



Christopher L. Burton  
Vice President  
Harris Nuclear Plant  
Progress Energy Carolinas, Inc.

FEB 26 2009

Serial: HNP-09-016  
10 CFR 50.90

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

DOCKET NO. 50-400/LICENSE NO. NPF-63  
APPLICATION FOR TECHNICAL SPECIFICATION  
IMPROVEMENT TO ELIMINATE REQUIREMENTS FOR  
HYDROGEN RECOMBINERS AND HYDROGEN  
MONITORS

Ladies and Gentlemen:

In accordance with the Code of Federal Regulations 10 CFR 50.90, Carolina Power & Light Company (CP&L) doing business as Progress Energy Carolinas, Inc. (PEC), requests an amendment to Appendix A, Technical Specifications (TS), of Facility Operating License No. NPF-63 for Shearon Harris Nuclear Power Plant, Unit No. 1 (HNP).

The proposed amendment will delete the TS requirements related to hydrogen recombiners and hydrogen monitors. The proposed TS changes support implementation of the revisions to 10 CFR 50.44, "Combustible Gas Control for Nuclear Power Reactors," that became effective on October 16, 2003. These changes are consistent with Revision 1 of NRC-approved Technical Specifications Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-447, "Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors." The availability of this TS improvement was announced in the *Federal Register* on September 25, 2003, (68 FR 55416).

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications and commitments.

Attachment 2 provides a markup of the affected TS pages.

Attachment 3 provides the retyped TS pages.

Attachment 4 includes the proposed TS Bases Changes (For Information Only).

Attachment 5 contains the Regulatory Commitment in accordance with TSTF-447, Rev. 1.

P.O. Box 165  
New Hill, NC 27562

T > 919.362.2502  
F > 919.362.2095

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HNP requests approval of the proposed License Amendment by February 2010, with implementation to occur within 90 days of approval. This requested approval date has been administratively selected to accommodate a normal NRC review time.

In accordance with 10 CFR 50.91(b), HNP is providing the State of North Carolina with a copy of the proposed license amendment.

Please refer any question regarding this submittal to Mr. Dave Corlett at (919) 362-3137.

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

[ **FEB 26 2009** ]

Sincerely,



Christopher L. Burton  
Vice President  
Harris Nuclear Plant

CLB/kms

- Attachments:
1. Description and Assessment
  2. Proposed Technical Specification Changes
  3. Revised Technical Specification Pages
  4. Proposed Technical Specification Bases Changes (For Information Only)
  5. Regulatory Commitment

cc: Mr. J. D. Austin, NRC Sr. Resident Inspector, HNP  
Ms. B. O. Hall, N.C. DENR Section Chief  
Mr. L. A. Reyes, NRC Regional Administrator, Region II  
Ms. M. G. Vaaler, NRC Project Manager, HNP

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HYDROGEN RECOMBINERS AND HYDROGEN MONITORS

Subject: Amendment Request for Technical Specification Improvement to Eliminate Requirements for Hydrogen Recombiners and Hydrogen Monitors per TSTF-447, Rev. 1

- 1.0 INTRODUCTION
- 2.0 DESCRIPTION OF PROPOSED CHANGES
- 3.0 BACKGROUND
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**1.0 INTRODUCTION**

The proposed License amendment deletes Technical Specification (TS) 3/4.6.4, "Hydrogen Monitors" and "Electric Hydrogen Recombiners." The proposed TS changes support implementation of the revisions to 10 CFR 50.44, "Combustible Gas Control for Nuclear Power Reactors," that became effective on October 16, 2003.

When the NRC amended 10 CFR 50.44, the requirements for a hydrogen recombiner were eliminated and the requirements for containment hydrogen monitoring relaxed. Although the revised rule for the hydrogen monitors allows removal of the hydrogen monitors from the TS, their downgrade from Category 1 to Category 3 for Regulatory Guide 1.97 compliance and downgrading to non-safety-related classification, the containment hydrogen monitors are required to continue to be maintained.

A generic Improved Standard TS (ISTS) change for the deletion of the hydrogen recombiner and relaxation of the requirements for hydrogen monitors was prepared by the Technical Specification Task Force (TSTF) and approved by the NRC as TSTF-447, Revision 1, "Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors," on September 25, 2003, (68 FR 55416). This TSTF was also incorporated into the Consolidated Line Item Improvement Process (CLIIP). An example submittal and a generic NRC safety evaluation were prepared as part of the CLIIP.

