Nuclear Operating Company

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

February 14, 2002
NOC-AE-01001168
10CFR50.90
STI: 31339416

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Proposed Change to Radiation Monitoring Technical Specifications

STP Nuclear Operating Company (STPNOC) submits the attached proposed amendment to South Texas Project Operating Licenses NPF-76 and NPF-80. This license amendment request proposes revising various Technical Specifications governing radiation monitoring instrumentation to eliminate the associated shutdown action requirements and relax certain other restrictions.

STPNOC requests approval of the proposed amendment by January 31, 2003. STPNOC requests 60 days for implementation of the amendment after it is approved.

The STPNOC Plant Operations Review Committee and Nuclear Safety Review Board have reviewed and concurred with the proposed change to the Technical Specifications.

In accordance with 10 CFR 50.91(b), STPNOC is notifying the State of Texas of this request for license amendment by providing a copy of this letter and its attachments.

A001

If there are any questions regarding the proposed amendment, please contact Mr. A. W. Harrison (361) 972-7298 or me at (361) 972-8757.

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

Executed on 2/14/02.
date

J. J. Sheppard
Vice President
Engineering & Technical Services

awh/

Attachments:
1. Description of Changes and Safety Evaluation
2. Annotated Technical Specification Pages
3. Technical Specification Pages with Proposed Changes Incorporated

cc:

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

Mohan C. Thadani
Project Manager
U. S. Nuclear Regulatory Commission
1 White Flint North, Mail Stop O7-D1
11555 Rockville Place
Washington, DC 20555

Cornelius F. O'Keefe
c/o U. S. Nuclear Regulatory Commission
P. O. Box 910
Bay City, TX 77404-0910

A. H. Gutterman, Esquire
Morgan, Lewis
1111 Pennsylvania Avenue, N.W.
Washington, DC 20004

M. T. Hardt/W. C. Gunst
City Public Service
P. O. Box 1771
San Antonio, TX 78296

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

Jon C. Wood
Matthews & Branscomb
112 East Pecan, Suite 1100
San Antonio, Texas 78205-3692

Institute of Nuclear Power
Operations - Records Center
700 Galleria Parkway
Atlanta, GA 30339-5957

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

R. L. Balcom/D. G. Tees
Reliant Energy, Inc.
P. O. Box 1700
Houston, TX 77251

C. A. Johnson/A. C. Bakken, III
AEP - Central Power and Light Company
P. O. Box 289, Mail Code: N5012
Wadsworth, TX 77483

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

ATTACHMENT 1

DESCRIPTION OF CHANGES

AND

SAFETY EVALUATION

1.0 Introduction

The proposed amendment will revise various Technical Specifications to eliminate shutdown actions associated with radiation monitoring instrumentation. The proposed changes will enhance plant reliability by reducing its exposure to unnecessary shutdowns and increase operational flexibility. Inoperable radiation monitoring instrumentation has little or no direct effect on plant safety and generally there are effective compensatory actions that can be taken for inoperable radiation monitoring instrumentation.

The proposed changes to the STP Technical Specifications are based in part on the Westinghouse Standard Improved Technical Specifications (NUREG-1431). STP's plant-specific differences are described and justified below.

2.0 Description

Each of the proposed changes to the Technical Specifications is described in Table 1.

3.0 Background

STPNOC believes that the overall reliability of the plant can be enhanced by the elimination of unnecessarily restrictive TS requirements for radiation monitors. An overview of the basis for each of the proposed changes is provided in Table 1.

4.0 Technical Analysis

A technical review of each of the proposed changes described in Table 1 is provided below. The review identifies the affected instrumentation, describes its function, including relevant references to the STP UFSAR, and provides a technical justification for the proposed change.

STPNOC is not proposing the changes described in this application as risk-informed changes to be reviewed in conformance with the criteria of Regulatory Guides 1.174 and 1.177. Where risk information for initiating events is presented, it is clear that their likelihood is very small. The compensatory actions proposed are based largely on the requirements that have already been accepted in other industry applications based on NUREG-1431. In addition, the radiation monitors affected by the proposed changes are not modeled in the STP PRA so there is no detailed risk quantification. STPNOC applied deterministic and risk insights to rank the affected radiation monitors as either non-risk-significant or low safety-significant.

Corresponding Bases changes will be provided subsequent to NRC approval of the proposed changes.

Control Room Intake Air Radioactivity (Table 3.3-3 ACTION 28 for Functional Unit 10.d)

The STP design includes two redundant channels for the subject function. Descriptions of these monitors (RE/RT-8033, 8034) are found in Sections 7.3.2 and 11.5.2.3.4 of the STP UFSAR:

