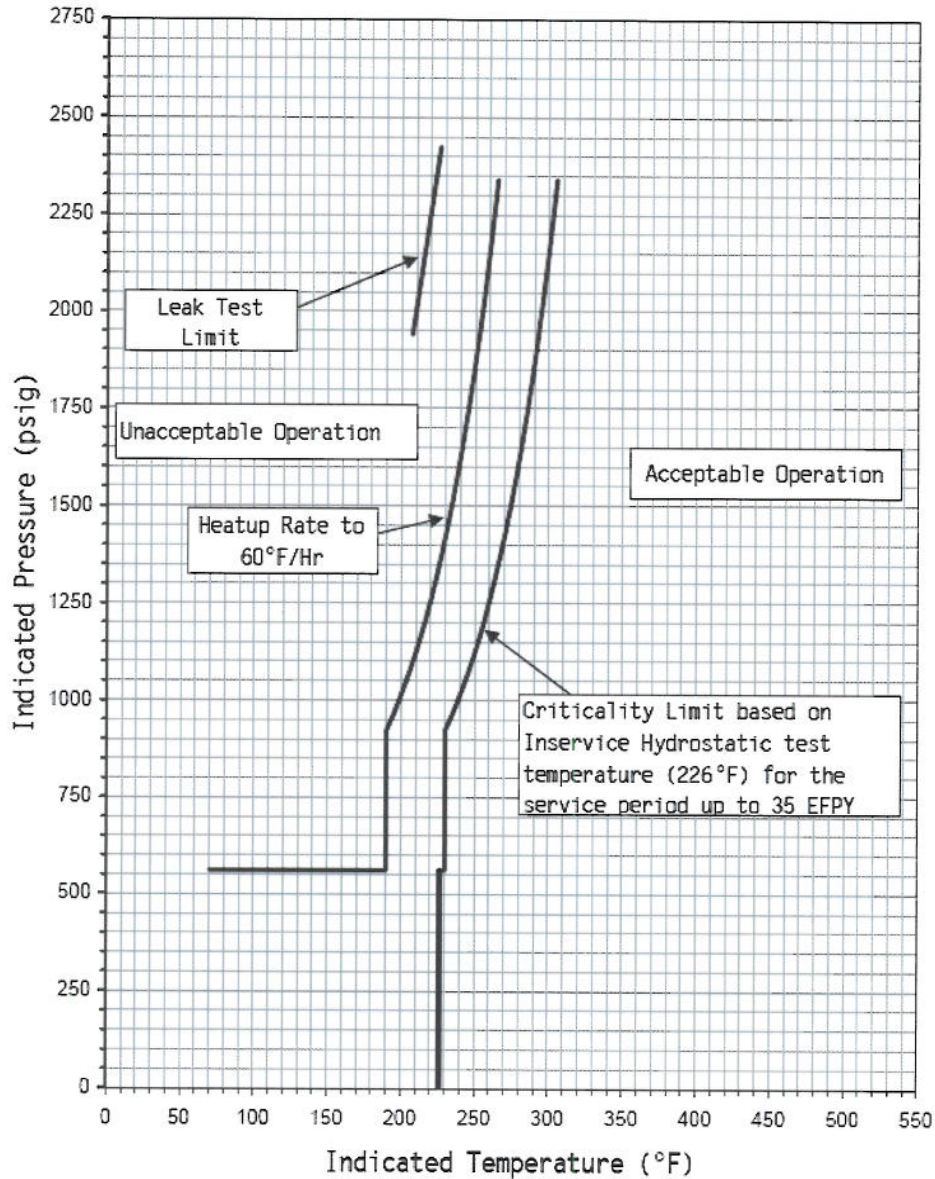


Figure 3.4.3-1  
Reactor Coolant System Heatup Limits  
Applicable Up to 35 EFPY

MATERIALS PROPERTIES BASE

Controlling Material: Upper Shell Plate **W10201-1** and Girth Weld **10-273** Curves applicable for cooldown rates up to 100° F/Hr for the service period up to 35 EFPY.

Limiting ART Values at 35 EFPY:  
 1/4T, 167°F and 242°F  
 3/4T, 147°F and 173°F  
 Curves include +10°F and -60 PSIG Allowance for instrumentation error.

