Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

October 29, 2003

L-2003-217
10 CFR 50.90

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

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Proposed License Amendments
Relocation of Pump Technical
Specification Surveillance Requirements

Pursuant to 10 CFR 50.90, Florida Power and Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specification (TS) revisions. In accordance with the CE Improved Standard Technical Specifications and the NRC Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors, the proposed amendments would relocate specific pressure and flow values associated with the high pressure safety injection (HPSI), low pressure safety injection (LPSI), boric acid makeup (BAM), and containment spray (CS) pumps from the TS to the St. Lucie Units 1 and 2 Updated Final Safety Analysis Reports (UFSARs).

Attachment 1 is an evaluation of the proposed changes. Attachment 2 is the "Determination of No Significant Hazards Consideration." Attachment 3 contains the affected Technical Specifications pages marked-up to show the proposed changes. Attachment 4 contains the word-processed TS changes. Attachment 5 contains an information-only copy of the proposed changes to the TS Bases.

The St. Lucie Facility Review Group and the FPL Company Nuclear Review Board have reviewed the proposed amendments. In accordance with 10 CFR 50.91(b)(1), copies of the proposed amendments are being forwarded to the State Designee for the State of Florida.

Please contact us if there are any questions about this submittal.

Very truly yours,

William Jefferson, Jr.
Vice President
St. Lucie Plant

WJ/KWF

Attachments

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

A001

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 and Light Company, the Licensee herein;

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

William Jefferson, Jr.

STATE OF FLORIDA

COUNTY OF St. Lucie

Sworn to and subscribed before me

this 29 day of Oct, 2003

by William Jefferson, Jr., who is personally known to me.

Signature of Notary Public, State of Florida

Leslie J. Whitwell
MY COMMISSION # DD020212 EXPIRES
May 12, 2005
BONDED THRU TROY FAIN INSURANCE, INC.

Name of Notary Public (Print, Type, or Stamp)

ATTACHMENT 1

EVALUATION OF PROPOSED TS CHANGES

EVALUATION OF PROPOSED TS CHANGES

BACKGROUND

Pursuant to 10 CFR 50.90, Florida Power and Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specification (TS) revisions. The proposed amendments would relocate specific pressure and flow values associated with the high pressure safety injection (HPSI), low pressure safety injection (LPSI), boric acid makeup (BAM), and containment spray (CS) pumps from the TSs to the St. Lucie Units 1 and 2 Updated Final Safety Analysis Reports (UFSARs). Relocation of the specific criteria to the St. Lucie Units 1 and 2 UFSARs would afford FPL operational flexibility to revise the criteria without need for requesting an amendment to the operating license. All changes to the St. Lucie Units 1 and 2 UFSARs require evaluation pursuant to the 10 CFR 50.59 process.

Precedent Licensing Actions

Seabrook Station received a similar license amendment in May 2002 to relocate Technical Specification surveillance requirements for pumps to another licensee-controlled document [Reference 5].

DESCRIPTION OF PROPOSED CHANGE

The marked-up pages of the proposed St. Lucie Units 1 and 2 TS changes are shown in Attachment 3. Word processed TSs are shown in Attachment 4. The description of the proposed changes is presented below.

BAM Pumps - Operating

Unit 1 TS Surveillance Requirement (SR) 4.1.2.5 shall be revised to read:

> The above required boric acid pump shall be demonstrated OPERABLE by verifying that ~~on recirculation flow,~~ the pump develops ~~a~~ the specified discharge pressure ~~of ≥ 75 psig~~ when tested pursuant to the Inservice Testing Program.

Unit 2 TS SR 4.1.2.5 shall be revised to read:

> The above required boric acid makeup pump shall be demonstrated OPERABLE by verifying, that ~~on recirculation flow,~~ the pump develops ~~a~~ the specified discharge pressure ~~of greater than or equal to 90 psig~~ when tested pursuant to the Inservice Testing Program.

BAM Pumps - Shutdown

Unit 1 TS SR 4.1.2.6 shall be revised to read:

The above required boric acid pump(s) shall be demonstrated OPERABLE by verifying that ~~on recirculation flow, the~~ pump(s) develops ~~a~~ the specified discharge pressure ~~of ≥ 75 psig~~ when tested pursuant to the Inservice Testing Program.

Unit 2 TS SR 4.1.2.6 shall be revised to read:

The above required boric acid makeup pump(s) shall be demonstrated OPERABLE by verifying, that ~~on recirculation flow, the~~ pump(s) develop ~~a~~ the specified discharge pressure ~~of greater than or equal to 90 psig~~ when tested pursuant to the Inservice Testing Program.

CS Pumps

Unit 1 TS SR 4.6.2.1.b shall be revised to read:

By verifying that ~~on recirculation flow,~~ each spray pump develops ~~a~~ the specified discharge pressure ~~of ≥ 200 psig,~~ when tested pursuant to the Inservice Testing Program.

Unit 2 TS SR 4.6.2.1.b shall be revised to read:

By verifying that ~~on recirculation flow,~~ each spray pump develops ~~a~~ the specified discharge pressure ~~of greater than or equal to 200 psig,~~ when tested pursuant to the Inservice Testing Program.

HPSI and LPSI Pumps

Unit 1 TS SR 4.5.2.f shall be revised to read:

By verifying that each of the following pumps develops the specified total developed head ~~on recirculation flow~~ when tested pursuant to the Inservice Testing Program.

1. High-Pressure Safety Injection pumps ~~: greater than or equal to 2571 ft~~.
2. Low-Pressure Safety Injection pumps ~~: greater than or equal to 350 ft~~.

