

August 25, 2005

L-2005-132 10 CFR 50.90

4001

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

RE: St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 Proposed License Amendments Request For Additional Information Response Control Room Ventilation System and Miscellaneous Minor Changes

By Florida Power & Light Company (FPL) letter L-2003-199 dated September 18, 2003 and pursuant to 10 CFR 50.90, FPL requested to amend Facility Operating Licenses DPR-67 and NPF-16 for St. Lucie Units 1 and 2. The proposed amendments revise the Technical Specification (TS) for control room ventilation systems to model the Combustion Engineering Standard Technical Specifications NUREG-1432 (CE STS). The change includes revising both the Unit 1 and Unit 2 control room ventilation system TS to replace detailed filter testing surveillance requirements with a requirement to test in accordance with the Ventilation Filter Testing Program.

In addition to the above changes, FPL proposed to revise St. Lucie Unit 1 and Unit 2 TS Table 3.3-6, Radiation Monitoring Instrumentation, in order to resolve minor inconsistencies that resulted from changes associated with TS Amendments 184 (Unit 1) and 127 (Unit 2). This change also proposed to correct some minor typographical errors.

Attachment 1 is the FPL response to the NRC request for additional information (RAI) dated June 24, 2004. Attachment 2 provides a revised Determination of No Significant Hazards. Attachments 3 and 4 are complete replacement of the proposed TS page changes for Unit 1 and Unit 2, respectively. These pages incorporate the minor changes requested by the NRC in the subject RAI. Attachments 5 and 6 are replacement smooth retyped TS pages for Unit 1 and 2.

The original Environmental Considerations submitted by FPL letter L-2003-199 remains bounding. In accordance with 10 CFR 50.91(b)(1), a copy of this supplement is being forwarded to the State Designee for the State of Florida.

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Page 2

Please issue the amendment to be effective on the date of issuance and to be implemented within 60 days of receipt by FPL. Please contact George Madden at 772-467-7155 if there are any questions about this submittal.

Very truly yours, William Jefferson Jr Vice President

St. Lucie Plant

WJ/GRM

Attachments

cc: Mr. William A. Passetti, Florida Department of Health

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Page 3

STATE OF FLORIDA)) ss. COUNTY OF ST. LUCIE)

William Jefferson, Jr. being first duly sworn, deposes and says:

That he is Vice President, St. Lucie Plant, for the Nuclear Division of Florida Power & Light Company, the Licensee herein;

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

efferson

STATE OF FLORIDA

COUNTY OF ST LUCIE

Sworn to and subscribed before me

this <u>25</u> day of <u>August</u> 2005 by William Jefferson, Jr., who is personally known to me.

Name of Notary Rublic - State of Florida Leslie J. Whitwell Commission # DD414813 Expires May 12, 2009 nded Trov Fain - Ineur 800-385-7019

(Print, type or stamp Commissioned Name of Notary Public)

St. Lucie Unit 1 & 2 Control Room Ventilation Filter Systems Response to NRC Request for Additional Information

On September 18, 2003, Florida Power and Light Company submitted a license amendment request for the St. Lucie Unit 1 and Unit 2 Control Room Ventilation Systems (along with other minor miscellaneous system change requests). As a result of the FPL submittals and a teleconference between NRC and FPL staffs on June 23, 2004, the NRC requested additional information to assist in their review of the proposed amendments (NRC letter dated June 24, 2004). FPL hereby provides the response to the requested information.

NRC Question 1: All current surveillance TS requirements for ventilation filter testing are not included in the proposed ventilation filter testing program (VFTP). St. Lucie is committed to Regulatory Guide (RG) 1.52, Rev 2 and as such, the proposed VFTP should be in compliance with the guidance of the RG. Therefore, in order for the proposed VFTP to be acceptable all of the current surveillance requirements should be included.

FPL Response 1: All of the Unit 1 and 2 CR ventilation filter testing TS requirements are included in the proposed Ventilation Filter Testing Program (VFTP). The proposed change is modeled after the NUREG-1432 format in that the filter train operational-type surveillance tests are explicitly stated in the LCO/Surveillance section and direction for the post maintenance or preventative maintenance related surveillance tests are stated to be in accordance with the VFTP (Section 6.0 of St Lucie TS).

The Unit 1 and Unit 2 proposed VFTPs for control room ventilation filter train testing list all required TS surveillance acceptance limits. The frequency requirements are met by describing the VFTP (in Section 6.0 of TS) as a program that tests at the "frequencies specified in Regulatory Guide (RG) 1.52, Revision 2." These testing frequencies specify off-normal as well as normal (i.e., "scheduled") testing and match up with current TS testing frequencies.

Off-normal testing requirements include HEPA and adsorber leak testing following any filter or cell replacements, re-verification of adsorber efficiency testing following any filter train contact with foreign fumes and specified airflow distribution following train maintenance activities.

The proposal to delete Unit 2 TS 4.7.7.c.1 and 4.7.7.c.2 is an administrative deletion only as these two requirements are delineated in the RG 1.52 in-place testing requirements which the proposed VFTP and Unit 2 UFSAR is committed to follow.

NRC Question 2: In addition, proposed items k.1 and k.2 request that in-place testing for emergency safety features show a penetration and bypass of \leq 1% for high efficiency particulate air filters and charcoal adsorbers. This position is not consistent with RG 1.52. In accordance with the staff's position on this issue, as outlined in RG 1.52,

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 1 Page 2

systems penetration and bypass for the stated systems and situations should be <.05%, therefore the proposed VFTP should be revised and made consistent with the RG, or justification should be provided for the higher limit.

FPL Response 2: As confirmed by the November 8, 1974 St. Lucie Unit 1 SER, the proposed control room filtration system design was accepted by the NRC as originally presented with the additional stipulation that charcoal attributes and charcoal/HEPA testing requirements of RG 1.52 (Rev 0) were adopted. The plant complied and the operating license was granted. These requirements dealt with HEPA and charcoal efficiencies as well as the necessary attributes of the activated charcoal. Adoption of the in-place testing criteria of the RG was not cited as being conditional for design acceptance.

Review of past surveillance test results indicates that the Unit 1 design can meet this lower limit. FPL therefore accepts the NRC request to and will abide by the in-place HEPA (DOP) and charcoal (gas) testing criteria of $\leq .05\%$ bypass leakage as recommended by RG 1.52, Rev 2.

The revised marked-up Unit 1 TS page has been included for your review and approval.

The Unit 2 control room filtration system was designed and licensed to all RG 1.52 (Rev 2) requirements and therefore does not require any changes to this particular TS.