Although HNP has not incorporated Standard Technical Specifications, the technical justification and safety evaluation presented in the TSTF/CLIIP related to hydrogen monitors and hydrogen recombiners are consistent with HNP design and procedures and with this proposed TS change. In accordance with Regulatory Issue Summary (RIS) 2000-06, "Consolidated Line Item Improvement Process for Adopting Standard Technical Specifications Changes for Power Reactors," once the NRC has accepted a TSTF change, licensees are able to use the relevant documentation in the preparation of license amendment applications. The following excerpts are provided from the TSTF/CLIIP documentation:

"Hydrogen Monitoring Equipment:

Section 50.44(b)(1), the STS, and plant-specific TS currently contain requirements for monitoring hydrogen. Licensees have also made commitments to design and qualification criteria for hydrogen monitors in Item II.F.1, Attachment 6 of NUREG-0737 and Regulatory Guide (RG) 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident." The hydrogen monitors are required to assess the degree of core damage during a beyond design-basis accident and confirm that random or deliberate ignition has taken place. If an explosive mixture that could threaten containment

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integrity exists during a beyond design-basis accident, then other severe accident management strategies, such as purging and/or venting, would need to be considered. The hydrogen monitors are needed to implement these severe accident management strategies.

With the elimination of the design-basis LOCA hydrogen release, hydrogen monitors are no longer required to mitigate design-basis accidents and, therefore, the hydrogen monitors do not meet the definition of a safety-related component as defined in 10 CFR 50.2. RG 1.97 recommends classifying the hydrogen monitors as Category 1. RG Category 1, is intended for key variables that most directly indicate the accomplishment of a safety function for design-basis accident events and, therefore, are items usually addressed within TS. As part of the rulemaking to revise 10 CFR 50.44, the Commission found that the hydrogen monitors no longer meet the definition of Category 1 in RG 1.97. The Commission concluded that Category 3, as defined in RG 1.97, is an appropriate categorization for the hydrogen monitors because the monitors are required to diagnose the course of beyond design-basis accidents. Hydrogen monitoring is not the primary means of indicating a significant abnormal degradation of the reactor coolant pressure boundary. Section 4 of Attachment 2 to SECY-00-0198, "Status Report on Study of Risk-Informed Changes to the Technical Requirements of 10 CFR Part 50 (Option 3) and Recommendations on Risk-Informed Changes to 10 CFR 50.44 (Combustible Gas Control)," found that the hydrogen monitors were not risk-significant. Therefore, the staff finds that hydrogen monitoring equipment requirements no longer meet any of the four criteria in 10 CFR 50.36(c)(2)(ii) for retention in TS and, therefore, may be relocated to other licensee-controlled documents.

Note: The elimination of Post-Accident Sampling System requirements for some plant-specific TS (and associated CLIIP notices) indicated that during the early phases of an accident, safety-grade hydrogen monitors provide an adequate capability for monitoring containment hydrogen concentration. The staff has subsequently concluded that Category 3 hydrogen monitors also provide an adequate capability for monitoring containment hydrogen concentration during the early phases of an accident.

However, because the monitors are required to diagnose the course of beyond design-basis accidents, each licensee should verify that it has, and make a regulatory commitment to maintain, a hydrogen monitoring system capable of diagnosing beyond design-basis accidents."

"Hydrogen Recombiners:

The revised 10 CFR 50.44 no longer defines a design-basis LOCA hydrogen release, and eliminates requirements for hydrogen control systems to mitigate such a release. The installation of hydrogen recombiners and/or vent and purge systems required by 10 CFR 50.44(b)(3) was intended to address the limited quantity and rate of hydrogen generation that was postulated from a design-basis LOCA. The Commission has found that this hydrogen release is not risk-significant because the design-basis

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LOCA hydrogen release does not contribute to the conditional probability of a large release up to approximately 24 hours after the onset of core damage. In addition, these systems were ineffective at mitigating hydrogen releases from risk-significant beyond design-basis accidents. Therefore, the Commission eliminated the hydrogen release associated with a design-basis LOCA from 10 CFR 50.44 and the associated requirements that necessitated the need for the hydrogen recombiners and the backup hydrogen vent and purge systems. As a result, the staff finds that requirements related to hydrogen recombiners no longer meet any of the four criteria in 10 CFR 50.36(c)(2)(ii) for retention in TS and may be relocated to other licensee-controlled documents for all plants.”