Unit 2 TS SR 4.5.2.g shall be revised to read:

By verifying that each of the following pumps develops the specified total developed head ~~on recirculation flow~~ when tested pursuant to the Inservice Testing Program.

1. High-Pressure Safety Injection pumps ~~: greater than or equal to 2854 ft~~.
2. Low-Pressure Safety Injection pumps ~~: greater than or equal to 374 ft~~.

Unit 2 TS SR 4.5.2.i is to be completely deleted from the TS (there is no corresponding TS SR for St. Lucie Unit 1).

The TS changes delete the specific testing requirements for the subject pumps and will relocate the requirements to the St. Lucie Units 1 and 2 UFSARs. This action is consistent with the intent of the 1993 NRC Policy Statement, and is also consistent with revision 2 of NUREG-1432 (STS for CE Plants).

BASIS/JUSTIFICATION FOR PROPOSED CHANGE

In July 1993, the NRC issued a Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors in the Federal Register [Reference 1]. The policy statement contained four objective criteria, whose purpose was to focus the Technical Specifications on only those requirements that are important to operational safety. The four criteria are now codified in 10 CFR 50.36 [Reference 2]. The criteria identify requirements derived from the analyses and evaluations included in the UFSAR that are of immediate concern to the health and safety of the public. Generally, the criteria identify operating requirements related to: 1) detecting reactor coolant pressure boundary degradation; 2) operation within the initial conditions of the accident analyses; 3) accident mitigation; and 4) the operation of other risk-significant structures, systems, or components not covered by the first three criteria. 10 CFR 50.36(c)(2)(ii) requires that a technical specification limiting condition for operation (LCO) must be established for items meeting one or more of the criteria.

The Final Policy Statement also encouraged licensees to implement a voluntary update program of their Technical Specifications to be consistent with the Standard Technical Specifications (i.e., NUREG-1432 for Combustion Engineering (CE) plants [Reference 3]). The four 10 CFR 50.36 criteria provide a basis for relocating requirements from the Technical Specifications to other licensee-controlled documents, provided the requirements meet none of the four criteria. NRC Staff Review of NSSS Vendor Groups' Application of the Commission's Interim Policy Statement Criteria to Standard Technical Specifications ("split report") [Reference 4] provides NRC staff review of each reactor vendor Owners Group's application of the four criteria to their respective Standard Technical Specifications (STS). The list of retained and relocated LCOs is tabulated in Appendix C of Reference 4.

The subject TS SRs currently provide details describing pump acceptance criteria and test methods (e.g., testing on recirculation flow) associated with performance surveillance testing of centrifugal pumps. It is proposed that these details be relocated to the UFSAR. These details are not necessary to ensure operability. The requirements of the applicable Limiting Condition for Operation (LCO) and the associated Surveillance Requirements for these systems, as well as the TS definition of OPERABILITY, are adequate to ensure the systems are maintained operable. As a result, these details are not necessary to ensure the systems can perform their intended safety function and are not required to be in the TS to provide adequate protection of the public health and safety. BAM pumps are not specifically addressed in NUREG-1432, Revision 2. However, relocating the BAM pump surveillance requirement success criteria and testing methods to the UFSAR meets the intent of the ISTS treatment of other emergency core and containment heat removal centrifugal pumps.

The relocation of these surveillance details for the CS, LPSI, HPSI, and BAM pumps to the St. Lucie UFSARs maintains the consistency with NUREG-1432. Any change to these details will be made in accordance with 10 CFR 50.59.

Current Unit 2 TS SR 4.5.2.i requires the performance of a flow balance test to the emergency core cooling system (ECCS) subsystems following the completion of modifications that alter the subsystem flow characteristics. Plant procedures governing the restoration of equipment after maintenance specify the appropriate post maintenance testing. It is proposed that this requirement be relocated to the UFSAR. Any time the operability of a system or component has been affected by repair, maintenance, or replacement of a component, post maintenance testing is required to demonstrate operability of the system or component. As such, the requirement to perform a flow balance test after modifications that alter flow characteristics is not required to be in the TS to provide adequate protection of the public health and safety. The TS SR Bases will be revised to state that the flow balancing criteria are contained in the UFSAR to ensure that post modification testing criteria continues to verify the safety analysis assumptions. The relocation of this requirement maintains the consistency with NUREG-1432. Any change to this requirement will be made in accordance with 10 CFR 50.59.

These proposed changes relocate requirements that are not of controlling importance to operational safety. This is consistent with the Improved Standard Technical Specifications for CE plants and the 1993 NRC Policy Statement. The specific pump surveillance verification criteria currently within the TSs may be removed from TSs because they do not meet the four specific criteria in 10 CFR 50.36. Specifically:

- Pump performance verification criteria is not considered installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Thus, the specific pump performance verification criteria do not satisfy Criterion 1 (as amended in 10 CFR 50.36) for retention;

- Pump performance verification criteria is not a process variable that is an initial condition of a design basis accident (DBA) or transient analysis that assumes either the failure of or presents a challenge to the integrity of a fission product barrier. Therefore, the specific pump performance verification criteria do not satisfy Criterion 2 (as amended in 10 CFR 50.36) for retention;

- Pump performance verification criteria is not a structure, system, or component (SSC) that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Therefore, the specific pump performance verification criteria do not satisfy Criterion 3 (as amended in 10 CFR 50.36) for retention;

- Pump performance verification criteria is not considered as a significant risk contributor. Therefore, the specific pump performance verification criteria do not satisfy Criterion 4 (as amended in 10 CFR 50.36) for retention in the Technical Specifications.