> 7.3.2 Control Room Envelope HVAC ESFAS
>
> The ESFAS for the Control Room Envelope HVAC System uses the control room/EAB ventilation radiation monitors to sense whether predetermined setpoints have been exceeded. If they are, or if the Westinghouse ESFAS has generated a safety injection signal, this ESFAS sends actuation signals to the appropriate control room envelope HVAC components. The ESFAS meets the requirements of GDC 13, 19, 20, 21 and 22.
>
> > 7.3.2.1 Description. The ESFAS for the Control Room Envelope HVAC System receives high radiation signals from the redundant control room/EAB ventilation radiation monitors and the safety injection signal from the Nuclear Steam Supply System (NSSS) ESFAS. Upon receipt of any of these signals, the control room makeup air is diverted through the makeup filters and then, along with a portion of the recirculation air, through cleanup filters. For a complete description of the Control Room Envelope HVAC System and its operation, refer to Section 9.4.1. Section 6.4 provides an analysis of Control Room Envelope habitability. Section 11.5 provides a description of the radiation monitors.
>
> 11.5.2.3.4 Control Room Electrical Auxiliary Building Ventilation Monitors:
>
> The CR/EAB ventilation monitors are Class 1E monitors that continuously assess the intake air to the CR for indication of abnormal airborne radioactivity concentration. Each monitor assembly is powered from a separate electrical power source. In the event of high radiation CR emergency ventilation operation is initiated (Section 7.3.2). Failure of a monitor is alarmed in the CR.

STPNOC proposes that the TS for these monitors be revised to change the time required to place the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup mode from 1 hour to 7 days should there be one less than the minimum required channels operable (i.e., 1 of 2 channels inoperable). This proposed extension in the time to place the system in recirculation and makeup is consistent with the requirements in NUREG-1431. This is technically acceptable since there is still an operable channel that will function to realign the control room envelope on a high radiation signal unless the failure mode is due to the output power supply. However, in that case, the operator can manually initiate the function. The 7 day allowed outage time

in the NUREG is based on the low probability of a Design Basis Accident (DBA) occurring during this time period, and ability of the remaining train to provide the required capability.

STPNOC also proposes to revise the time required to realign the Control Room Makeup and Cleanup Filtration System to the recirculation and makeup mode from 1 hour to 12 hours should there be two less than the minimum required channels operable (i.e., 2 of 2 channels inoperable). The worst case configuration is that all trains of Control Room HVAC (TS 3.7.7) would be considered inoperable. The current allowed outage time for that configuration is 12 hours. This proposed change would make the radiation monitoring allowed outage time consistent with the allowed outage time for the condition where all trains of Control Room HVAC are inoperable. STPNOC provided that justification in the applications that resulted in the issuance of Amendments 125/113 (Reference 3).

The proposed TS actions also recognize a fuel handling accident as a potential release initiator and require that movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool be suspended when the required action to realign the system cannot be accomplished in the allowed 12 hours.

Radiation Monitoring Instrumentation for Plant Operations (TS 3/4.3.3)

The specific features of this TS are discussed below. STPNOC proposes to delete this TS in its entirety as discussed below and in Table 1.

Containment Atmosphere Radioactivity - High (Table 3.3-6, Functional Unit 1.a)

This function is performed by RT-8011, which is comprised of three detectors, RE- 8011A (particulate), RE-8011B (iodine), & RE-8011C (noble gas). The instruments are described in the STP UFSAR Section 11.5.2.3.2 and Table 11.5-1. These instruments have no actuation function. Except for the iodine detector, RE-8011B, the instruments governed by this TS are the same instruments required by TS 3/4.4.6.1, and Functional Unit 1.b, discussed below. STPNOC proposes to delete the requirements of TS 3/4.3.3 and Table 3.3-6 that pertain to these instruments and address them in TS 3/4.4.6.1.

This will effectively eliminate the Technical Specification requirements for the iodine monitoring function, RE-8011B, which is acceptable because this instrument serves no actuation function and has no significant role in accident mitigation.

RCS Leakage Detection (Table 3.3-6 Functional Unit 1.b)

The detectors that perform this function are RE-8011A (particulate) and 8011C (noble gas). As discussed in Table 1, STPNOC proposes to simply relocate the requirements for these instruments to TS 3/4.4.6.1.

In addition, STPNOC proposes to delete the requirement to perform the monthly Digital Channel Operational Test (DCOT) surveillance on the radiation detection instrumentation associated with the RCS leakage detection system. Radiation monitors at STP are highly reliable digital processors with extensive self-diagnosis capabilities. Historical records for these monitors indicate that the monthly DCOT surveillance has not identified any unknown existing failures. Because of this, the monthly DCOT function can be extended to 18 months. STPNOC proposes to delete the DCOT requirement since the 18 month calibration requirement encompasses the DCOT requirements.

Accident Monitoring Instrumentation (Table 3.3-10)

Containment High Range Radiation Monitor (Functional Unit 17)

The function of the Containment High Range Radiation Monitor (RE/RT-8050, 8051) is to detect, monitor, indicate and alarm radiation level inside containment. These monitors are listed in UFSAR Table 7B3-1 as RG 1.97 Category A1 instruments. The instruments perform a post-accident monitoring function and have no actuation functions. The proposed required action is consistent with NUREG-1431 except for the time allowed for submitting the special report, and reflects the low probability of an accident requiring the monitors and the ability to establish a temporary alternative.