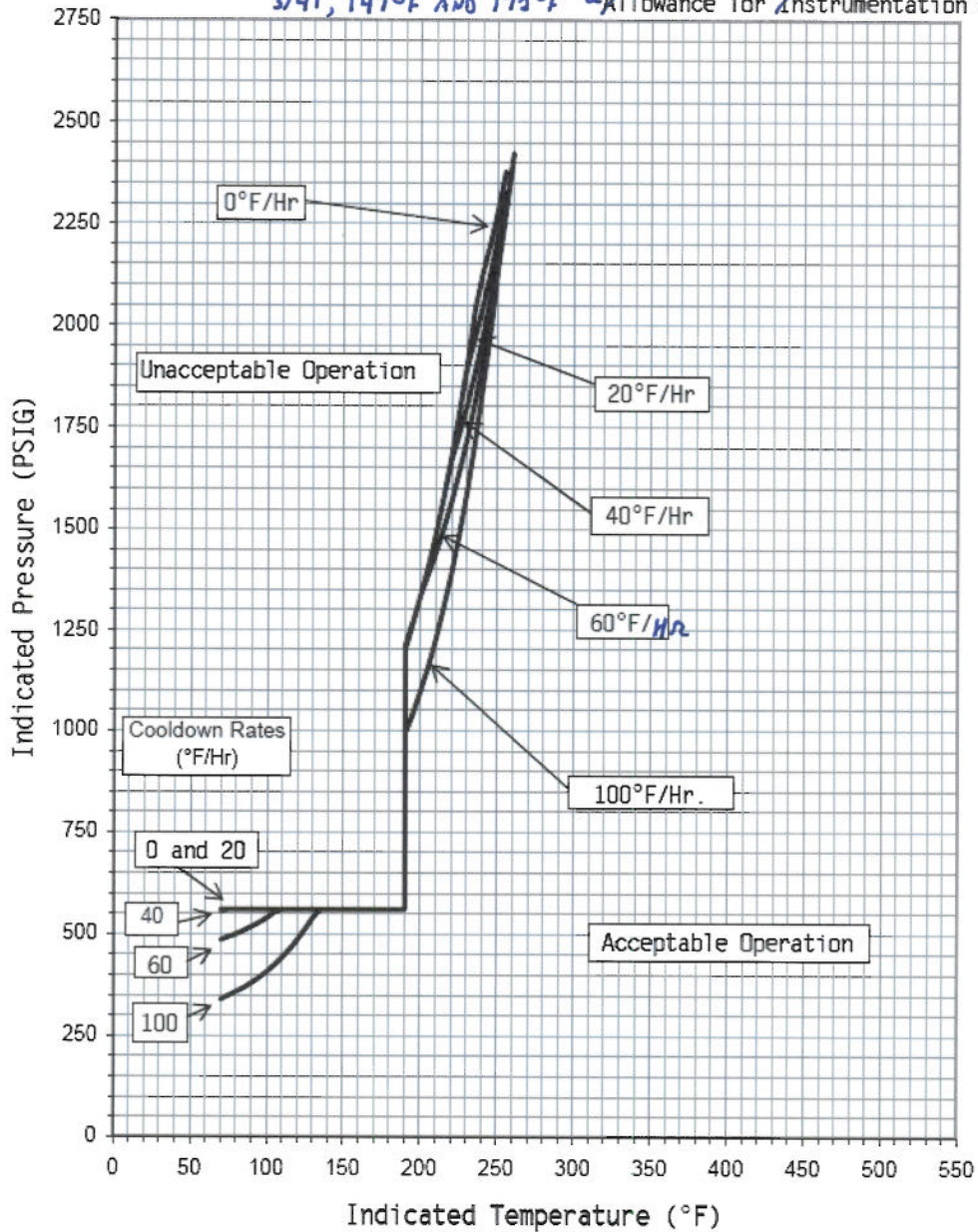


Figure 3.4.3-2  
 Reactor Coolant System Cooldown Limits  
 Applicable Up to 35 EFPY



3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.9 Pressurizer

- LCO 3.4.9 The pressurizer shall be OPERABLE with:
- a. Pressurizer water level  $\leq$  63.3% in MODE 1;
  - b. Pressurizer water level  $\leq$  92% in MODES 2 and 3; and
  - c. Pressurizer heaters OPERABLE with a capacity of  $\geq$  125 kW and capable of being powered from an emergency power supply.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Pressurizer water level not within limit.	A.1 Be in MODE 3 with reactor trip breakers open.	6 hours
	<u>AND</u> A.2 Be in MODE 4.	12 hours
B. Capacity of required pressurizer heaters $\leq$ 125 kW.	B.1 Restore required pressurizer heaters to OPERABLE status.	72 hours
C. Required pressurizer heaters not capable of being powered from an emergency power supply.	C.1 Restore capability to power the required pressurizer heaters from an emergency power supply.	72 hours.

