Nuclear Operating Company
South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

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10CFR50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Proposed Amendment to Technical Specification 3/4.6.2,
"Depressurization and Cooling Systems"

Pursuant to 10CFR50.90, the South Texas Project requests approval of an amendment to the Unit 1 and Unit 2 Operating Licenses revising Technical Specification 3/4.6.2, "Depressurization and Cooling Systems." The proposed amendment revises surveillance requirement 4.6.2.1 for demonstrating operability of Containment Spray System spray nozzles.

The Containment Spray System nozzles are currently required to be air or smoke-flow tested at ten-year intervals to confirm operability. The requested change proposes that verification of spray nozzle operability be required only after spray ring header maintenance that could result in nozzle obstruction, without specifying the method of verification. The Technical Specification Bases will be revised to address methods for verifying nozzle operability, with the added option of visual verification.

An evaluation of the proposed change, the proposed replacement pages of the Technical Specifications and Technical Specification Bases, and a summary of commitments are provided as attachments to this letter. This change will have no adverse impact on the public health and safety.

The South Texas Project has reviewed the proposed amendment pursuant to 10CFR50.92 and determined that it does not involve a significant hazards consideration. In addition, the South Texas Project has determined that the proposed amendment satisfies the criteria of 10CFR51.22(c)(9) for categorical exclusion from the requirement for an environmental assessment. The South Texas Project Nuclear Safety Review Board has reviewed and approved the proposed changes.

The NRC approved a similar license amendment for Perry Nuclear Power Station on June 29, 2000 (TAC No. MA7136).

In accordance with 10CFR50.91(b), the South Texas Project also provides a copy of this proposed amendment to the State of Texas.

The next surveillance is required to be performed during refueling outages beginning in March 2004. The South Texas Project requests Nuclear Regulation Commission approval of this proposed change by December 31, 2003. Implementation of the proposed Technical

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Specification change will require procedure changes and rescheduling of affected surveillances. The South Texas Project requests 30 days following approval by the NRC to allow for implementation of supporting revisions.

If there are any questions, please contact either Mr. P. L. Walker at (361) 972-8392 or me at (361) 972-8757.

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

Executed on 5/14/03.

J. J. Sheppard
President and Chief Executive Officer

PLW

Attachments:
1) Licensee Evaluation
2) Proposed Technical Specification and Bases Changes
3) Summary of Commitments

cc:
(paper copy)

Ellis W. Merschoff
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Richard A. Ratliff
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

Cornelius F. O'Keefe
U. S. Nuclear Regulatory Commission
P. O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

(electronic copy)

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP

L. D. Blaylock
City Public Service

Mohan C. Thadani
U. S. Nuclear Regulatory Commission

R. L. Balcom
Texas Genco, LP

A. Ramirez
City of Austin

C. A. Johnson
AEP Texas Central Company

Jon C. Wood
Matthews & Branscomb

ATTACHMENT 1

SOUTH TEXAS PROJECT

LICENSEE EVALUATION

PROPOSED AMENDMENT TO TECHNICAL SPECIFICATION 3/4.6.2, "DEPRESSURIZATION AND COOLING SYSTEMS"

SOUTH TEXAS PROJECT
UNITS 1 & 2
PROPOSED AMENDMENT TO TECHNICAL SPECIFICATION 3/4.6.2,
"DEPRESSURIZATION AND COOLING SYSTEMS"

1.0 INTRODUCTION

The South Texas Project requests approval of an amendment to Technical Specification Surveillance Requirement 4.6.2.1. The Containment Spray System ring nozzles are currently required to be air or smoke-flow tested at ten-year intervals to confirm that there is no blockage. The requested change proposes that verification of spray nozzle operability be required only after Containment Spray System maintenance that could result in nozzle obstruction, and that visual verification also be allowed. The Technical Specification Bases will address the methods for verifying nozzle operability.

2.0 PROPOSED CHANGE

The South Texas Project proposes that Technical Specification Surveillance Requirement 4.6.2.1.d be revised to remove the requirement that an air or smoke flow test be performed at least once per 10 years to confirm that each Containment spray nozzle is unobstructed. Under the proposed requirement, demonstration of operability is not limited to a specific schedule.