**2.0 DESCRIPTION OF PROPOSED CHANGES**

Consistent with the NRC-approved Revision 1 of TSTF-447, the proposed TS changes are:

TS 3/4.6.4	Combustible Gas Control	Delete
TS Bases 3/4.6.4	Combustible Gas Control	Delete

**3.0 BACKGROUND**

The background for this application is adequately addressed by the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, Rev. 1, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

**4.0 REGULATORY REQUIREMENTS AND GUIDANCE**

The applicable regulatory requirements and guidance associated with this application are adequately addressed by the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, Rev. 1, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

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**5.0 TECHNICAL ANALYSIS**

HNP has reviewed the Model Safety Evaluation (SE) published on September 25, 2003, (68 FR 55416) as part of the CLIP Notice of Availability. This verification included a review of the NRC staff's SE, as well as the supporting information provided to support TSTF-447, Rev. 1. HNP has concluded that the justifications presented in the TSTF proposal and the SE prepared by the NRC staff are applicable to HNP Unit 1 and justify this emergency amendment for the incorporation of the changes to the HNP TS.

**6.0 REGULATORY ANALYSIS**

A description of this proposed change and its relationship to applicable regulatory requirements and guidance was provided in the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, Rev. 1 the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

**6.1 Verification and Commitments**

As discussed in the model SE published in the *Federal Register* on September 25, 2003, (68 FR 55416), for this TS improvement, HNP is making the following verifications and regulatory commitments:

1. HNP has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at HNP and is making a regulatory commitment to maintain that capability. The hydrogen monitors will be included in the licensee-controlled FSAR. This regulatory commitment will be implemented within 90 days of issuance of the license amendment.

The requirement for maintaining a hydrogen monitoring system designed to the Category 3 criteria of Regulatory Guide 1.97 will be included in the HNP Final Safety Analysis Report (FSAR) in the next FSAR update following implementation of the proposed TS amendment.

2. Since HNP does not have an inerted containment, an oxygen monitoring system is not applicable.

Based on the preceding analysis, removal of the hydrogen monitor and hydrogen recombiner requirements from the HNP TS is justified in accordance with the referenced model SE.

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**7.0 NO SIGNIFICANT HAZARDS CONSIDERATION**

Carolina Power & Light Company, also known as Progress Energy Carolinas, Inc. (PEC), is proposing a change to Appendix A, Technical Specifications, of Facility Operating License No. NPF-63 for Shearon Harris Nuclear Power Plant, Unit No. 1. The proposed change deletes the requirements for containment hydrogen monitors and hydrogen recombiners from Technical Specifications Section 3/4.6.4.

As presented in the Model No Significant Hazards Consideration Determination (68 FR 55416), the TSTF has evaluated whether or not a significant hazards consideration is involved with the proposed generic change. An analysis of the issue of no significant hazards consideration is presented below:

*Criterion 1 - The Proposed Change Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated*

The revised 10 CFR 50.44 no longer defines a design-basis loss-of-coolant accident (LOCA) hydrogen release, and eliminates requirements for hydrogen control systems to mitigate such a release. The installation of hydrogen recombiners and/or vent and purge systems required by 10 CFR 50.44(b)(3) was intended to address the limited quantity and rate of hydrogen generation that was postulated from a design-basis LOCA. The Commission has found that this hydrogen release is not risk-significant because the design-basis LOCA hydrogen release does not contribute to the conditional probability of a large release up to approximately 24 hours after the onset of core damage. In addition, these systems were ineffective at mitigating hydrogen releases from risk-significant accident sequences that could threaten containment integrity.

With the elimination of the design-basis LOCA hydrogen release, hydrogen monitors are no longer required to mitigate design-basis accidents and, therefore, the hydrogen monitors do not meet the definition of a safety-related component as defined in 10 CFR 50.2. RG 1.97 Category 1, is intended for key variables that most directly indicate the accomplishment of a safety function for design-basis accident events. The hydrogen monitors no longer meet the definition of Category 1 in RG 1.97. As part of the rulemaking to revise 10 CFR 50.44 the Commission found that Category 3, as defined in RG 1.97, is an appropriate categorization for the hydrogen monitors because the monitors are required to diagnose the course of beyond design-basis accidents.

The regulatory requirements for the hydrogen monitors can be relaxed without degrading the plant emergency response. The emergency response, in this sense, refers to the methodologies used in ascertaining the condition of the reactor core, mitigating the consequences of an accident, assessing and projecting offsite releases of radioactivity, and establishing protective action recommendations to be communicated to offsite

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authorities. Classification of the hydrogen monitors as Category 3 and removal of the hydrogen monitors from TS will not prevent an accident management strategy through the use of the SAMGs, the emergency plan (EP), the emergency operating procedures (EOP), and site survey monitoring that support modification of emergency plan protective action recommendations (PARs).