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. Required Action and associated Completion Time for Condition A or B not met.</p>	<p>C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.</p>	<p>6 hours  18 hours</p>
<p>D. Steam driven AFW pump or flow path inoperable in MODE 1, 2, or 3.  <u>AND</u>  One motor driven AFW pump or flow path inoperable in MODE 1, 2, or 3.</p>	<p>D.1 Be in MODE 3. <u>AND</u> D.2 Be in MODE 4.</p>	<p>6 hours  18 hours</p>
<p>E. Four AFW flow paths inoperable in MODE 1, 2, or 3.  <u>OR OR</u>  Three AFW pumps inoperable in MODE 1, 2, or 3.</p>	<p>E.1 -----NOTE----- LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW pump and flow path are restored to OPERABLE status. -----  Initiate action to restore one AFW pump and flow path to OPERABLE status.</p>	<p>          Immediately</p>
<p>F. Required AFW pump and flow path inoperable in MODE 4.</p>	<p>F.1 Initiate action to restore AFW pump and flow path to OPERABLE status.</p>	<p>Immediately</p>



5.5 Programs and Manuals

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5.5.11 Ventilation Filter Testing Program (VFTP) (continued)

- d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below.

<u>ESF Filter System</u>	<u>Delta P</u>	<u>Flowrate</u>
Control Room Emergency	<3.4 inches water gauge	3300 - 4150 ACFM
Spent Fuel Building	<6 inches water gauge	12300 CFM $\pm 10\%$
Containment Purge	<6 inches water gauge	35000 CFM $\pm 10\%$

- e. Demonstrate that the heaters for the Spent Fuel Building ventilation filter system maintains the filter inlet air at  $\leq 70\%$  relative humidity when tested in accordance with ASME N510-1975.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.12 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Waste Gas Decay Tanks, the quantity of radioactivity contained in The Waste Gas Decay Tanks and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

- a. The limits for concentrations of ~~hydrogen and~~ oxygen in the Waste Gas Decay Tanks and a surveillance program to ensure the limits are maintained. Such limits shall be appropriate

(continued)

United States Nuclear Regulatory Commission  
Attachment IV to Serial: RNP-RA/07-0073  
10 Pages (including cover page)

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**

**REQUEST FOR ADMINISTRATIVE CHANGES TO THE  
OPERATING LICENSE AND TECHNICAL SPECIFICATIONS**

**RETYPE OPERATING LICENSE AND TECHNICAL SPECIFICATIONS PAGES**

C. Reports

Carolina Power & Light Company shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

Carolina Power & Light Company shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Fire Protection Program

Carolina Power & Company shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Fire Protection Safety Evaluation Report dated February 28, 1978, and supplements thereto. Carolina Power & Light Company may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

F. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "H. B. Robinson Steam Electric Plant Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 1, 2004, as supplemented by letter dated October 20, 2004.

G. The following programs shall be implemented and maintained by the licensee:

(1) DELETED

(2) DELETED

(3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.

(4) DELETED

H. DELETED

I. DELETED

J. DELETED

K. Updated Final Safety Analysis Report

The Carolina Power & Light Company Updated Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The Carolina Power & Light Company shall complete these activities no later than July 31, 2010, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, the Carolina Power & Light Company may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the Carolina Power & Light Company evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

## 1.1 Definitions

---

SHUTDOWN MARGIN (continued)	<ol style="list-style-type: none"><li>a. All rod cluster control assemblies (RCCAs) are fully inserted except for the single RCCA of highest reactivity worth, which is assumed to be fully withdrawn. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM; and</li><li>b. In MODES 1 and 2, the fuel and moderator temperatures are changed to 547°F.</li></ol>
SLAVE RELAY TEST	A SLAVE RELAY TEST shall consist of energizing each slave relay and verifying the OPERABILITY of each slave relay. The SLAVE RELAY TEST shall include, as a minimum, a continuity check of associated testable actuation devices.
STAGGERED TEST BASIS	A STAGGERED TEST BASIS shall consist of the testing of one of the systems, subsystems, channels, or other designated components during the interval specified by the Surveillance Frequency, so that all systems, subsystems, channels, or other designated components are tested during $n$ Surveillance Frequency intervals, where $n$ is the total number of systems, subsystems, channels, or other designated components in the associated function.
THERMAL POWER	THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.
TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT)	A TADOT shall consist of operating the trip actuating device and verifying the OPERABILITY of required alarm, interlock, display, and trip functions. The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the required accuracy.