Though it is recognized that proper engineered safety feature (ESF) pump performance is necessary to ensure the safety analysis assumptions remain valid, the specific values for determining proper ESF pump performance need not be contained within the TS SR itself. The

specific details controlled by the subject specifications do not need to be included within the scope of the Technical Specifications. The subject details will be adequately controlled in the St. Lucie UFSARs. The inclusion of the subject details in TSs is not specifically required by 10 CFR 50.36, or other regulations. Additionally, the activities controlled by the subject specification do not pose a threat to the public health and safety. Therefore, the proposed changes to the subject TS SR do not affect plant safety.

SUMMARY CONCLUSION

The TS SRs reviewed above do not meet any of the four 10 CFR 50.36 screening criteria and may be relocated to the respective unit's UFSAR. Relocating these technical specification requirements to the UFSAR will be consistent with the Improved Standard Technical Specifications for CE plants, will be consistent with the 1993 NRC Policy Statement regarding Technical Specifications content, and will ensure future changes are controlled under the requirements of 10 CFR 50.59.

REFERENCES

1. Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, 58 FR 39132, dated July 22, 1993.
2. 10 CFR 50.36(c)(2)(ii), Technical Specifications [screening criteria].
3. NUREG-1432, Standard Technical Specifications for Combustion Engineering Plants, Rev. 2, dated April 2001.
4. NRC Staff Review of NSSS Vendor Groups' Application of the Commission's Interim Policy Statement Criteria to Standard Technical Specifications ("split report"), dated May 9, 1988.
5. NRC SER for Seabrook Station dated May 2, 2002, Issuance of Amendment Re: Relocation of Certain Engineered Safety Features Pump Values From Technical Specifications to the Technical Requirements Manual (TAC No. MB4258).

ATTACHMENT 2

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Description of amendment request: Pursuant to 10 CFR 50.90, Florida Power and Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specification (TS) revisions. The proposed amendments would relocate specific pressure and flow values associated with the high pressure safety injection (HPSI), low pressure safety injection (LPSI), boric acid makeup (BAM), and containment spray (CS) pumps from the TSs to the St. Lucie Units 1 and 2 Updated Final Safety Analysis Reports (UFSARs). Relocation of the specific criteria to the St. Lucie Unit 1 and 2 UFSARs would afford FPL operational flexibility to revise the criteria without need for requesting an amendment to the operating license. All changes to the St. Lucie Units 1 and 2 UFSARs require an evaluation pursuant to 10 CFR 50.59 prior to implementation. Relocation of these requirements to the St. Lucie Units 1 and 2 UFSARs is consistent with the NRC Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, FR, 58, No. 139, page 39132, dated July 22, 1993, and is also consistent with 10 CFR 50.36 and Revision 2 of NUREG-1432, Standard Technical Specifications for CE Plants.

Pursuant to 10 CFR 50.92, a determination may be made that a proposed license amendment 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; (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 as follows.

1) Would operation of the facility in accordance with the proposed amendments involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed changes to relocate the BAM, CS, HPSI, and LPSI pump surveillance verification details in the aforementioned Technical Specifications surveillance requirements to the St. Lucie UFSARs do not adversely affect accident initiators or precursors nor alter the design assumptions, conditions, configuration of the facility, or the manner in which it is operated. The proposed changes do not alter or prevent the ability of structures, systems, or components to perform their intended function to mitigate the consequences of an initiating event within the acceptance limits assumed in the St. Lucie UFSARs.

   The subject surveillance requirement criteria relocated to the St. Lucie UFSARs will continue to be administratively controlled. Changes to the St. Lucie UFSARs are evaluated and controlled under 10 CFR 50.59 prior to implementation. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2) Would operation of the facility in accordance with the proposed amendments create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes do not alter the design assumptions, conditions, or configuration of the facility or the manner in which the plant is operated. There are no changes to the source term or radiological release assumptions used in evaluating the radiological consequences in the St. Lucie UFSARs. The proposed changes have no adverse impact on component or system interactions. The proposed changes will not adversely degrade the ability of systems, structures and components important to safety to perform their safety function nor change the response of any system, structure or component important to safety as described in the UFSARs. The proposed changes do not change the level of programmatic and procedural details of assuring operation of the facility in a safe manner. Since there are no changes to the design assumptions, conditions, configuration of the facility, or the manner in which the plant is operated and surveilled, the proposed changes do not create the possibility of a new or different kind of accident from any previously analyzed.

3) Would operation of the facility in accordance with the proposed amendments involve a significant reduction in a margin of safety?

There is no adverse impact on equipment design or operation and there are no changes being made to the Technical Specification required safety limits or safety system settings that would adversely affect plant safety. The proposed changes do not reduce the level of programmatic or procedural controls associated with the activities presently performed via the aforementioned surveillance requirements.

Future changes to the relocated technical requirements will require an evaluation pursuant to the provisions of 10 CFR 50.59 prior to implementation.

Therefore, relocation of the specific pump pressure and flow criteria contained in the aforementioned Technical Specifications Surveillance Requirements to the St. Lucie Units 1 and 2 UFSARs does not involve a significant reduction in the margin of safety provided in the existing specifications.

Based on the determination made above, FPL concludes that the proposed amendments involve no significant hazards consideration.

Environmental Consideration

The proposed license amendments do not change requirements with respect to the use of a facility component located within the restricted area as defined in 10 CFR Part 20. The proposed amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and no significant increase in individual or cumulative occupational radiation exposure. FPL concluded that the proposed amendments involve no significant hazards consideration and meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and that, pursuant to 10 CFR 51.22(b), an environmental impact

statement or environmental assessment need not be prepared in connection with issuance of the amendments.