- Current requirement:

  4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

  d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

- Proposed requirement:

  4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

  d. By verifying each spray nozzle is unobstructed following maintenance activities that could result in spray nozzle blockage.

Consistent with this proposed change, the Technical Specification Bases will be amended to address the means used to confirm that the spray nozzles are unobstructed. The annotated Bases page is included in Attachments 2 and 3 "for information only."

A similar license amendment was approved by the Nuclear Regulatory Commission for Perry Nuclear Power Station on June 29, 2000 (TAC No. MA7136).

3.0 BACKGROUND

3.1 SYSTEM DESCRIPTION

The Containment Spray System is an Engineered Safety Feature used in response to a postulated Loss of Coolant Accident (LOCA). In response to a LOCA, the Containment Spray System is designed to:

- Maintain Reactor Containment Building pressure within design limits.
- Reduce the quantity of airborne iodine.
- Establish the sump pH to retain elemental iodine.

These functions are performed by subcooled water sprayed into the Containment atmosphere through nozzles from spray headers located in the Containment dome. The large spray drop surface-to-Containment volume ratio enables the spray to effectively remove fission products from the Containment atmosphere. The major benefit of the Containment Spray System is removal of iodine from the Containment atmosphere. (Radioiodine in its various forms is the fission product of primary concern in evaluating the consequences of a LOCA.)

The Containment Spray System consists of three independent and identical trains. Two of the three trains are assumed to be available to provide 100 percent of the required water flow to the spray headers mounted in the Containment dome.

- **Spray Headers**

  Four concentric spray headers are located in the domed roof of the Containment building, providing 360-degree coverage over the Containment volume. The spray headers are located as high as possible without interruption of the spray pattern by impingement on the inside of the Containment dome. Piping to the spray headers assures delivery of 100 percent of the required spray flow assuming any single active failure.

- **Spray Nozzles**

  The Containment Spray System nozzles are distributed on four concentric spray ring headers located in the uppermost part of the Containment. The ring headers have 12, 50, 60, and 120 nozzles, respectively.

Containment spray nozzles are SPRACO Type-1713A. The spray nozzles are hollow-cone, with a 3/8-inch-diameter orifice, and are fabricated from stainless steel. These nozzles have a swirl chamber design (referred to as "ramp bottom" by SPRACO) with no internal parts, such as swirl vanes, that may be subject to clogging. The 3/8-inch nozzle discharge orifice is sufficiently large to preclude clogging by particles that pass through the 1/4-inch mesh of the fine containment sump screens.

3.2 NOZZLE TESTING

The Containment Spray System nozzles were initially tested at five-year intervals. As approved by the Nuclear Regulatory Commission in license amendments 91 (Unit 1) and 84 (Unit 2) dated March 11, 1998, the surveillance interval is currently ten years.

The Containment Spray System nozzles have been tested to confirm that there are no obstructions. Airflow tests were conducted as part of pre-operational testing and for the first five-year interval.

Test	Unit 1	Unit 2
Pre-Operational	1986	1987
TS Surveillance	1992	1993

The results of each test demonstrated unobstructed flow through each nozzle. These tests confirmed that the nozzles are free from construction debris, and also free from obstructions that could have occurred following startup and operation of the units. Also,

the tests show that the spray nozzles did not become obstructed over a period of normal reactor operation.

4.0 TECHNICAL ANALYSIS

4.1 CORROSION

The South Texas Project spray ring headers are maintained dry. Standing water is present in system piping up to the 43-foot elevation. Formation of significant corrosion products is unlikely because the components are stainless steel.

The containment spray system header and nozzles are passive devices that are not normally exposed to fluids or debris. The system piping and nozzles are fabricated of stainless steel, which is highly resistant to corrosion, especially in a low-stress application such as at the South Texas Project. Conditions for stainless steel corrosion, i.e., stress, temperature, and chlorides, are not present. Therefore, the nozzles are unlikely to become obstructed due to corrosion.