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3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Rod Position Indication

LC0 3.1.7 The Analog Rod Position Indication (ARPI) System and the Demand Position Indication System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each inoperable rod position indicator per group and each demand position indicator per bank.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ARPI per group inoperable for one or more groups.	A.1 Verify the position of the rods with inoperable position indicators by using movable incore detectors.	Once per 8 hours
	<u>OR</u> A.2 Reduce THERMAL POWER to # 50% RTP.	8 hours
B. One or more rods with inoperable position indicators have been moved in excess of 24 steps in one direction since the last determination of the rod's position.	B.1 Verify the position of the rods with inoperable position indicators by using movable incore detectors.	4 hours
	<u>OR</u>	(continued)



MATERIALS PROPERTIES BASE

CONTROLLING MATERIAL: Upper Shell Plate W10201-1  
Limiting ART Values at 35 EFPY: 1/4T, 167°F  
3/4T, 147°F

Curves applicable for heatup rates up to 60°F/Hr for service period up to 35 EFPY  
Heatup Curves include +10°F and -60 psig allowance for instrumentation error.

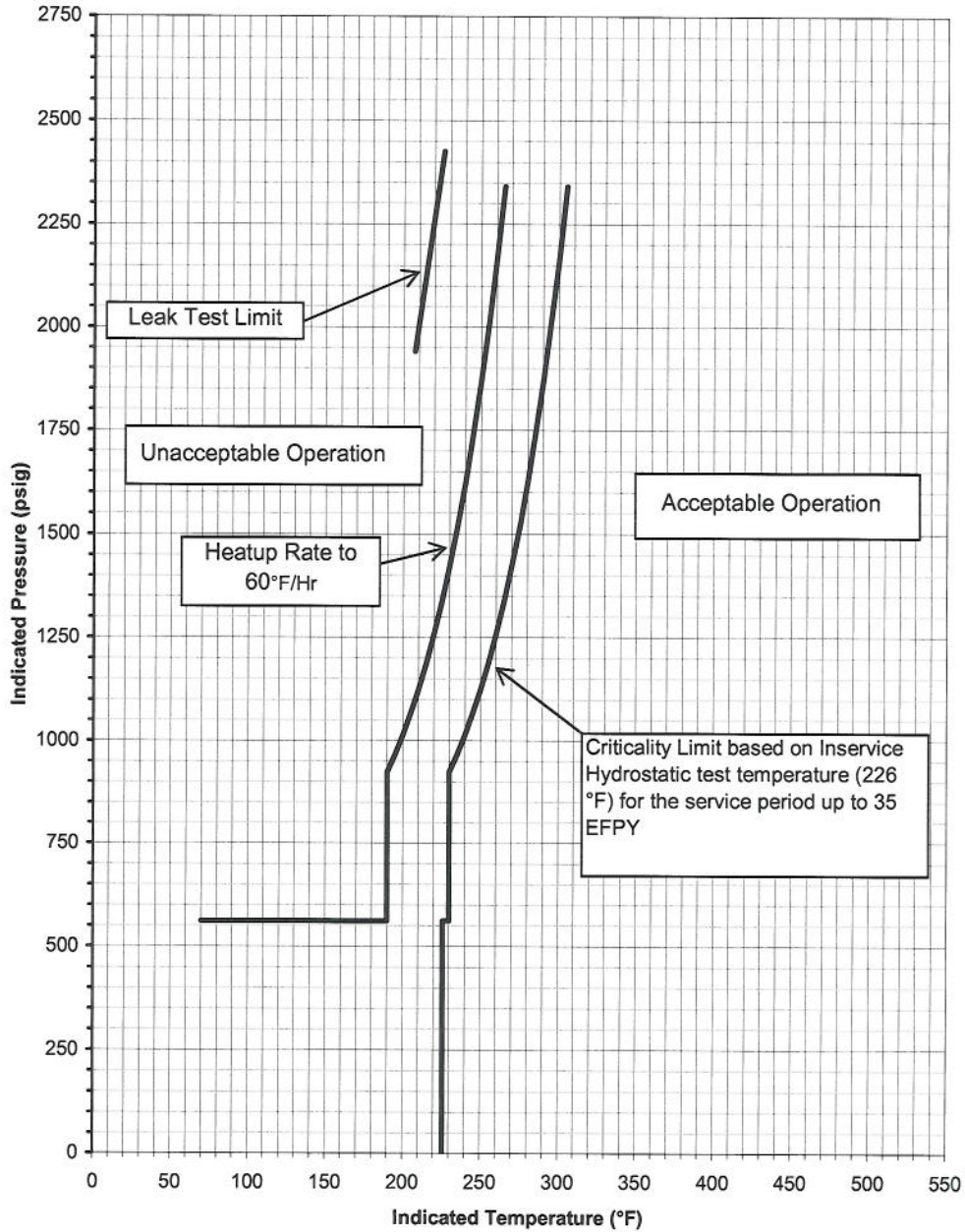


Figure 3.4.3-1  
Reactor Coolant System Heatup Limits  
Applicable Up to 35 EFPY

MATERIALS PROPERTIES BASE  
 Controlling Material: Upper Shell Plate W10201-1 & Girth Weld 10-273  
 Limiting ART Values at 35 EFPY: 1/4T, 167°F & 242°F  
 3/4T, 147°F & 172°F

Curves applicable for cooldown rates up to 100° F/Hr for the service period up to 35 EFPY.  
 Curves include +10°F and -60 PSIG allowance for instrumentation error.