Conclusion

FPL concludes, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) such activities will be conducted in compliance with the Commission's regulations; and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

ATTACHMENT 3

ST. LUCIE MARKED-UP TECHNICAL SPECIFICATION PAGES

Unit 1 TS

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Unit 2 TS

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REACTIVITY CONTROL SYSTEMS

BORIC ACID PUMPS – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.5 At least one boric acid pump shall be OPERABLE if only the flow path through the boric acid pump in Specification 3.1.2.1a above, is OPERABLE.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no boric acid pump OPERABLE as required to complete the flow path of Specification 3.1.2.1a, suspend all operations involving CORE ALTERATIONS or positive reactivity changes* until at least one boric acid pump is restored to OPERABLE status.

the specified

SURVEILLANCE REQUIREMENTS

4.1.2.5 The above required boric acid pump shall be demonstrated OPERABLE by verifying that ~~on recirculation flow,~~ the pump develops a discharge pressure ~~of ≥ 75 psig~~ when tested pursuant to the Inservice Testing Program.

* Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SHUTDOWN MARGIN.

REACTIVITY CONTROL SYSTEMS

BORIC ACID PUMPS – OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.6 At least the boric acid pump(s) in the boron injection flow path(s) required OPERABLE pursuant to Specification 3.1.2.2a shall be OPERABLE if the flow path through the boric acid pump in Specification 3.1.2.2a is OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one boric acid pump required for boron injection flow path(s) pursuant to Specification 3.1.2.2a inoperable, restore the boric acid pump to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.6 The above required boric acid pump(s) shall be demonstrated OPERABLE by verifying that ~~on recirculation flow, the~~ pump develops a discharge pressure ~~of ≥ 75 psig~~ when tested pursuant to the Inservice Testing Program.

(5) the specified

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

e. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection Actuation Signal.

2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Signal;

a. High-Pressure Safety Injection Pump.

b. Low-Pressure Safety Injection Pump.

3. Verifying that upon receipt of an actual or simulated Recirculation Actuation Signal: each low-pressure safety injection pump stops, each containment sump isolation valve opens, each refueling water tank outlet valve closes, and each safety injection system recirculation valve to the refueling water tank closes.

f. By verifying that each of the following pumps develops the specified total developed head ~~on recirculation flow~~ when tested pursuant to the Inservice Testing Program.

1. High-Pressure Safety Injection pumps: ~~greater than or equal to 2571 ft.~~ .

2. Low-Pressure Safety Injection pumps: ~~greater than or equal to 350 ft.~~ .

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is positioned to take suction from the RWT on a Containment Pressure -- High High test signal.

b. By verifying that ~~on recirculation flow, each~~ each spray pump develops ~~a~~ discharge pressure ~~of ≥ 200 psig, when~~ when tested pursuant to the Inservice Testing Program. |

REACTIVITY CONTROL SYSTEMS

BORIC ACID MAKEUP PUMPS – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.5 At least one boric acid makeup pump shall be OPERABLE and capable of being powered from an OPERABLE emergency bus if only the flow path through the boric acid pump in Specification 3.1.2.1a is OPERABLE.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no boric acid pump OPERABLE as required to complete the flow path of Specification 3.1.2.1a, suspend all operations involving CORE ALTERATIONS or positive reactivity changes*.

the specified

SURVEILLANCE REQUIREMENTS

4.1.2.5 The above required boric acid makeup pump shall be demonstrated OPERABLE by verifying, that ~~on recirculation flow,~~ the pump develops ~~a~~ discharge pressure ~~of greater than or equal to 90 psig~~ when tested pursuant to the Inservice Testing Program.

* Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SHUTDOWN MARGIN.

REACTIVITY CONTROL SYSTEMS

BORIC ACID MAKEUP PUMPS – OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.6 At least the boric acid makeup pump(s) in the boron injection flow path(s) required OPERABLE pursuant to Specification 3.1.2.2 shall be OPERABLE and capable of being powered from an OPERABLE emergency bus if the flow path through the boric acid pump(s) in Specification 3.1.2.2 is OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With no boric acid makeup pump required for the boron injection flow path(s) pursuant to Specification 3.1.2.2 inoperable, restore the boric acid makeup pump to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and borated to a SHUTDOWN MARGIN equivalent to its COLR limit at 200°F; restore the above required boric acid makeup pump(s) to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.6 The above required boric acid makeup pump(s) shall be demonstrated OPERABLE by verifying, that ~~on recirculation flow, the~~ pump(s) develop ~~a~~ discharge pressure ~~of greater than or equal to 90 psig~~ when tested pursuant to the Inservice Testing Program.

the specified

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.

3. Verifying that a minimum total of 173 cubic feet of solid granular trisodium phosphate dodecahydrate (TSP) is contained within the TSP storage baskets.

4. Verifying that when a representative sample of 70.5 ± 0.5 grams of TSP from a TSP storage basket is submerged, without agitation, in 10.0 ± 0.1 gallons of 120 ± 10°F borated water from the RWT, the pH of the mixed solution is raised to greater than or equal to 7 within 4 hours.

f. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on SIAS and/or RAS test signals.

2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Test Signal:

a. High-Pressure Safety Injection pump.

b. Low-Pressure Safety Injection pump.