NRC Question 3: Surveillance requirements (SR) 4.7.7.1.a (Unit 1) and 4.7.7.a (Unit 2) (verification that control room air temperature [<120° F] are being deleted.)

The Licensee is requested to provide a plant-specific technical justification for deletion. The purpose of a temperature limit is for both equipment operability and human habitability in accordance with GDC 19. The Licensee states, and the staff agrees, that this surveillance does not appear in the Combustion Engineering Standard Technical Specifications. However, since this is currently a requirement in the St. Lucie Technical Specifications (TSs), please provide a plant-specific rationale for the deletion, and indicate how this parameter will be controlled outside of the TS.

FPL Response 3: Upon further review of this specification (including identification of a similar surveillance in the CE STS) St. Lucie Plant withdraws the request to delete Surveillance requirements 4.7.7.1.a (Unit 1) and 4.7.7.a (Unit 2) from St. Lucie Plant TS.

NRC Question 4: SRs 4.7.7.1.e.3 (Unit 1) and 4.7.7.e.3 (Unit 2) are being revised to allow for conducting control room pressure tests on a staggered basis.

For this request, the Licensee should provide a clearer description of what is requested. The currently specified test interval (each ventilation system at least once per 18 months) requires testing both trains every 18 months with the interval between the test of each train ranging from one train right after the other, to almost the entire 18 months. St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 1 Page 3

Please describe the current practice for scheduling the affected surveillance, so that the increased interval may be accurately characterized. The proposed change, to test one train every 36 months on a staggered test basis, will result in testing each train on a 36 month interval, with each test occurring every 18 months on the alternate train. Please provide a technical basis for increasing the test interval for a train from 18 months to 36 months. Also, state how you will transition to the new test interval.

FPL Response 4: In light of NRC Generic Letter (GL) 2003-01, Control Room Habitability, and its uncertain future requirements, St. Lucie withdraws for now our request to change the control room pressurization surveillance interval to that as currently required by CE STS.

NRC Question 5: The proposed applicability for the fuel storage pool ventilation system gaseous and particulate monitors is "Whenever recently irradiated fuel is in the spent fuel pool". Why is it not "During movement of recently irradiated fuel assemblies in the spent fuel pool?" This is more consistent with the Technical Specification Task Force-51 and the STS for an applicability statement for a limiting condition for operation associated with mitigating or monitoring a fuel handling accident.

FPL Response 5: The proposed wording for Unit 1 is consistent with the applicability requirements of the radiation monitors' associated TS ventilation system, Unit 1 TS 3.9.12, Spent Fuel Pool Ventilation System. The proposed wording for Unit 2 has been changed to be consistent with the applicability requirements for the associated TS ventilation system, Unit 2 TS 3.6.6.1, Shield Building Ventilation System. [Note that Unit 2's Shield Building Ventilation System performs both a shield building and a fuel pool area evacuation function.]

Although adequate for Unit 1, the standard TS wording does not sufficiently bound the Unit 2 shield building ventilation system TS applicability because it does not include the condition of crane operations with loads over recently irradiated fuel. The purpose of the administrative change was to align the proposed wording of the radiation monitors' with the previously approved TS applicability requirements of the associated ventilation systems. Although the revised Unit 2 wording differs from the standard TS, it is consistent with the currently approved Unit 2 ventilation system applicability.

NRC Question 6: <u>Unit 2 only</u>:

In Attachment 1, Page 2, the proposed markup for TS 3.7.7.1 (Insert 1) associated with the 2^{nd} and 3^{rd} bullets is not included. The mark-up designated Insert 1 on Page 8 is associated with Administrative Controls. Please provide corrected version.

FPL Response 6: The Unit 1 marked-up TS page (TS 3.7.7.1) was inadvertently placed where the Unit 2 marked-up TS page 3/4 7-17(TS 3.7.7) belongs. The Unit 2 marked-up TS page 3/4 7-17 is included with this supplement. The original submittal did include the retyped Unit 2 TS page 3/4 7-17. (Note that the marked-up Unit 2 page is all inclusive and does not reference any associated "inserts.")

Revised No Significant Hazards Determination

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

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

The proposed changes to the St. Lucie Unit 1 & 2 Technical Specifications will adopt the format of the NUREG-1432 Combustion Engineering Standard Technical Specifications for the Unit 1 control room emergency ventilation system and the Unit 2 control room emergency air cleanup system. Additionally, the Ventilation Filter Testing Program of the CE STS is being adopted for the aforementioned ventilation systems. No changes are being made to the methods or scope of any testing. A change involving a more stringent acceptance criteria for in-place HEPA and charcoal adsorber testing for Unit 1 components is a change in a conservative direction.

The proposed changes also correct mode applicability requirements for the containment isolation radiation monitor (both units) and the fuel storage pool gaseous and particulate monitors (both units). These corrections are necessary in order to restore consistency with related technical specification requirements for the containment isolation system and associated fuel pool area ventilation systems.

The equipment and systems involved are associated with accident mitigation. The surveillance testing of this equipment has no bearing on the initiation of an accident previously evaluated nor on the probability of any accident previously evaluated.

Implementing the proposed changes does not significantly increase the consequences of an accident previously evaluated. With the exception of the Unit 1 in-place HEPA and charcoal adsorber leak testing, the performance requirements and acceptance criteria for the affected ventilation systems are not being changed. The in-place HEPA and charcoal adsorber leak testing acceptance criteria have been changed to more stringent industry-standardized requirements which have no effect on the probability of, and no increase in the

consequences of any previously analyzed accidents. The ability of the affected systems to mitigate the effects of postulated accidents is not diminished by the proposed change.

The changes being proposed do not affect assumptions contained in the plants' safety analyses or the physical design of the plants, nor do they affect other technical specifications that preserve safety analysis assumptions. Therefore, operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously analyzed.

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

The proposed amendments do not involve any changes to the operational requirements, present any adverse performance of the affected systems, nor do they involve the addition or modification of any plant equipment. As such, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The margin of safety as defined by 10 CFR Part 100 has not been significantly reduced. There will be no decrease in the ability of the affected systems to perform their intended safety functions as assumed in accident analyses. The proposed changes do not alter the bases for assurance that safety-related activities are performed correctly or the basis for any Technical Specification related to the establishment of or maintenance of a safety margin.