Therefore, the elimination of the hydrogen recombiners and relaxation of the hydrogen monitor requirements, including removal of these requirements from TS, does not involve a significant increase in the probability or consequences of an accident previously evaluated.

*Criterion 2 – The Proposed Change Does Not Create the Possibility of a New or Different Kind of Accident From Any Previously Evaluated*

The elimination of the hydrogen recombiner requirements and relaxation of the hydrogen monitor requirements, including removal of these requirements from TS, will not result in any failure mode not previously analyzed. The hydrogen recombiner and hydrogen monitor equipment was intended to mitigate a design-basis hydrogen release. The hydrogen recombiner and hydrogen monitor equipment are not considered accident precursors, nor does their existence or elimination have any adverse impact on the pre-accident state of the reactor core or post accident confinement of radionuclides within the containment building.

Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

*Criterion 3 – The Proposed Change Does Not Involve a Significant Reduction in the Margin of Safety*

The elimination of the hydrogen recombiner requirements and relaxation of the hydrogen monitor requirements, including removal of these requirements from TS, in light of existing plant equipment, instrumentation, procedures, and programs that provide effective mitigation of and recovery from reactor accidents, results in a neutral impact to the margin of safety.

The installation of hydrogen recombiners and/or vent and purge systems required by 10 CFR 50.44(b)(3) was intended to address the limited quantity and rate of hydrogen generation that was postulated from a design-basis LOCA. The Commission has found that this hydrogen release is not risk-significant because the design-basis LOCA hydrogen release does not contribute to the conditional probability of a large release up to approximately 24 hours after the onset of core damage.

Category 3 hydrogen monitors are adequate to provide rapid assessment of current reactor core conditions and the direction of degradation while effectively

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responding to the event in order to mitigate the consequences of the accident. The intent of the requirements established as a result of the TMI, Unit 2 accident can be adequately met without reliance on safety-related hydrogen monitors.

Therefore, this change does not involve a significant reduction in the margin of safety. Removal of hydrogen monitoring from TS will not result in a significant reduction in their functionality, reliability, and availability.

Based upon the reasoning presented above and the previous discussion of the amendment request, the requested change does not involve a significant hazards consideration.

Therefore, the TSTF concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

PEC has reviewed the proposed no significant hazards consideration determination published on September 25, 2003, (68 FR 55416) as part of the CLIP. PEC has concluded that the proposed determination presented in the notice is applicable to HNP and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

## **8.0 ENVIRONMENTAL EVALUATION**

PEC has reviewed the environmental evaluation included in the Model SE published on September 25, 2003, (68 FR 55416), as part of the CLIP. PEC has concluded that the staff's findings presented in that evaluation are applicable to HNP and the evaluation is hereby incorporated by reference for this application.

## **9.0 PRECEDENT**

This application is being made in accordance with the NRC-approved TSTF. HNP is not proposing variations or deviations from the TS changes described in TSTF-447, Rev. 1, or the NRC staff's Model SE published on September 25, 2003, (68 FR 55416).

Letter from L. M. Regner (NRC) to T. D. Walt (Carolina Power & Light Company), "Issuance of Amendment to Adopt Technical Specifications Task Force (TSTF) Standard TS Change Traveler, TSTF-447, Using the Consolidated Line Item Improvement Process (TAC NO. MD4250)," and associated Safety Evaluation dated July 16, 2007.

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**10.0 REFERENCES**

Federal Register Notice: Notice of Availability of Model Application Concerning Technical Specification Improvement To Eliminate Hydrogen Recombiner Requirement, and Relax the Hydrogen and Oxygen Monitor Requirements for Light Water Reactors Using the Consolidated Line Item Improvement Process, published September 25, 2003, (68 FR 55416).

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TECHNICAL SPECIFICATION PAGE MARKUPS  
(2 Pages)

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

*Delete*

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.
- b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of an ANALOG CHANNEL OPERATIONAL TEST at least once per 92 days, and at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gas containing:

- a. Two volume percent hydrogen, balance nitrogen, and
- b. Six volume percent hydrogen, balance nitrogen.