3. Verifying that upon receipt of an actual or simulated Recirculation Actuation Signal: each low-pressure safety injection pump stops, each containment sump isolation valve opens, each refueling water tank outlet valve closes, and each safety injection system recirculation valve to the refueling water tank closes.

g. By verifying that each of the following pumps develops the specified total developed head ~~on recirculation flow~~ when tested pursuant to the Inservice Testing Program:

1. High-Pressure Safety Injection pumps: ~~greater than or equal to 2854 ft.~~ •

2. Low-Pressure Safety Injection pumps ~~greater than or equal to 374 ft.~~ •

h. By verifying the correct position of each electrical and/or mechanical position stop for the following ECCS throttle valves:

1. During valve stroking operation or following maintenance on the valve and prior to declaring the valve OPERABLE when the ECCS subsystems are required to be OPERABLE.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. At least once per 18 months.

	HPSI System Valve Number	LPSI System Valve Number
a.	HCV 3616/3617	a. HCV 3615
b.	HCV 3626/3627	b. HCV 3625
c.	HCV 3636/3637	c. HCV 3635
d.	HCV 3646/3647	d. HCV 3645
e.	V3523/V3540	

delete

i. By performing a flow balance test, during shutdown, following completion of modifications to the ECCS subsystems that alter the subsystem flow characteristics. The test shall measure the individual leg flow rates and pump total developed head to verify the following conditions:

1. HPSI Pump 2A:
The sum of the three lowest cold leg flow rates shall be greater than or equal to 476 gpm with total developed head greater than or equal to 1150 ft but less than equal to 1290 ft.

2. HPSI Pump 2B:
The sum of the three lowest cold leg flow rates shall be greater than or equal to 484 gpm with total developed head greater than or equal to 910 ft but less than or equal to 1040 ft.

3. With the system operating in hot/cold leg injection mode, the hot leg flow shall be greater than or equal to 317 gpm and within 10% of the cold leg header flow and:

HPSI Pump 2A:
The pump shall be producing total developed head greater than or equal to 1297 ft but less than or equal to 1500 ft.

HPSI Pump 2B:
The pump shall be producing total developed head greater than or equal to 1042 ft but less than 1250 ft.

4. LPSI System – Each Pump:
The flow through each injection leg shall be greater than or equal to 1763 gpm at a total developed head greater than or equal to 298 ft but less than or equal to 337 ft.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is positioned to take suction from the RWT ~~on a Containment~~ Pressure -- High-High test signal.

b. By verifying that ~~on recirculation flow,~~ each pump develops ~~a~~ discharge pressure ~~of greater than or equal to 200 psig~~ when tested pursuant to the Inservice Testing Program.

c. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a CSAS test signal.

2. Verifying that upon a Recirculation Actuation Test Signal (RAS), the containment sump isolation valves open and that a recirculation mode flow path via an OPERABLE shutdown cooling heat exchanger is established.

ATTACHMENT 4

ST. LUCIE WORD PROCESSED TECHNICAL SPECIFICATION PAGES

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REACTIVITY CONTROL SYSTEMS

BORIC ACID PUMPS – SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.5 At least one boric acid pump shall be OPERABLE if only the flow path through the boric acid pump in Specification 3.1.2.1a above, is OPERABLE.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no boric acid pump OPERABLE as required to complete the flow path of Specification 3.1.2.1a, suspend all operations involving CORE ALTERATIONS or positive reactivity changes* until at least one boric acid pump is restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.1.2.5 The above required boric acid pump shall be demonstrated OPERABLE by verifying that the pump develops the specified discharge pressure when tested pursuant to the Inservice Testing Program.

* Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SHUTDOWN MARGIN.

REACTIVITY CONTROL SYSTEMS

BORIC ACID PUMPS – OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.6 At least the boric acid pump(s) in the boron injection flow path(s) required OPERABLE pursuant to Specification 3.1.2.2a shall be OPERABLE if the flow path through the boric acid pump in Specification 3.1.2.2a is OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one boric acid pump required for boron injection flow path(s) pursuant to Specification 3.1.2.2a inoperable, restore the boric acid pump to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.6 The above required boric acid pump(s) shall be demonstrated OPERABLE by verifying that the pump(s) develop the specified discharge pressure when tested pursuant to the Inservice Testing Program.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

e. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection Actuation Signal.

2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Signal;

a. High-Pressure Safety Injection Pump.

b. Low-Pressure Safety Injection Pump.

3. Verifying that upon receipt of an actual or simulated Recirculation Actuation Signal: each low-pressure safety injection pump stops, each containment sump isolation valve opens, each refueling water tank outlet valve closes, and each safety injection system recirculation valve to the refueling water tank closes.

f. By verifying that each of the following pumps develops the specified total developed head when tested pursuant to the Inservice Testing Program.

1. High-Pressure Safety Injection pumps.

2. Low-Pressure Safety Injection pumps.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is positioned to take suction from the RWT on a Containment Pressure -- High High test signal.

b. By verifying that each spray pump develops the specified discharge pressure when tested pursuant to the Inservice Testing Program.

REACTIVITY CONTROL SYSTEMS

BORIC ACID MAKEUP PUMPS - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.5 At least one boric acid makeup pump shall be OPERABLE and capable of being powered from an OPERABLE emergency bus if only the flow path through the boric acid pump in Specification 3.1.2.1a is OPERABLE.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no boric acid pump OPERABLE as required to complete the flow path of Specification 3.1.2.1a, suspend all operations involving CORE ALTERATIONS or positive reactivity changes*.

SURVEILLANCE REQUIREMENTS

4.1.2.5 The above required boric acid makeup pump shall be demonstrated OPERABLE by verifying that the pump develops the specified discharge pressure when tested pursuant to the Inservice Testing Program.

* Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SHUTDOWN MARGIN.