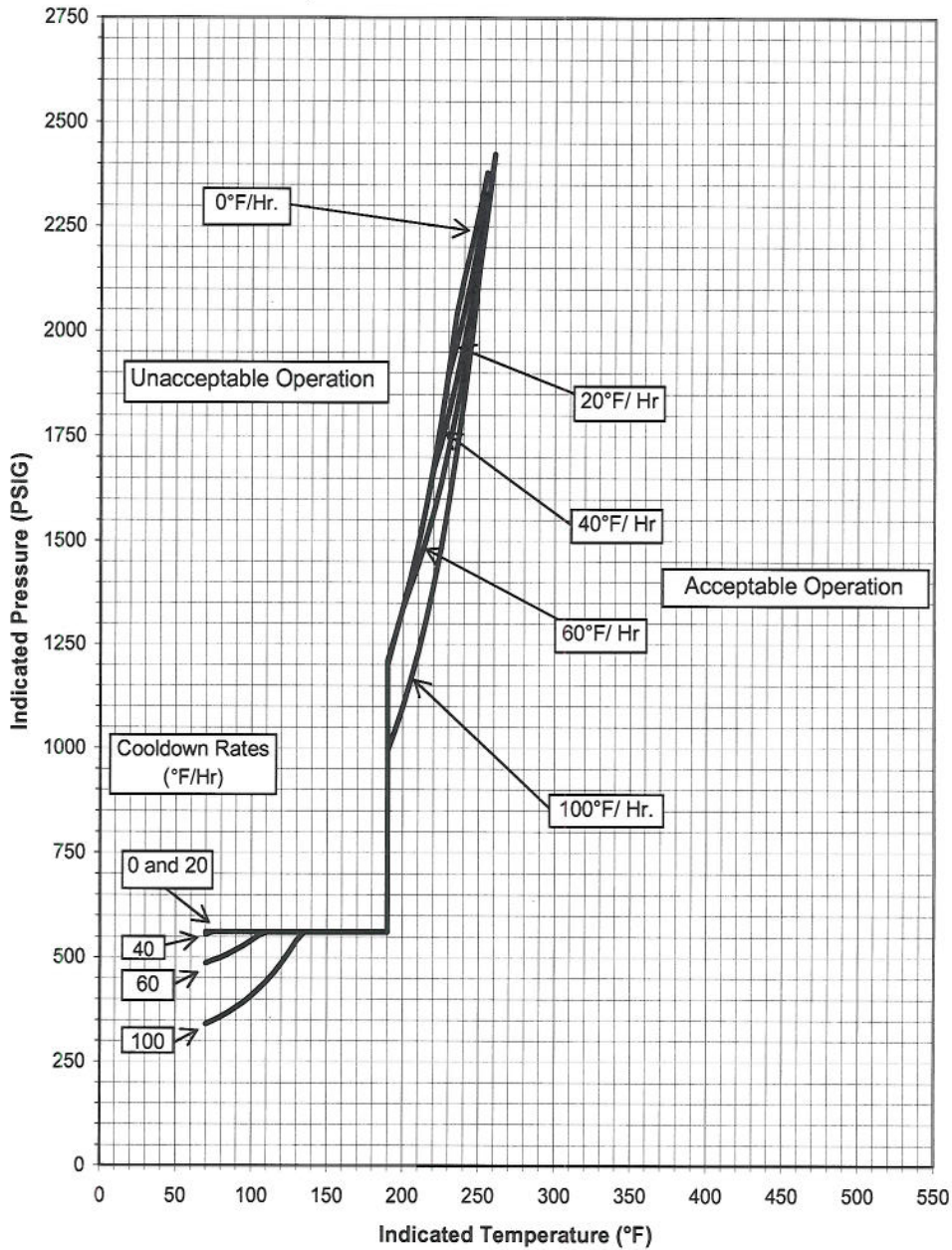


Figure 3.4.3-2  
 Reactor Coolant System Cooldown Limitations  
 Applicable Up to 35 EFPY



3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.9 Pressurizer

LCO 3.4.9 The pressurizer shall be OPERABLE with:

- a. Pressurizer water level # 63.3% in MODE 1;
- b. Pressurizer water level # 92% in MODES 2 and 3; and
- c. Pressurizer heaters OPERABLE with a capacity of \$ 125 kW and capable of being powered from an emergency power supply.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Pressurizer water level not within limit.	A.1 Be in MODE 3 with reactor trip breakers open.	6 hours
	<u>AND</u> A.2 Be in MODE 4.	12 hours
B. Capacity of required pressurizer heaters < 125 kW.	B.1 Restore required pressurizer heaters to OPERABLE status.	72 hours
C. Required pressurizer heaters not capable of being powered from an emergency power supply.	C.1 Restore capability to power the required pressurizer heaters from an emergency power supply.	72 hours.

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. Required Action and associated Completion Time for Condition A or B not met.</p>	<p>C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.</p>	<p>6 hours  18 hours</p>
<p>D. Steam driven AFW pump or flow path inoperable in MODE 1, 2, or 3.  <u>AND</u>  One motor driven AFW pump or flow path inoperable in MODE 1, 2, or 3.</p>	<p>D.1 Be in MODE 3. <u>AND</u> D.2 Be in MODE 4.</p>	<p>6 hours  18 hours</p>