*Delete*

CONTAINMENT SYSTEMS

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

3.6.4.2 Two independent Hydrogen Recombiner Systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one Hydrogen Recombiner System inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE:

- a. At least once per 18 months by verifying, during a Hydrogen Recombiner System functional test, that the minimum heater sheath temperature increases to greater than or equal to 700°F within 90 minutes. Upon reaching 700°F, increase the power setting to maximum power for 2 minutes and verify that the power meter reads greater than or equal to 60 kW, and
- b. At least once per 18 months by:
  1. Performing a CHANNEL CALIBRATION of all recombinder instrumentation and control circuits.
  2. Verifying through a visual examination that there is no evidence of abnormal conditions within the recombinder enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and
  3. Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

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Delete

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REVISED TS PAGES  
(2 Pages)

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

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3.6.4.1 Deleted.

CONTAINMENT SYSTEMS

ELECTRIC HYDROGEN RECOMBINERS

LIMITING CONDITION FOR OPERATION

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3.6.4.2 Deleted.

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PROPOSED TECHNICAL SPECIFICATION (TS) BASES CHANGES  
(FOR INFORMATION ONLY)  
(2 Pages)

## CONTAINMENT SYSTEMS

### BASES

The Containment Fan Coolers and the Containment Spray System are redundant to each other in providing post-accident cooling of the containment atmosphere.

As a result of this redundancy in cooling capability, the allowable out-of-service time requirements for the Containment Fan Coolers have been appropriately adjusted. However, the allowable out-of-service time requirements for the Containment Spray System have been maintained consistent with that assigned other inoperable ESF equipment since the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere.

#### 3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of General Design Criteria 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

Reopening of an inoperable containment isolation valve is allowed to permit surveillance testing to demonstrate its operability of the operability of other equipment per Specification 4.6.3.1, or to change to compliance with another action statement for the LCO. An example of choosing an alternate action statement would be installing a blind flange versus using the failed closed containment isolation valve to isolate the penetration. This action would facilitate repair of the failed isolation valve, then removing the blind flange and re-installing the repaired valve. This process is acceptable because it results in restoring the penetration to its design configuration sooner than waiting for a plant shutdown to complete the repairs.

#### 3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. Either recombiner unit is capable of controlling the expected hydrogen generation associated with: (1) zirconium-water reactions, (2) radiolytic decomposition of water, and (3) corrosion of metals within containment. This hydrogen control system is consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a LOCA," Rev. 2, November 1978.

#### 3/4.6.5 VACUUM RELIEF SYSTEM

The OPERABILITY of the primary containment to atmosphere vacuum relief valves ensures that the containment internal pressure does not become more negative than -1.93 psig. This condition is necessary to prevent exceeding the containment design limit for internal vacuum of -2 psig.

## CONTAINMENT SYSTEMS

### BASES

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The Containment Fan Coolers and the Containment Spray System are redundant to each other in providing post-accident cooling of the containment atmosphere.

As a result of this redundancy in cooling capability, the allowable out-of-service time requirements for the Containment Fan Coolers have been appropriately adjusted. However, the allowable out-of-service time requirements for the Containment Spray System have been maintained consistent with that assigned other inoperable ESF equipment since the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere.

#### 3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of General Design Criteria 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

Reopening of an inoperable containment isolation valve is allowed to permit surveillance testing to demonstrate its operability of the operability of other equipment per Specification 4.6.3.1, or to change to compliance with another action statement for the LCO. An example of choosing an alternate action statement would be installing a blind flange versus using the failed closed containment isolation valve to isolate the penetration. This action would facilitate repair of the failed isolation valve, then removing the blind flange and re-installing the repaired valve. This process is acceptable because it results in restoring the penetration to its design configuration sooner than waiting for a plant shutdown to complete the repairs.

#### 3/4.6.4 COMBUSTIBLE GAS CONTROL

Deleted.

#### 3/4.6.5 VACUUM RELIEF SYSTEM

The OPERABILITY of the primary containment to atmosphere vacuum relief valves ensures that the containment internal pressure does not become more negative than -1.93 psig. This condition is necessary to prevent exceeding the containment design limit for internal vacuum of -2 psig.

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The action in this document committed to by Harris Nuclear Plant (HNP) regarding the incorporation of TSTF-447, Rev 1, is identified in the following table. Statements in this submittal, with the exception of those in the table below, are provided for information purposes and are not considered commitments. Please direct any questions regarding this document or any associated regulatory commitments to the Supervisor, Licensing/Regulatory Affairs.

Item	Commitment	Completion Date
1	HNP has verified, and is making a regulatory commitment to maintain, a hydrogen monitoring system capable of diagnosing beyond design-basis accidents.	Prior to implementation of approved TS Amendment.