REACTIVITY CONTROL SYSTEMS

BORIC ACID MAKEUP PUMPS – OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.6 At least the boric acid makeup pump(s) in the boron injection flow path(s) required OPERABLE pursuant to Specification 3.1.2.2 shall be OPERABLE and capable of being powered from an OPERABLE emergency bus if the flow path through the boric acid pump(s) in Specification 3.1.2.2 is OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With no boric acid makeup pump required for the boron injection flow path(s) pursuant to Specification 3.1.2.2 inoperable, restore the boric acid makeup pump to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and borated to a SHUTDOWN MARGIN equivalent to its COLR limit at 200°F; restore the above required boric acid makeup pump(s) to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.6 The above required boric acid makeup pump(s) shall be demonstrated OPERABLE by verifying that the pump(s) develop the specified discharge pressure when tested pursuant to the Inservice Testing Program.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.

3. Verifying that a minimum total of 173 cubic feet of solid granular trisodium phosphate dodecahydrate (TSP) is contained within the TSP storage baskets.

4. Verifying that when a representative sample of 70.5 ± 0.5 grams of TSP from a TSP storage basket is submerged, without agitation, in 10.0 ± 0.1 gallons of 120 ± 10°F borated water from the RWT, the pH of the mixed solution is raised to greater than or equal to 7 within 4 hours.

f. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on SIAS and/or RAS test signals.

2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Test Signal:

a. High-Pressure Safety Injection pump.

b. Low-Pressure Safety Injection pump.

3. Verifying that upon receipt of an actual or simulated Recirculation Actuation Signal: each low-pressure safety injection pump stops, each containment sump isolation valve opens, each refueling water tank outlet valve closes, and each safety injection system recirculation valve to the refueling water tank closes.

g. By verifying that each of the following pumps develops the specified total developed head when tested pursuant to the Inservice Testing Program:

1. High-Pressure Safety Injection pumps.

2. Low-Pressure Safety Injection pumps.

h. By verifying the correct position of each electrical and/or mechanical position stop for the following ECCS throttle valves:

1. During valve stroking operation or following maintenance on the valve and prior to declaring the valve OPERABLE when the ECCS subsystems are required to be OPERABLE.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. At least once per 18 months.

	HPSI System Valve Number	LPSI System Valve Number
a.	HCV 3616/3617	HCV 3615
b.	HCV 3626/3627	HCV 3625
c.	HCV 3636/3637	HCV 3635
d.	HCV 3646/3647	HCV 3645
e.	V3523/V3540	

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is positioned to take suction from the RWT on a Containment Pressure – High-High test signal.

b. By verifying that each spray pump develops the specified discharge pressure when tested pursuant to the Inservice Testing Program.

c. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on a CSAS test signal.

2. Verifying that upon a Recirculation Actuation Test Signal (RAS), the containment sump isolation valves open and that a recirculation mode flow path via an OPERABLE shutdown cooling heat exchanger is established.

ATTACHMENT 5

ST. LUCIE MARKED-UP TS BASES CHANGES

SECTION NO.: 3/4.1	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 3 OF ADM-25.04 REACTIVITY CONTROL SYSTEMS ST. LUCIE UNIT 1	PAGE: 6 of 9
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3/4.1 **REACTIVITY CONTROL SYSTEMS** (continued)

BASES (continued)

3/4.2 **BORATION SYSTEMS** (continued)

Temperature changes in the RCS impose reactivity changes by means of the moderator temperature coefficient. Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SDM. Small changes in RCS temperature are unavoidable and so long as the required SDM is maintained during these changes, any positive reactivity additions will be limited to acceptable levels. Introduction of temperature changes must be evaluated to ensure they do not result in a loss of required SDM.

/R1

The boron addition capability after the plant has been placed in MODES 5 and 6 requires either 3650 gallons of 2.5 to 3.5 weight percent boric acid solution (4371 to 6119 ppm boron) from the boric acid tanks or 11,900 gallons of 1720 ppm borated water from the refueling water tank to makeup for contraction of the primary coolant that could occur if the temperature is lowered from 200°F to 140°F.

The restrictions associated with the establishing of the flow path from the RWT to the RCS via a single HPSI pump provide assurance that 10 CFR 50 Appendix G pressure/temperature limits will not be exceeded in the case of any inadvertent pressure transient due to a mass addition to the RCS. If RCS pressure boundary integrity does not exist as defined in Specification 1.16, these restrictions are not required. Additionally, a limit on the maximum number of operable HPSI pumps is not necessary when the pressurizer manway cover or the reactor vessel head is removed.

Insert 1

SECTION NO.: 3/4.1	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 3 OF ADM-25.04 REACTIVITY CONTROL SYSTEMS ST. LUCIE UNIT 2	PAGE: 6 of 10
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3/4.1 **REACTIVITY CONTROL SYSTEMS** (continued)

BASES (continued)

3/4.1.2 **BORATION SYSTEMS** (continued)

Temperature changes in the RCS impose reactivity changes by means of the moderator temperature coefficient. Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SDM. Small changes in RCS temperature are unavoidable and so long as the required SDM is maintained during these changes, any positive reactivity additions will be limited to acceptable levels. Introduction of temperature changes must be evaluated to ensure they do not result in a loss of required SDM. /R1

The boron capability required below 200°F is based upon providing a SHUTDOWN MARGIN corresponding to its COLR limit after xenon decay and cooldown from 200°F to 140°F. This condition requires either 6750 gallons of 1720 ppm – 2100 ppm borated water from the refueling water tank or 3550 gallons of 2.5 to 3.5 weight percent boric acid solution from the boric acid makeup tanks.

The contained water volume limits includes allowance for water not available because of discharge line location and other physical characteristics.