Summary

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

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 3 Page 1

Attachment 3

St. Lucie Unit 1

Planned Marked-up Technical Specification Pages

TS Pages

6-15b

6-15c (For Information Only)

3/4 4-1d

PLANT SYSTEMS

CONTROL ROOM EMERGENCY VENTILATION SYSTEM 3/4.7.7

LIMITING CONDITION FOR OPERATION

- The control room emergency ventilation system shall be OPERABLE with: 3.7.7.1
 - a. Two booster fans,
 - Two isolation valves in each outside air intake duct. b.
 - Two isolation valves in the toilet area air exhaust duct, C.
 - d. One filter train,
 - At least two air conditioning units, and e.
 - f. Two isolation valves in the kitchen area exhaust duct.

APPLICABILITY: MODES 1, 2, 3 and 4, 5 and 6: 05 During movement of irrodiated fuel assemblies.

ACTION:

- MODES 1, 2, 2 and 4: a. With one With one booster fan inoperable, restore the inoperable fan to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - b. With one isolation valve per air duct inoperable, operation may continue provided the other isolation valve in the same duct is maintained closed; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - With the filter train inoperable, restore the filter train to OPERABLE status C. within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - With only one air conditioning unit OPERABLE, restore at least two air d. conditioning units to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES Sand 6 or during movement of irradicted ful assemblies : FINSERT 17

ST. LUCIE - UNIT 1

Amendment No. 160

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 3 Page 3

INSERT1

- a. With one booster fan inoperable, restore the inoperable fan to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency ventilation system in the recirculation mode or suspend movement of irradiated fuel assemblies.
- b. With one isolation value in an air duct inoperable, maintain the other isolation value in the same air duct closed or suspend movement of irradiated fuel assemblies.
- c. With the filter train inoperable, suspend movement of irradiated fuel assemblies.
- d. With only one air conditioning unit OPERABLE, restore at least two air conditioning units to OPERABLE status within 7 days or suspend movement of irradiated fuel assemblies.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 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 $\leq 120^{\circ}$ F.
- b. At least once per 31 days by:
 - 1. Initiating flow through the HEPA filter and charcoal adsorber train and verifying that each booster fan operates for at least 15 minutes.
 - 2. Starting (unless already operating) each air conditioning unit and verifying that it operates for at least 8 hours.
- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housing, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 - -1. Verifying that the charcoal adsorbers remove \geq 99% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with AMSI N510-1975 while operating the ventilation system at a flow rate of 2000 cfm \pm 10%.
 - -2.- Verifying that the HEPA filter banks remove \geq 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 2000 cfm \pm 10%.
 - A. Verifying that a laboratory analysis of a carbon sample from either at least one test canister of at least two carbon samples removed from one of the charcoal adsorbers demonstrates a removal efficiency of ≥ 97.5% for radioactive methyl iodide when the sample is tested in accordance with ASTM D3803-1989 (30°C, 70% RH). The carbon samples not obtained from test canisters shall be prepared by either.
 - Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed, or

By performing required control room amergency ventilation system Filter testing w accordance with the Ventilation Filter Testing Program

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 3 Page 5

PLANT SYSTEMS

SURVEILLANC	E REC	QUIREMEN	TS (Continued)		······································	
		b) Empty tray, r sampl length	ving a longitudinal nixing the adsorbe les at least two incl n equal to the thick	sample from an a nt thoroughly, an hes in diameter a ness of the bed.	adsorber Id obtaining and with a	
	4.	Veritying a system ope N510-1975.	system flow rate of ration when tested	12000 cfm <u>+</u> 10% I in accordance v	6 dyring vitt ANSI	
d.	After	every 720 h	iours of system op	eration by either:	/	
	1.	Verifying th obtained fro efficiency of the sample (30°C, 70%	at a laboratory ana orn a test canister of $f \ge 07.5\%$ for radio is tested in accord RH); or	lysis of a carbon lemonstrates a re active methyl iod ance with ASTM	emoval emoval lide when D3803-1989	
	2.	Verifying the bon sample for radioacti in accordan the samples	at a laboratory ana s demonstrate a re- ive methyl odide w ice with ASTM D38 s are prepared by e	lysis of at least t emoyal efficiency hen the samples 108-1989 (30°C, other:	wo car- y of ≥ 97.5% s are tested 70% RH) and	
	;	a) Empty tray, n sampl length	ving one entire bod nixing the adsorber es at least two incl equal to the thickr	from a removed ht thoroughly, an hes in diameter a hess of the bed, a	l adsorber d obtaining and with a or	
	I	b) Empty tray, n sampl length	ring a longitudinal s nixing the adsorber es at least two incl equal to the thickr	sample from an a nt thoroughly, an nes in diameter a ness of the bed.	adsorber d obtaining and with a	
		Subsequent obtaining th ed OPERAE	t to reinstalling the e carbon sample, t BLE by also:	adsorbentray us the system shall	ed for be demonstrat-	
	:	a) Verify) of a ha when t AMST I systen	ng that the charco alogenated hydroca they are tested in-p N510-1975 while o n at a flow rate of 2	al adsorbers ram arbon refrigerant place in accordal perating the ven 2000 cfm <u>+</u> 10%,	nove ≥ 99% test gas ce with tilation and	
	1 /	b) Verifyi of the with Al system	ng that the HEPA i DOP when they ar NSI N510-1975 wh n at a flow rate of 2	filter banks remo e tested in-place hile operating the 2000 cfm <u>+</u> 10%.	eve ≥ 99% e in accordance e ventilation	
ST. LUCIE - UNIT	1		3/4 7-2	2	Amendment No. 167	

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PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d At least once per 18 months by:
 - Verifying that the pressure drop across the combined HEPA filters and charcoal edsorber banks is < 4.15 inches Water Gauge while operating the ventilation system at a flow rate of 2000 cfm ± 10%.
 - I. 2: Verifying that on a containment isolation signal the system automatically isolates the control room within 35 seconds and switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
 - 2.3. Verifying that the system maintains the control room at a positive pressure $\geq 1/8$ inch W.G. relative to the outside atmosphere during system operation with ≤ 450 cfm outside air intake.
 - -f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove 299% of the DOR when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 2000 cfm 10%.
 - -g.- After each complete or patial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove \geq 99% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 2000 cfm ± 10%.