4.2 MAINTENANCE

A review of the maintenance and modification history since the last air flow test indicates that work orders and modifications have been implemented on Containment Spray isolation valves and pumps. However, there has been no maintenance or modification to the nozzles or spray rings. Modifications associated with the valves were for operator adjustments and would not have affected system cleanliness. Cleanliness control practices, including post-work inspections, ensure system cleanliness requirements are met.

4.3 INSPECTION METHODS

The Technical Specifications currently require that the spray nozzles be tested for obstruction using either air flow or smoke flow. The Technical Specification Bases will address the means by which the nozzles are confirmed to be unobstructed. Verification by visual inspection will be included as an option.

4.4 PREVIOUS EXPERIENCE

NUREG-1366, "Improvements to Technical Specification Requirements," is a review of industry operating history to determine the cause of problems discovered when performing this surveillance. In all cases, the problems discovered were related to construction, and not the result of normal operation.

NRC Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993, described a problem at San Onofre Unit 1 that was caused because sodium silicate, a coating material applied to the Containment Spray system carbon steel piping, clogged seven nozzles. The South Texas Project Containment Spray system piping and nozzles are stainless steel and are not coated. Therefore, that concern is not applicable to the South Texas Project.

The Containment Spray system nozzles for both South Texas Project units have been tested satisfactorily twice since completion of construction, demonstrating that the construction problems identified in NUREG-1366 do not exist at the South Texas Project.

4.5 FOREIGN MATERIAL EXCLUSION

The South Texas Project Foreign Material Exclusion Program describes the measures

to be taken to ensure foreign material is not introduced into a component or system, or to recover if foreign material is introduced. The Foreign Material Exclusion program requires that when closing a system or component, an inspection be performed to ensure that all foreign material is removed. This requirement applies to all work activities and inspection activities on plant system and components performed by any group at STP. If required foreign material exclusion is not maintained, a Condition Report is to be initiated requiring assessment of the circumstances and implementation of appropriate corrective actions to ensure the spray nozzles continue to be operable and to prevent recurrence.

When maintenance requires a breach of a fluid system or associated component integrity, implementation of procedural guidelines for station housekeeping will prevent inadvertent introduction of foreign material into the system/component. Any fluid system/component breach is to be covered when access for maintenance or inspection is not required.

Due to its location at the top of the containment, introduction of foreign material into the spray header is unlikely. Foreign material introduced as a result of maintenance is the most likely cause for obstruction; therefore, verification following such maintenance would suffice to confirm the nozzles are free from blockage. Consequently, the potential for unidentified nozzle obstruction is very low.

In general, once tested after construction, containment spray systems have not been subject to blockage. Routine maintenance activities with effective application of foreign material exclusion controls should not require subsequent inspection or testing of the spray nozzles. Normal plant operation and maintenance practices are not expected to trigger this surveillance requirement.

4.6 RISK ANALYSIS

Accident analyses are based on two of the three Containment Spray trains operating. Two operable Containment Spray pumps assure that the pressure across the upper spray ring nozzles is adequate to provide the design flowrate. The calculated spray coverage inside the containment assures that after a design-basis accident the offsite dose is within Part 100 limits and the 30-day control room dose is within design guidelines. However, these criteria are not applicable to the Probabilistic Safety Assessment, and neither are the conservatisms applied to the design-basis analysis. The best estimate one-pump flowrate is nearly as great as the design two-pump flow rate, and one pump will provide adequate pressure across the lower ring nozzles.

The Probabilistic Safety Assessment does not address reduction of containment spray capability as a result of nozzle blockage.

4.7 ASSESSMENT

Reduced testing is justified where operating experience has shown that routinely passing a surveillance test performed at a specified interval has no apparent connection to overall component reliability. In this case, routine surveillance testing at the specified frequency is not connected to any activity that may initiate reduced component reliability, and therefore is of limited value in ensuring component reliability. Therefore, the proposed change is not significant from a reliability standpoint.

The surveillance affects refueling activities in the reactor containment building, presents a personal safety risk for the individuals required to access the top of containment to check the nozzle air flow, and is expensive to implement. The cost associated with performing

this test is not commensurate with the safety benefit unless there has been an activity that could result in nozzle blockage due to foreign material.