The OPERABILITY of one boron injection system during REFUELING ensures that this system is available for reactivity control while in MODE 6.

The limits on contained water volume and boron concentration of the RWT also ensure a pH value of between 7.0 and 8.0 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components.

Insert 1

SECTION NO.: 3/4.5	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 7 OF ADM-25.04 EMERGENCY CORE COOLING SYSTEMS (ECCS) ST. LUCIE UNIT 1	PAGE: 4 of 5
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3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) (continued)

BASES (continued)

3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS

The OPERABILITY of two separate and independent ECCS subsystems ensures that sufficient emergency core cooling capability will be available in the event of a LOCA assuming the loss of one subsystem through any single failure consideration. Either subsystem operating in conjunction with the safety injection tanks is capable of supplying sufficient core cooling to limit the peak cladding temperatures within acceptable limits for all postulated break sizes ranging from the double ended break of the largest RCS cold leg pipe downward. In addition, each ECCS subsystem provides long term core cooling capability in the recirculation mode during the accident recovery period.

TS 3.5.2, ACTION a.1. provides an allowed outage/action completion time (AOT) of up to 7 days from initial discovery of failure to meet the LCO provided the affected ECCS subsystem is inoperable only because its associated LPSI train is inoperable. This 7 day AOT is based on the findings of a deterministic and probabilistic safety analysis and is referred to as a "risk-informed" AOT extension. Entry into this ACTION requires that a risk assessment be performed in accordance with the Configuration Risk Management Program (CRMP) which is described in the Administrative Procedure (ADM-17.08) that implements the Maintenance Rule pursuant to 10 CFR 50.65.

The Surveillance Requirements provided to ensure OPERABILITY of each component ensure that at a minimum, the assumptions used in the accident analyses are met and that subsystem OPERABILITY is maintained.

The limitations on HPSI pump operability when the RCS temperature is $\leq$ 270°F and $\leq$ 236°F, and the associated Surveillance Requirements provide additional administrative assurance that the pressure/temperature limits (Figures 3.4-2a and 3.4-2b) will not be exceeded during a mass addition transient mitigated by a single PORV. A limit on the maximum number of operable HPSI pumps is not necessary when the pressurizer manway cover or the reactor vessel head is removed.

Insert 2

SECTION NO.: 3/4.5	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 7 OF ADM-25.04 EMERGENCY CORE COOLING SYSTEMS (ECCS) ST. LUCIE UNIT 2	PAGE: 5 of 6
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3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS) (continued)

BASES (continued)

3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS (continued)

The requirement for one high pressure safety injection pump to be rendered inoperable prior to entering MODE 5, although the analysis supports actuation of safety injection in a water solid RCS with pressurizer heaters energized, provides additional administrative assurance that a mass addition pressure transient can be relieved by the operation of a single PORV or SDCRV. A limit on the maximum number of operable HPSI pumps is not necessary when the pressurizer manway cover or the reactor vessel head is removed.

along with appropriate post-maintenance

The Surveillance Requirements provided to ensure OPERABILITY of each component ensure that a minimum, the assumptions used in the accident analyses are met and that subsystem OPERABILITY is maintained. The Surveillance Requirements for throttle valve position stops and flow balance testing* provide assurance that proper ECCS flows will be maintained in the event of a LOCA. Maintenance of proper flow resistance and pressure drop in the piping system to each injection point is necessary to: (1) prevent total pump flow from exceeding runout conditions when the system is in its minimum resistance configuration, (2) provide the proper flow split between injection points in accordance with the assumptions used in the ECCS-LOCA analyses, and (3) provide an acceptable level of total ECCS flow to all injection points equal to or above that assumed in the ECCS-LOCA analyses. The requirement to dissolve a representative sample of TSP in a sample of RWT water provides assurance that the stored TSP will dissolve in borated water at the postulated post-LOCA temperatures.

Insert 2

The practice of calibrating and testing the SDC isolation valve interlock function below 515 psia (the current plant practice is to set and test the interlock function at 500 psia) meets the requirements of Technical Specification Surveillance 4.5.2.e.1. The staff accepted that testing the SDC isolation interlock at a more conservative setpoint demonstrates operability at and above the setpoint (NRC letter from William C. Gleaves to J.A. Stall dated November 2, 1999, subject "St. Lucie Unit 2 – Amendment Request Regarding Safety Injection Tank and Shutdown Cooling System Isolation Interlock Surveillances (TAC No. MA5619)."

* Refer to UFSAR for flow balancing requirements

SECTION NO.: 3/4.6	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 8 OF ADM-25.04 CONTAINMENT SYSTEMS ST. LUCIE UNIT 1	PAGE: 5 of 10
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3/4.6 CONTAINMENT SYSTEMS (continued)

BASES (continued)

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 CONTAINMENT SPRAY AND COOLING SYSTEMS

The OPERABILITY of the containment spray and cooling systems ensures that depressurization and cooling capability will be available to limit post-accident pressure and temperature in the containment to acceptable values. During a Design Basis Accident (DBA), at least two containment cooling trains or two containment spray trains, or one of each, is capable of maintaining the peak pressure and temperature within design limits. One containment spray train has the capability, in conjunction with the Spray Additive System, to remove iodine from the containment atmosphere and maintain concentrations below those assumed in the safety analyses. To ensure that these conditions can be met considering single-failure criteria, two spray trains and two cooling trains must be OPERABLE.