TABLE 3.3-6 RADIATION MONITORING INSTRUMENTATION

<u>INS</u>	<u>rri</u>	JMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM SETPOINT	MEASUREMENT RANGE	ACTION
1.	AR	EA MONITORS					
	a.	Fuel Storage Pool Area	1	•	<u>≤</u> 15 mR/hr	10 ⁻¹ – 10 ⁴ mR/hr	13
	b.	Containment (CIS)	3	-6-2+**	<u>≤</u> 90 mR/hr	1 – 10 ⁵ mR/hr	16
	c.	Containment Area – Hi Range	1	1, 2, 3, & 4	<u>≤</u> 10 R/hr	1 – 10 ⁷ R/hr	15
2.	PR	OCESS MONITORS					
	a.	Containment					
		I. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 – 10 ⁶ cpm	14
		ii. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 – 10 ⁶ cpm	14
	b.	Fuel Storage Pool Area Ventilation System					
		i. Gaseous Activity	1	**	***	10 ⁻⁷ – 10 ⁵ μCi/cc	12
		ii. Particulate Activity	1	**	***	1 – 10 ⁶ cpm	12

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With/fuel in the storage pool or building. With/fuel in the storage pool or whenever there is fuel mevement within the pool or orang- ** -operation with loads over the storage pool.-

*** The Alarm Setpoints are determined and set in accordance with requirements of the Offsite Dose Calculation Manual.

During movement of recordly islaviced fuel assemblies within containment. ****

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ST. LUCIE - UNIT 1

3/4 3-22

Amendment No. 59, 423, 134

ADMINISTRATIVE CONTROLS

(2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.
- A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.
- h. Containment Leakage Rate Testing Program

A program to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. This program is in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," as modified by the following exception(s):

- a) Bechtel Topical Report, BN-TOP-1 or ANS 56.8-1994 (as recommended by R.G. 1.163) will be used for type A testing.
- b) The first Type A test performed after the May 1993 Type A test shall be no later than May 2008.

The peak calculated containment internal pressure for the design basis loss of coolant accident P_{a} , is 39.6 psig. The containment design pressure is 44 psig.

The maximum allowed containment leakage rate, L_a , at P_a , shall be 0.50% of containment air weight per day.

Leakage rate acceptance criteria are:

- (20.60 }
- a. Containment leakage rate acceptance criterion is ≤ 1.0 L_a. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are ≤ 0.0 L_a for the Type B and C tests, ≤ 0.75 L_a for Type A tests, and ≤ 0.27 L_a for secondary containment bypass leakage paths.
- b. Air lock testing acceptance criteria are:
 - 1) Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 - For the personnel air lock door seal, leakage rate is < 0.01 L_a when pressurized to ≥ 1.0 P_a.
 - For the emergency air lock door seal, leakage rate is < 0.01 La when pressurized to > 10 psig.

ST. LUCIE - UNIT 1

6-15b

Amendment No. 69, 86, 423, 449, 187

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ADMINISTRATIVE CONTROLS (continued)

The provisions of T.S. 4.0.2 do not apply to test frequencies in the Containment Leak Rate Testing Program.

The provisions of T.S. 4.0.3 are applicable to the Containment Leak Rate Testing Program.

I. Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2 and 3 components (pumps and valves). The program shall include the following:

 Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code* and applicable addenda as follows:

ASME Boller and Pressure Vessel Code*

and applicable Addenda terminology for Inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice testing activities;
- c. The provisions of Specification 4.0.3 are applicable to inservice testing activities; and
- d. Nothing in the ASME Boiler and Pressure Vessel Code* shall be construed to supersede the requirements of any technical specification.

J. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- 1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- 2. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - a. a change in the TS incorporated in the license; or
 - b. a change to the updated UFSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- 3. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.

ST. LUCIE - UNIT 1

INSERT 2

6-15c

Amendment No. 449, 453, 176

^{4.} Proposed changes that meet the criteria of Specification 6.8.4.j.2.a or 6.8.4.j.2.b, above, shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

Where ASME Boiler and Pressure Vessel Code is referenced it also refers to the applicable portions of ASME/ANSI OM-Code, "Operation and Maintenance of Nuclear Power Plants," with applicable addenda, to the extent it is referenced in the Code.

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 3 Page 10

INSERT 2

k. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2.

 Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1975 at the system flow rate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Ventilation	2000 <u>+</u> 200 cfm

2. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass $\leq 0.05\%$ when tested in accordance with ANSI N510-1975 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Ventilation	2000 <u>+</u> 200 cfm

3. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and the relative humidity specified below.

ESF Ventilation System	<u>Penetration</u>	<u>RH</u>
Control Room Emergency Ventilation	<u><</u> 2.5%	70%

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

ESF Ventilation System	<u>Delta P</u>	Flowrate
Control Room Emergency Ventilation	<4.15" W.G.	2000 <u>+</u> 200 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

REACTOR COOLANT SYSTEM

COLD SHUTDOWN - LOOPS FILLED

LIMITING CONDITION FOR OPERATION

3.4.1.4 At least one shuldown cooling loop shall be OPERABLE and in operation and either:

- a. One additional shutdown cooling loop shall be OPERABLE[#], or
- b. The secondary side water level of at least two steam generators shall be greater than 10% of narrow range indication.

APPLICABILITY: MODE 5 with reactor coolant loops filled ##.

ACTION:

- a. With less than the above required loops OPERABLE or with less than the required steam generator level, within one (1) hour initiate corrective action to return the required loops to OPERABLE status or to restore the required level.
- b. With no shutdown cooling loop in operation, suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet SHUTDOWN MARGIN of Technical Specification 3.1.1.2 and within one (1) hour initiate corrective action to return the required shutdown loop to operation.

SURVEILLANCE REQUIREMENTS

4.4.1.4.1.1 The secondary side water level of at least two steam generators when required shall be determined to be within limits at least once per 12 hours.

4.4.1.4.1.2 At least one shutdown cooling loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

A reactor coolant pump shall not be started with two Idle loops unless the secondary water temperature of each steam generator is less than 30°F above each of the Reactor Coolant System cold leg temperatures.

ST. LUCIE - UNIT 1

3/4 4-1d

Amendment No. 56, 81, 103, 179-

The shutdown cooling pump may be de-energized for up to 1 hour provided 1) no operations are permitted that would cause introduction into the RCS, coolant with boron concentration less than required to meet the SHUTDOWN MARGIN of Technical Specification 3.1.1.2 and 2) core outlet temperature is maintained at least 10°F below saturation temperature.

[#] One shutdown cooling loop may be inoperable for up to 2 hours for surveillance testing provided the other shutdown cooling loop is OPERABLE and in operation.