5.0 REGULATORY ANALYSES

5.1 EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

In accordance with the requirements of 10CFR50.92, the proposed amendment involves no significant hazards based upon the following:

1. **Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

   The Containment Spray System is not considered an initiator of any analyzed event. The proposed change does not have a detrimental impact on the integrity of any plant structure, system, or component that may initiate an analyzed event. The proposed change will not alter the operation or otherwise increase the failure probability of any plant equipment that can initiate an analyzed accident.

   This change does not affect the plant design. There is no increase in the likelihood of formation of significant corrosion products. Due to their location at the top of the containment, introduction of foreign material into the spray headers is unlikely. Foreign material introduced during maintenance activities would be the most likely source for obstruction, and verification following such maintenance would confirm the nozzles remain unobstructed.

   Consequently, there is no significant increase in the probability of an accident previously evaluated.

   The Containment Spray System is designed to address the consequences of a LOCA. The Containment Spray System is capable of performing its function effectively with the single failure of any active component in the system, any of its subsystems, or any of its support systems. A plugged nozzle would have negligible impact on the capability of the Containment Spray System to respond to a Loss of Coolant Accident.

   Therefore, the consequences of an accident previously evaluated are not significantly affected by the proposed change.

2. **Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?**

   The proposed change will not physically alter the plant (no new or different type of equipment will be installed) or change the methods governing normal plant operation. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does the proposed amendment involve a significant reduction in a margin of safety?**

   The system is not susceptible to corrosion-induced obstruction or obstruction from sources external to the system. Maintenance activities that could introduce foreign material into the system would require subsequent verification to ensure there is no nozzle blockage. The spray header nozzles are expected to remain unblocked and available in the event that the safety function is required. Therefore, the capacity of the system would remain unaffected. Hence, this change does not involve a significant reduction in a margin of safety.

5.2 APPLICABLE REGULATORY REQUIREMENTS

- **10CFR50 Appendix A, Criterion 39 – Inspection of Containment Heat Removal Systems:**

  The containment heat removal system shall be designed to permit appropriate periodic inspection of important components, such as the torus, sumps, spray nozzles, and piping to assure the integrity and capability of the system.

  Evaluation

  Provisions have been made to facilitate periodic inspections of active components and other important equipment in the Containment Heat Removal System.

- **10CFR50 Appendix A, Criterion 40 – Testing of Containment Heat Removal Systems:**

  The containment heat removal system shall be designed to permit appropriate periodic pressure and functional testing to assure:

  (1) The structural and leaktight integrity of its components,

  (2) The operability and performance of the active components of the system, and

  (3) The operability of the system as a whole, and under conditions as close to the design as practical performance of the full operational sequence that brings the system into operation, including operation of applicable portions of the protection system, the transfer between normal and emergency power sources, and the operation of the associated cooling water system.

  Evaluation

  The Containment Heat Removal System is provided with sufficient test connections and isolation valves to permit periodic pressure testing. System piping, valves, pumps, heat exchangers, and other components of the Containment Heat Removal System are arranged so that each component can be tested periodically for operability, including transfer to the standby power system. The delivery capability of the Containment Spray System is tested periodically to the extent practicable up to the last isolation valves preceding the spray nozzles. The delivery capability of the spray nozzles is (has been) tested periodically by blowing low-pressure air through the nozzles and verifying the flow. The Containment Spray System is tested for operational sequence under conditions as close to design conditions as practicable.

- **ASME Paragraph IWC-5222(d) – System Hydrostatic Test**

  For open-ended portions of discharge lines beyond the last shutoff valve in non-closed systems (e.g., containment spray header), demonstration of an open flow path test shall be performed in lieu of the system hydrostatic test.

  Evaluation

  This requirement will be reflected in the Technical Specification Bases.

5.3 ENVIRONMENTAL CONSIDERATION

The proposed amendment would change a surveillance requirement. However, this amendment request meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9) as follows:

(i) The amendment involves no significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupation radiation exposure.

Consequently, the proposed change meets the criteria for categorical exclusion from the requirements of 10CFR51.22 for an environmental assessment.

6.0 CONCLUSION

The proposed change in the surveillance requirement for the containment spray ring header nozzles will not alter assumptions relative to mitigation of an accident or transient event and will not adversely affect normal plant operation and testing. Therefore, the proposed change is consistent with the current safety analysis assumptions.