<p>E. Four AFW flow paths inoperable in MODE 1, 2, or 3.  <u>OR</u>  Three AFW pumps inoperable in MODE 1, 2, or 3.</p>	<p>E.1 -----NOTE----- LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW pump and flow path are restored to OPERABLE status. -----  Initiate action to restore one AFW pump and flow path to OPERABLE status.</p>	<p>         Immediately</p>
<p>F. Required AFW pump and flow path inoperable in MODE 4.</p>	<p>F.1 Initiate action to restore AFW pump and flow path to OPERABLE status.</p>	<p>Immediately</p>

5.5 Programs and Manuals

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5.5.11 Ventilation Filter Testing Program (VFTP) (continued)

- d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below.

<u>ESF Filter System</u>	<u>Delta P</u>	<u>Flowrate</u>
Control Room Emergency	<3.4 inches water gauge	3300 - 4150 ACFM
Spent Fuel Building	<6 inches water gauge	12300 CFM <u>±10%</u>
Containment Purge	<6 inches water gauge	35000 CFM <u>±10%</u>

- e. Demonstrate that the heaters for the Spent Fuel Building ventilation filter system maintains the filter inlet air at  $\leq 70\%$  relative humidity when tested in accordance with ASME N510-1975.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.12 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Waste Gas Decay Tanks, the quantity of radioactivity contained in The Waste Gas Decay Tanks and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

- a. The limits for concentration of oxygen in the Waste Gas Decay Tanks and a surveillance program to ensure the limits are maintained. Such limits shall be appropriate

(continued)