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 4 Page 1

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Attachment 4

St. Lucie Unit 2

Proposed Mark-up Technical Specification Pages For Information

<u>TS Pages</u>

3/4 7-17
3/4 7-18
3/4 7-19
3/4 3 - 25
3/4 3-27
6-15d
INDEX iii
3/4 9-9

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 4 Page 2

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACS)

LIMITING CONDITION FOR OPERATION

3.7.7 Two independent control room emergency air cleanup systems shall be OPERABLE with:

- a. A filter train and its associated fan per system, and
- b. At least one air conditioning unit per system, and
- c. Two isolation valves in the kitchen area exhaust duct, and
- d. Two isolation valves in the toilet area exhaust duct, and
- e. Two isolation valves in each (North and South) air intake duct.

APPLICABILITY: ALL MODES 1, 2, 3, 4, 5 and lear during movement ACTION: of corradiated fue assemblies

MODES 1, 2, 3, and 4:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both control room emergency air cleanup systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the next 30 hours.
- c. With an isolation valve in an air intake duct or air exhaust duct inoperable, operation may continue provided the other isolation valve in the same air intake or air exhaust duct is maintained closed; otherwise be in at least HOT STANDBY in the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6 par during movement of rrvadiated fuel assemblies

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode. ar SvSpend.
- and maintain operation of the remaining OFERABLE control form
 emergency air cleanup system in the recirculation mode. Or SUSpend.
 movement of creative for a system billes
 b. With both control room emergency air cleanup systems inoperable,
 suspend all operations involving CORE ALTERATIONS or positive
 reactivity changes. more ment of irradicated free assemblies.
- c. With an isolation value in an air intake duct or air exhaust duct inoperable, maintain the other isolation value in the same air intake or air exhaust duct closed or suspend any core alterations or positive reactivity addition operations. Suspend microlements furnal and the function of the same and the same are altered and the same are alter

fuel Assemblies.

Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SHUTDOWN MARGIN.

ST. LUCIE - UNIT 2

3/4 7-17

Amendment No. 122

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7	Ea	ch cor	trol room emergency a	air cleanup system s	hall be demonstrated OPERABL	.E:
	a.	At less	east once per 12 hours than or equal to 120°	s by verifying that the F.	control room air temperature is	;
	b.	At it the for a con	east once per 31 days HEPA filters and chard at least 15 minutes and ditioning unit and verif	by (1) initiating, from coal adsorbers and v d (2) starting, unless ying that it operates	the control room, flow through rerifying that the system operate already operating each air for at least 8 hours.	S
	c.	At la HEI che	east once per 18 mont A filter or charcoal ad mical release in any ve	hs or (1) after any si Isorber housings, or entilation zone comm	ructural maintenance on the (2) following painting, fire or nunicating with the system by:	
		-1.	Performing a visual ANSI N-510-1980.	examination of CRE	ACS in accordance with	
		2 :	Performing air flow o accordance with AN average flow per uni	listribution to HEPA SI N-510-1980. The t.	filters and charcoal adsorbers in distribution shall be $\pm 20\%$ of the distribution) 10
		<i>फे</i> :	Verifying that the chi hydrocarbon refriger ANSI N-510-1980 wi	rcoal adsorbers ren ant test gas when th hile operating the sy	hove \geq 99.95% of a halogenated ey are tested in accordance with stem at 2000 cfm \pm 10%.	5 h
		-4:	Verifying that the HE are tested in accorda system at 2000 cfm	PA filters remove \geq ance with ANSI N-51 \pm 10%.	99.95% of the DOP when they 0-1980 while operating the	
ł		.5.	Verifying a system fl	ow rate of 2000 cm	<u>+</u> 10%.	
	æ.	Afte 31 c cani whe	r every 720 hours of c lays after removal that sters demonstrates a n tested in accordance	harcoal adsorber op a 4-inch laboratory removal efficiency o e with ASTM D3803	election by verifying within sample from the Installed sample $\geq 99.825\%$ for methyl iodide 1989 (38°C, 95% RH).	e
	-0,-	At le	east once per 18 mont	hs by:	\sim	
		- 1 :	Verifying that the pre filters and charcoal a while operating the s	essure drop across ti dsorber banks is les ystem at a flow rate	the combined prefitters, HEPA is than 7.4 inches Water Gauge of 2000 cfm \pm 10%.	
لمبر	\sim	\sim	~~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\sim
(By f filte	perfor iv ti	ming stin	required Control 5 in accordance	e with the Ve	vey air cleanup syst Ntilation Filter Testing Pr	èn ogran
<u>}</u>	\sim	\sim	\sim	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
ST. LUCIE	- UNIT	2		3/4 7-18	Amendment No. 107	

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 4 Page 4

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)	
 Yerifying that on a containment isolation test signal from Unit 2, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks. 	
9: ?. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere during system operation with \leq 450 cfm outside air intake.	
-4.3. Verifying that on a containment isolation test signal from Unit 1 the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks.	
4. An expect complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the tapP when they are tested in-place in accordance with ANSI N-510-1980 while operating the system at a flow rate of 2000 cfm \pm 10%.	ζ
-g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers receive greater than or equal to 99 95% of a halogenated hydrocarbon refrigerent test gas when they are tested in-place in accordance with ANSI N-510 1980 verifie operating the system at a flow rate of 2000 cfm ± 10%.	Ş
d. At least once per 18 months by:	

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3/4 7-19

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TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area					
	I. Criticality and Ventilation System Isolation Monitor	4	*	<u><</u> 20 mR/hr	10 ⁻¹ – 10 ⁴ mR/hr	22
	b. Containment Isolation	3	-0-	<u>≤</u> 90 mR/hr	1 – 10 ⁷ mR/hr	25
	c. Control Room Isolation	1 per intake	ALL MODES	2x background	10 ⁻⁷ 10 ⁻² μCl/cc	26
	d. Containment Area – Hi Range	1	1, 2, 3 & 4	Not Applicable	1 - 10 ⁷ R/hr	27
2.	PROCESS MONITORS					
	a. Fuel Storage Pool Area Ventilation System					
	i. Gaseous Activity	1	**	***	10 ⁻⁷ – 10 ⁻² μCi/cc	24
	ii. Particulate Activity	1	**	***	1 – 10 ⁶ cpm	24
	b. Containment					
	i. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 ⁻⁷ – 10 ⁻² μCi/cc	23
	II. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	1 – 10 ⁶ cpm	23
*	With fuel in the storage pool or building	Ductor	(of	recently included	fuel assemblins	
**	With irradiated fuel in the storage pool or building.	whonever there is	fuel movement)	i thin the pool or ₄ crar	ne operations	
***	with loads over the storage pool. Accently	· "maded fuel	assemblies in	the spent fuel s	tonge poul,	
	Calculation Manual.	anu set in accorda	ince with requirem	ients of the Utisite I	Jose	