7.0 IMPLEMENTATION

The South Texas Project requests Nuclear Regulation Commission approval of this proposed change by December 31, 2003. Implementation of the proposed Technical Specification change will require procedure changes and rescheduling of affected surveillances. The South Texas Project requests 30 days following approval by the NRC to allow for implementation of supporting revisions.

ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATION AND BASES CHANGES

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Three independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

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 in its correct position;

b. By verifying on a STAGGERED TEST BASIS, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 283 psid when tested pursuant to Specification 4.0.5;

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 Containment Pressure High 3 test signal, and

2) Verifying that each spray pump starts automatically on a Containment Pressure High 3 test signal coincident with a sequencer start signal.

d. ~~At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.~~

By verifying each spray nozzle is unobstructed following maintenance activities that could result in spray nozzle blockage.

CONTAINMENT VENTILATION SYSTEM (Continued)

fore, the SITE BOUNDARY dose guidelines of 10 CFR 100 would not be exceeded in the event of an accident during containment PURGING operation.

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. Allowed leakage rates will be governed by the Containment Leakage Rate Program.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS – BASES

3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System both provide post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

Operability of the Containment Spray System is confirmed following maintenance activities that can result in obstruction of spray nozzle flow. Confirmation that the spray nozzles are unobstructed may be obtained by a visual inspection, or by an air or smoke flow test.

3/4.6.2.2 RECIRCULATION FLUID pH CONTROL SYSTEM

The operability of the recirculation fluid pH control system ensures that there is sufficient trisodium phosphate available in containment to guarantee a sump pH of ≥7.0 during the recirculation phase of a postulated LOCA. This pH level is required to reduce the potential for chloride induced stress corrosion of austenitic stainless steel and assure the retention of iodine in the recirculating fluid. The specified amount of TSP will result in a recirculation fluid pH between 7.0 and 9.5.

3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the Containment Cooling System ensures that: (1) the containment air temperature will be maintained within limits during normal operation, and (2) adequate heat removal capacity is available when operated in conjunction with the Containment Spray Systems during post LOCA conditions.

ATTACHMENT 3

REVISED TECHNICAL SPECIFICATION PAGE

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Three independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

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 in its correct position;

b. By verifying on a STAGGERED TEST BASIS, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 283 psid when tested pursuant to Specification 4.0.5;

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 Containment Pressure High 3 test signal, and

2) Verifying that each spray pump starts automatically on a Containment Pressure High 3 test signal coincident with a sequencer start signal.

d. By verifying each spray nozzle is unobstructed following maintenance activities that could result in spray nozzle blockage.

CONTAINMENT VENTILATION SYSTEM (Continued)

fore, the SITE BOUNDARY dose guidelines of 10 CFR 100 would not be exceeded in the event of an accident during containment PURGING operation.

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. Allowed leakage rates will be governed by the Containment Leakage Rate Program.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS – BASES

3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System both provide post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

Operability of the Containment Spray System is confirmed following maintenance activities that can result in obstruction of spray nozzle flow. Confirmation that the spray nozzles are unobstructed may be obtained by a visual inspection, or by an air or smoke flow test.

3/4.6.2.2 RECIRCULATION FLUID PH CONTROL SYSTEM

The operability of the recirculation fluid pH control system ensures that there is sufficient trisodium phosphate available in containment to guarantee a sump pH of $\geq$7.0 during the recirculation phase of a postulated LOCA. This pH level is required to reduce the potential for chloride induced stress corrosion of austenitic stainless steel and assure the retention of iodine in the recirculating fluid. The specified amount of TSP will result in a recirculation fluid pH between 7.0 and 9.5.

3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the Containment Cooling System ensures that: (1) the containment air temperature will be maintained within limits during normal operation, and (2) adequate heat removal capacity is available when operated in conjunction with the Containment Spray Systems during post LOCA conditions.

ATTACHMENT 4

LIST OF COMMITMENTS

The Technical Specification Bases will be revised to address the methods for verifying nozzle operability, with the added option of visual verification.