The 72 hour action interval specified in ACTION 1.a and ACTION 1.d, and the 7 day action interval specified in ACTION 1.b take into account the redundant heat removal capability and the iodine removal capability of the remaining operable systems, and the low probability of a DBA occurring during this period. The 10 day constraint for ACTIONS 1.a and 1.b is based on coincident entry into two ACTION conditions (specified in ACTION 1.c) coupled with the low probability of an accident occurring during this time. If the system(s) cannot be restored to OPERABLE status within the specified completion time, alternate actions are designed to bring the unit to a mode for which the LCO does not apply. The extended interval (54 hours) specified in ACTION 1.a to be in MODE 4 includes 48 hours of additional time for restoration of the inoperable CS train, and takes into consideration the reduced driving force for a release of radioactive material from the RCS when in MODE 3. With two containment spray trains or any combination of three or more containment spray and containment cooling trains inoperable in MODES 1, 2, or Mode 3 with Pressurizer Pressure $\geq$ 1750 psia, the unit is in a condition outside the accident analyses and LCO 3.0.3 must be entered immediately. In MODE 3 with Pressurizer Pressure < 1750 psia, containment spray is not required.

The specifications and bases for LCO 3.6.2.1 are consistent with NUREG-1432, Revision 0 (9/28/92), Specification 3.6.6A (Containment Spray and Cooling Systems; Credit taken for iodine removal by the Containment Spray System), and the plant safety analyses.

Insert 3

SECTION NO.: 3/4.6	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 8 OF ADM-25.04 CONTAINMENT SYSTEMS ST. LUCIE UNIT 2	PAGE: 6 of 12
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3/4.6 **CONTAINMENT SYSTEMS** (continued)

BASES (continued)

3/4.6.2 **DEPRESSURIZATION AND COOLING SYSTEMS**

3/4.6.2.1 **CONTAINMENT SPRAY AND COOLING SYSTEMS**

The OPERABILITY of the containment spray and cooling systems ensures that depressurization and cooling capability will be available to limit post-accident pressure and temperature in the containment to acceptable values. During a Design Basis Accident (DBA), at least two containment cooling trains or two containment spray trains, or one of each, is capable of maintaining the peak pressure and temperature within design limits. One containment spray train has the capability, in conjunction with the Iodine Removal System, to remove iodine from the containment atmosphere and maintain concentrations below those assumed in the safety analyses. To ensure that these conditions can be met considering single-failure criteria, two spray trains and two cooling trains must be OPERABLE.

The 72 hour action interval specified in ACTION 1.a and ACTION 1.d, and the 7 day action interval specified in ACTION 1.b take into account the redundant heat removal capability and the iodine removal capability of the remaining operable systems, and the low probability of a DBA occurring during this period. The 10 day constraint for ACTIONS 1.a and 1.b is based on coincident entry into two ACTION conditions (specified in ACTION 1.c) coupled with the low probability of an accident occurring during this time. If the system(s) cannot be restored to OPERABLE status within the specified completion time, alternate actions are designed to bring the unit to a mode for which the LCO does not apply. The extended interval (54 hours) specified in ACTION 1.a to be in MODE 4 includes 48 hours of additional time for restoration of the inoperable CS train, and takes into consideration the reduced driving force for a release of radioactive material from the RCS when in MODE 3. With two containment spray trains or any combination of three or more containment spray and containment cooling trains inoperable in MODES 1, 2, or Mode 3 with Pressurizer Pressure $\geq$ 1750 psia, the unit is in a condition outside the accident analyses and LCO 3.0.3 must be entered immediately. In MODE 3 with Pressurizer Pressure < 1750 psia, containment spray is not required.

The specifications and bases for LCO 3.6.2.1 are consistent with NUREG-1432, Revision 0 (9/28/92), Specification 3.6.6A (Containment Spray and Cooling Systems; Credit taken from Iodine removal by the Containment Spray System), and the plant safety analyses.

Insert 3

Insert 1

Ensuring that the BAM pump discharge pressure is met satisfies the periodic surveillance requirement to detect gross degradation caused by impeller structural damage or other hydraulic component problems. Along with this requirement, Section XI of the ASME Code verifies the pump developed head at one point of the pump characteristic curve to verify both that the measured performance is within an acceptable tolerance of the original pump baseline performance and that the performance at the test flow is greater than or equal to the performance assumed in the unit safety analysis. Surveillance Requirements are specified in the Inservice Testing Program, which encompasses Section XI of the ASME Code. Section XI of the ASME Code provides the activities and frequencies necessary to satisfy the requirements.

Insert 2

Periodic surveillance testing of ECCS pumps to detect gross degradation caused by impeller structural damage or other hydraulic component problems is required by Section XI of the ASME Code. This type of testing may be accomplished by measuring the pump developed head at only one point of the pump characteristic curve. This verifies both that the measured performance is within an acceptable tolerance of the original pump baseline performance and that the performance at the test flow is greater than or equal to the performance assumed in the unit safety analysis. Surveillance Requirements are specified in the Inservice Testing Program, which encompasses Section XI of the ASME Code. Section XI of the ASME Code provides the activities and frequencies necessary to satisfy the requirements.

Insert 3

Ensuring that the containment spray pump discharge pressure is met satisfies the periodic surveillance requirement to detect gross degradation caused by impeller structural damage or other hydraulic component problems. Along with this requirement, Section XI of the ASME Code verifies the pump developed head at one point of the pump characteristic curve to verify both that the measured performance is within an acceptable tolerance of the original pump baseline performance and that the performance at the test flow is greater than or equal to the performance assumed in the unit safety analysis. Surveillance Requirements are specified in the Inservice Testing Program, which encompasses Section XI of the ASME Code. Section XI of the ASME Code provides the activities and frequencies necessary to satisfy the requirements.