* to the During movement of recently inscripted fuel assemblies within containment Mon 25,61 ST. LUCIE . UNIT 2

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St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 4 Page 6

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 22 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 23 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 24 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, suspend all operations involving movement of fuel within the spent fuel storage pool. and orane operations with loads over the spent fuel storage pool.
- ACTION 25 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 26 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- ACTION 27 With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
 - Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - 2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ST. LUCIE - UNIT 2

3/4 3-27

Amendment No. 73

ADMINISTRATIVE CONTROLS (continued)

j. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- 1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- 2. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - a. a change in the TS incorporated in the license; or
 - b. a change to the updated UFSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.
- 4. Proposed changes that meet the criteria of Specification 6.8.4.j.2.a or 6.8.4.j.2.b, above, shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

[INSERT 1]

Amendment No. 117

INSERT 1

k. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2.

1. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1980 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Air Cleanup	2000 <u>+</u> 200 cfm

 Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass < 0.05% when tested in accordance with ANSI N510-1980 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Air Cleanup	2000 <u>+</u> 200 cfm

Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and the relative humidity specified below.

ESF Ventilation System	Penetration	<u>RH</u>
Control Room Emergency Air Cleanup	<u><</u> 0.175%	95%

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

ESF Ventilation System	<u>Delta P</u>	Flowrate
Control Room Emergency Air Cleanup	<7.4" W.G.	2000 <u>+</u> 200 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

IN	DEX	
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SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS			
SECTIO	<u>v</u>	PAGE	
2.1	SAFETY LIMITS		
2.1.1	REACTOR CORE	2-1	
2.1.1.1	DNBR	2-1	
2.1.1.2	PEAK INEAF DEAT FOTE		
2.1.2	REACTOR COOLANT SYSTEM PRESSURE		
2.2	LIMITING SAFETY SYSTEM SETTINGS		
2.2.1	REACTOR TRIP SETPOINTS	2-2	

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ST. LUCIE - UNIT 2

111

Amendment No. 103,117

REFUELING OPERATIONS

LOW WATER LEVEL

LIMITING CONDITION FOR OPERATION

3.9.8.2 The independent shutdown cooling loops shall be OPERABLE and at least one shutdown cooling shall be in operation.

<u>APPLICABILITY</u>: MODE 6 when the water level above the top of the reactor pressure vessel flange is less than 23 feet.

ACTION:

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- a. With less than the required shutdown cooling loops OPERABLE, within 1 hour initiate corrective action to return the required loops to OPERABLE status, or to establish greater than or equal to 23 feet of water above the reactor pressure vessel flange, as soon as possible.
- b. With no shutdown cooling loop in operation, suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of Technical Specification 3.9.1 and within 1 hour initiate corrective action to return the required shutdown cooling loop to operation. Close all containment penetrations providing direct access from the containment atmosphere to the outside atmosphere within 4 hours.

SURVEILLANCE REQUIREMENTS

- 4.9.8.2 At least once per 12 hours:
 - a. At least one shutdown cooling loop shall be verified to be in operation.
 - b. The total flow rate of reactor coolant to the reactor pressure vessel shall be verified to be greater than or equal to 3000 gpm.*

Amendment No. 48, 69, 78, 122----

^{*} The reactor coolant flow rate requirement may be reduced to 1850 gpm if the following conditions are satisfied before the reduced requirement is implemented: the reactor has been determined to have been subcritical for at least 125 hours, the maximum RCS temperature is ≤ 117°F, and the temperature of CCW to the shutdown cooling heat exchanger is ≤ 87°F.

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 5 Page 1

Attachment 5

St. Lucie Unit 1

Revised Retyped Technical Specification Pages

<u>TS Pages</u>

3/4 7 - 20
3/4 7-21
3/4 7-22
3/4 7-23
3/4 3-22

6-15b (Also changed by PLA L-2003-224)

6-15d

3/4 4-1d

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

- 3.7.7.1 The control room emergency ventilation system shall be OPERABLE with:
 - a. Two booster fans,
 - b. Two isolation valves in each outside air intake duct,
 - c. Two isolation valves in the toilet area air exhaust duct,
 - d. One filter train,
 - e. At least two air conditioning units, and
 - f. Two isolation valves in the kitchen area exhaust duct.

APPLICABILITY: MODES 1, 2, 3, 4, 5 and 6 or during movement of irradiated fuel assemblies.

ACTION:

MODES 1, 2, 3 and 4:

- a. With one booster fan inoperable, restore the inoperable fan to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one isolation valve per air duct inoperable, operation may continue provided the other isolation valve in the same duct is maintained closed; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With the filter train inoperable, restore the filter train to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With only one air conditioning unit OPERABLE, restore at least two air conditioning units to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Amendment No. 460,

J

PLANT SYSTEMS

ACTION: (continued)

MODES 5 and 6 or during movement of irradiated fuel assemblies:

- a. With one booster fan inoperable, restore the inoperable fan to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency ventilation system in the recirculation mode or suspend movement of irradiated fuel assemblies.
- b. With one isolation valve in an air duct inoperable, maintain the other isolation valve in the same air duct closed or suspend movement of irradiated fuel assemblies.
- c. With the filter train inoperable, suspend movement of irradiated fuel assemblies.
- d. With only one air conditioning unit OPERABLE, restore at least two air conditioning units to OPERABLE status within 7 days or suspend movement of irradiated fuel assemblies.

SURVEILLANCE REQUIREMENTS

4.7.7.1 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 $\leq 120^{\circ}$ F.
- b. At least once per 31 days by:
 - 1. Initiating flow through the HEPA filter and charcoal adsorber train and verifying that each booster fan operates for at least 15 minutes.
 - 2. Starting (unless already operating) each air conditioning unit and verifying that it operates for at least 8 hours.
- c. By performing required control room emergency ventilation system filter testing in accordance with the Ventilation Filter Testing Program.

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 5 Page 4

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

DELETED

ST. LUCIE - UNIT 1

3/4 7-22

Amendment No. 467,

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 18 months by:
 - Verifying that on a containment isolation signal the system automatically isolates the control room within 35 seconds and switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
 - 2. Verifying that the system maintains the control room at a positive pressure \geq 1/8 inch W.G. relative to the outside atmosphere during system operation with \leq 450 cfm outside air intake.

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TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INS	TRUM	IENT	MINIMUM CHANNELS <u>OPERABLE</u>	APPLICABLE MODES	ALARM <u>SETPOINT</u>	MEASUREMENT RANGE	ACTION
1.	AREA	MONITORS					
	a. Fi	uel Storage Pool Area	1	•	<u>≤</u> 15 mR/hr	10 ⁻¹ – 10 ⁴ mR/hr	13
	b. C	ontainment (CIS)	· 3	****	<u>≤</u> 90 mR/hr	1 – 10 ⁵ mR/hr	16
	c. C R	ontainment Area – Hi ange	1	1, 2, 3, & 4	<u><</u> 10 R/hr	1 – 10 ⁷ R/hr	15
2.	PRO	CESS MONITORS					
	a. C	ontainment					
	i.	Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 – 10 ⁶ cpm	14
	11.	. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 – 10 ⁶ cpm	14
	b.F V	uel Storage Pool Area /entilation System					
	i.	Gaseous Activity	1	**	***	10 ⁻⁷ – 10 ⁵ μCi/cc	12
	11.	. Particulate Activity	1	**	***	1 – 10 ⁶ cpm	12

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With fuel in the storage pool or building. With recently Irradiated fuel in the storage pool. The Alarm Setpoints are determined and set in accordance with requirements of the Offsite Dose *** Calculation Manual.

**** During movement of recently irradiated fuel assemblies within containment.

3/4 3-22

Amendment No. 59, 423, 434,

ADMINISTRATIVE CONTROLS

(2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM.
- .2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

h. Containment Leakage Rate Testing Program

A program to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. This program is in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," as modified by the following exception(s):

- a) Bechtel Topical Report, BN-TOP-1 or ANS 56.8-1994 (as recommended by R.G. 1.163) will be used for type A testing.
- b) The first Type A test performed after the May 1993 Type A test shall be no later than May 2008.

The peak calculated containment internal pressure for the design basis loss of coolant accident P_a , is 39.6 psig. The containment design pressure is 44 psig.

The maximum allowed containment leakage rate, L_a , at P_a , shall be 0.50% of containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment leakage rate acceptance criterion is ≤ 1.0 L_a. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are < 0.60 L_a for the Type B and C tests, ≤ 0.75 L_a for Type A tests, and ≤ 0.27 L_a for secondary containment bypass leakage paths.
- b. Air lock testing acceptance criteria are:
 - 1) Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 - 2) For the personnel air lock door seal, leakage rate is < 0.01 L_a when pressurized to \geq 1.0 P_a .
 - For the emergency air lock door seal, leakage rate is < 0.01 L_a when pressurized to ≥ 10 psig.

ST. LUCIE	E - UNIT 1
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6-15b

Amendment No. 69, 86, 423, 449, 487.

ADMINISTRATIVE CONTROLS (continued)

k. <u>Ventilation Filter Testing Program (VFTP)</u>

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2.

 Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1975 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Ventilation	2000 <u>+</u> 200 cfm

 Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1975 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Ventilation	2000 + 200 cfm

3. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and the relative humidity specified below.

ESF Ventilation System	Penetration	<u>RH</u>
Control Room Emergency Ventilation	< 2.5%	70%

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

ESF Ventilation System	<u>Delta P</u>	Flowrate
Control Room Emergency Ventilation	< 4.15" W.G.	2000 <u>+</u> 200 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the NRC.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment of the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant.

ST, LUCIE - UNIT 1

6-15d

Amendment No. 476,

REACTOR COOLANT SYSTEM

COLD SHUTDOWN - LOOPS FILLED

LIMITING CONDITION FOR OPERATION

3.4.1.4.1 At least one shutdown cooling loop shall be OPERABLE and in operation* and either:

- a. One additional shutdown cooling loop shall be OPERABLE[#], or
- b. The secondary side water level of at least two steam generators shall be greater than 10% of narrow range indication.

APPLICABILITY: MODE 5 with reactor coolant loops filled##.

ACTION:

- a. With less than the above required loops OPERABLE or with less than the required steam generator level, within one (1) hour initiate corrective action to return the required loops to OPERABLE status or to restore the required level.
- b. With no shutdown cooling loop in operation, suspend operations that would cause introduction into the RCS; coolant with boron concentration less than required to meet SHUTDOWN MARGIN of Technical Specification 3.1.1.2 and within one (1) hour initiate corrective action to return the required shutdown loop to operation.

SURVEILLANCE REQUIREMENTS

4.4.1.4.1.1 The secondary side water level of at least two steam generators when required shall be determined to be within limits at least once per 12 hours.

4.4.1.4.1.2 At least one shutdown cooling loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

- # One shutdown cooling loop may be inoperable for up to 2 hours for surveillance testing provided the other shutdown cooling loop is OPERABLE and in operation.
- ## A reactor coolant pump shall not be started with two idle loops unless the secondary water temperature of each steam generator is less than 30°F above each of the Reactor Coolant System cold leg temperatures.

ST. LUCIE - UNIT 1

3/4 4-1d

Amendment No. 56, 81, 403, 479,

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^{*} The shutdown cooling pump may be de-energized for up to 1 hour provided 1) no operations are permitted that would cause introduction into the RCS, coolant with boron concentration less than required to meet the SHUTDOWN MARGIN of Technical Specification 3.1.1.2 and 2) core outlet temperature is maintained at least 10°F below saturation temperature.

Attachment 6

St. Lucie Unit 2

Revised Retyped Technical Specification Pages

<u>TS Pages</u>
3/4 7-17
3/4 7-18
3/4 7-19
3/4 3-25
3/4 3-27
6-15d
6-15e
INDEX iii
3/4 9-9

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACS)

LIMITING CONDITION FOR OPERATION

3.7.7 Two independent control room emergency air cleanup systems shall be OPERABLE with:

- a. A filter train and its associated fan per system, and
- b. At least one air conditioning unit per system, and
- c. Two isolation valves in the kitchen area exhaust duct, and
- d. Two isolation valves in the toilet area exhaust duct, and
- e. Two isolation valves in each (North and South) air intake duct.

APPLICABILITY: MODES 1, 2, 3, 4, 5 and 6 or during movement of irradiated fuel assemblies.

ACTION:

MODES 1, 2, 3, and 4:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both control room emergency air cleanup systems inoperable, restore at least one system to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the next 30 hours.
- c. With an isolation valve in an air intake duct or air exhaust duct inoperable, operation may continue provided the other isolation valve in the same air intake or air exhaust duct is maintained closed; otherwise be in at least HOT STANDBY in the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6 or during movement of irradiated fuel assemblies:

- a. With one control room emergency air cleanup system inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE control room emergency air cleanup system in the recirculation mode or suspend movement of irradiated fuel assemblies.
- b. With both control room emergency air cleanup systems inoperable, suspend movement of irradiated fuel assemblies.
- c. With an isolation valve in an air intake duct or air exhaust duct inoperable, maintain the other isolation valve in the same air intake or air exhaust duct closed or suspend movement of irradiated fuel assemblies.

ST. LUCIE - UNIT 2

3/4 7-17

Amendment No. 122,

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St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 6 Page 3

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

- 4.7.7 Each control room emergency air cleanup system shall be demonstrated OPERABLE:
 - a. At least once per 12 hours by verifying that the control room air temperature is $\leq 120^{\circ}$ F.
 - b. At least once per 31 days by (1) initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes and (2) starting, unless already operating each air conditioning unit and verifying that it operates for at least 8 hours.
 - c. By performing required control room emergency air cleanup system filter testing in accordance with the Ventilation Filter Testing Program.

Amendment No. 407,

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued) At least once per 18 months by: ļ d. 1. Verifying that on a containment isolation test signal from ł Unit 2, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks. 2. Verifying that the system maintains the control room at a 1 positive pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere during system operation with \leq 450 cfm outside air intake. 3. Verifying that on a containment isolation test signal from 1 Unit 1 the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area					
	i. Criticality and Ventilation System Isolation Monitor	4	•	<u><</u> 20 mR/hr	10 ⁻¹ – 10 ⁴ mR/hr	22
	b. Containment Isolation	3	****	≤ 90 mR/hr	1 – 10 ⁷ mR/hr	25
	c. Control Room Isolation	1 per intake	ALL MODES	2x background	10 ⁻⁷ – 10 ⁻² μCi/cc	26
	d. Containment Area – Hi Range	1	1, 2, 3 & 4	Not Applicable	1 - 10 ⁷ R/hr	27
2.	PROCESS MONITORS					
	a. Fuel Storage Pool Area Ventilation System					
	i. Gaseous Activity	1	**	***	10 ⁻⁷ – 10 ⁻² μCi/cc	24
	ii. Particulate Activity	1	**	***	1 – 10 ⁶ cpm	24
	b. Containment					
	i. Gaseous Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	$10^{-7} - 10^{-2} \mu\text{Ci/cc}$	23
	ii. Particulate Activity RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	1 – 10 ⁶ cpm	23

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With fuel in the storage pool or building. During movement of recently irradiated fuel assemblies or during crane operations with loads over recently irradiated fuel assemblies in the spent fuel storage pool. **

*** The Alarm/Trip Setpoints are determined and set in accordance with requirements of the Offsite Dose Calculation Manual.

**** During movement of recently irradiated fuel assemblies within containment.

Amendment No. 25, 61,

St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 L-2005-132 Attachment 6 Page 6

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 22 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 23 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 24 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, suspend all operations involving movement of recently irradiated fuel within the spent fuel storage pool.
- ACTION 25 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 26 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- ACTION 27 With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
 - Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - 2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ST. LUCIE - UNIT 2

3/4 3-27

Amendment No. 73,

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ADMINISTRATIVE CONTROLS (continued)

j. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- 1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - a. a change in the TS incorporated in the license; or
 - b. a change to the updated UFSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.
- 4. Proposed changes that meet the criteria of Specification 6.8.4.j.2.a or 6.8.4.j.2.b, above, shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

k. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2.

 Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1980 at the system flowrate specified below.

Flowrate

2000 ± 200 cfm

ESF Ventilation System	
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Control Room Emergency Air Cleanup

 Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass ≤ 0.05% when tested in accordance with ANSI N510-1980 at the system flowrate specified below.

ESF Ventilation System	Flowrate
Control Room Emergency Air Cleanup	2000 <u>+</u> 200 cfm

3. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and the relative humidity specified below.

ESF Ventilation System	Penetration	<u>RH</u>
Control Room Emergency Air Cleanup	<u><</u> 0.175%	95%

ST. LUCIE - UNIT 2

6-15d

Amendment No. 117,

ADMINISTRATIVE CONTROLS (continued)

- k. <u>Ventilation Filter Testing Program (VFTP)</u> (continued)
 - 4. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters and charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below.

ESF Ventilation System	<u>Delta P</u>	Flowrate
Control Room Emergency Air Cleanup	< 7.4" W.G.	2000 <u>+</u> 200 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

Amendment No.

INDEX

SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS		
SECTION	<u>v</u>	PAGE
2.1	SAFETY LIMITS	
2.1.1	REACTOR CORE	2-1
2.1.1.1	DNBR	2-1
2.1.1.2	DELETE	
2.1.2	REACTOR COOLANT SYSTEM PRESSURE	
2.2	LIMITING SAFETY SYSTEM SETTINGS	
2.2.1	REACTOR TRIP SETPOINTS	2-2

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Amendment No. 405, 417,

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REFUELING OPERATIONS

LOW WATER LEVEL

LIMITING CONDITION FOR OPERATION

3.9.8.2 Two independent shutdown cooling loops shall be OPERABLE and at least one shutdown cooling shall be in operation.

<u>APPLICABILITY</u>: MODE 6 when the water level above the top of the reactor pressure vessel flange is less than 23 feet.

ACTION:

- a. With less than the required shutdown cooling loops OPERABLE, within 1 hour initiate corrective action to return the required loops to OPERABLE status, or to establish greater than or equal to 23 feet of water above the reactor pressure vessel flange, as soon as possible.
- b. With no shutdown cooling loop in operation, suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of Technical Specification 3.9.1 and within 1 hour initiate corrective action to return the required shutdown cooling loop to operation. Close all containment penetrations providing direct access from the containment atmosphere to the outside atmosphere within 4 hours.

SURVEILLANCE REQUIREMENTS

4.9.8.2 At least once per 12 hours:

- a. At least one shutdown cooling loop shall be verified to be in operation.
- b. The total flow rate of reactor coolant to the reactor pressure vessel shall be verified to be greater than or equal to 3000 gpm.*

3/4 9-9

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^{*} The reactor coolant flow rate requirement may be reduced to 1850 gpm if the following conditions are satisfied before the reduced requirement is implemented: the reactor has been determined to have been subcritical for at least 125 hours, the maximum RCS temperature is ≤ 117°F, and the temperature of CCW to the shutdown cooling heat exchanger is ≤ 87°F.