Steam Line Radiation Monitors (Functional Unit 16)

The steam line radiation monitors (RE/RT-8046, 8047, 8048, and 8049) are listed in UFSAR Table 7B.3 – 1 as RG 1.97 Category A1 instruments. The detectors detect, monitor, indicate and alarm radiation level for main steam lines. The steam generator blowdown radiation monitors described below are identified in UFSAR Table 11.5-2 as being functionally redundant to the steam line radiation monitors.

Steam Generator Blowdown Radiation Monitors (Functional Unit 22)

The steam generator blowdown radiation monitors (RE/RT-8022, 8023, 8024, and 8025) are listed in UFSAR Table 7B.3 – 1 as RG 1.97 Category A1 instruments. The instruments detect, monitor, indicate and alarm radiation level for steam generator blowdown lines. The steam line monitors described above are

identified in UFSAR Table 11.5-2 as being functionally redundant to the steam generator blowdown radiation monitors.

There is adequate redundancy of radiation monitoring functions on the secondary side of the plant. Requiring a shutdown for inoperable radiation monitoring instrumentation does not contribute to plant safety, and may have negative effect because of the transient cycle a shutdown causes. The proposed requirements are consistent with the requirements in NUREG-1431 for monitoring instrumentation for which an alternate means of monitoring is acceptable.

The required report for the subject inoperable instrumentation will outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the function to OPERABLE status. STPNOC proposes that the report be a 30 day report instead of the 14 days described in NUREG-1431. There is no safety significance associated with the time allocated to submit a report and 30 days is a more reasonable time to prepare, review, and submit the report.

5.0 Regulatory Safety Analysis

5.1 No Significant Hazards Determination

STPNOC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10CFR50.92, "Issuance of amendment," as discussed below.

1) Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The radiation monitors affected by the proposed amendment are not potential accident initiators. Adequate measures are available to compensate for radiation monitors that are out of service. The proposed amendment does not affect how the affected radiation monitors function or their role in the response of an operator to an accident or transient. The core damage frequency in the STP PRA is not impacted by the proposed changes. Therefore, STPNOC concludes that there is no significant increase in the probability or consequences of an accident previously evaluated.

2) Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The radiation monitors affected by the proposed amendment are not credited for the prevention of any accident not evaluated in the safety analysis. The proposed amendment involves no changes in the way the plant is operated or controlled. It involves no change in the design configuration of the plant. No new operating environments are created. Therefore, STPNOC concludes the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change has no significant effect on functions that are supported by the affected radiation monitors. There will be no significant effect on the availability and reliability of the affected radiation monitors. Adequate measures are available to compensate for radiation monitors that are out of service. Therefore, STPNOC concludes the proposed change does not involve a significant reduction in the margin of safety.

Conclusion

Based upon the analysis provided herein, the proposed amendments do not involve a significant hazards consideration.

5.2 Applicable Regulatory Requirements/Criteria

Control Room Envelope Isolation Actuation:

The control room envelope is assumed in the accident analyses to be actuated to the filtered makeup and recirculation mode in a DBA to maintain doses to the operators below the limits of GDC 19. The radiation monitor actuation of the control room HVAC is an ESFAS function and is subject to the requirements of GDC 2, 4, 20 through 24, and 10 CFR 50.55a(h)(2).

The proposed changes to the Technical Specifications would not change the function of the affected radiation monitors and there is no significant impact on compliance with the regulatory requirements.

RCS Leakage Detection Instrumentation:

GDC 30 of Appendix A to 10 CFR 50 requires means for detecting and, to the extent practical, identifying the location of the source of RCS leakage. Regulatory Guide 1.45 describes acceptable methods for selecting leakage detection systems.

STPNOC's proposed changes to the RCS leakage detection radiation monitoring instrumentation do not affect how the monitors perform their function.

Accident Monitoring Instrumentation:

Required accident monitoring instrumentation ensures that there is sufficient information available on selected unit parameters to monitor and to assess unit status and behavior following an accident. These essential instruments are identified in the STP UFSAR where it addresses the recommendations of Regulatory Guide 1.97 as required by Supplement 1 to NUREG-0737.

The instrument channels required to be OPERABLE by TS 3.3.3.6 include two classes of parameters identified during unit specific implementation of Regulatory Guide 1.97 as Type A and Category I variables.

Type A variables are included in this LCO because they provide the primary information required for the control room operator to take specific manually controlled actions for which no automatic control is provided, and that are required for safety systems to accomplish their safety functions for DBAs.

Category I variables are the key variables deemed risk significant because they are needed to:

- Determine whether other systems important to safety are performing their intended functions;

- Provide information to the operators that will enable them to determine the likelihood of a gross breach of the barriers to radioactivity release; and

- Provide information regarding the release of radioactive materials to allow for early indication of the need to initiate action necessary to protect the public, and to estimate the magnitude of any impending threat.

There is adequate redundancy of radiation monitoring functions on the secondary side of the plant. In addition, STPNOC applied deterministic and risk insights to rank the steam generator blowdown radiation monitors as non-risk-significant and the main steam line radiation monitors as low safety significant. The proposed changes to the Technical

Specifications would not change the function of the affected radiation monitors and there is no significant impact on compliance with the regulatory requirements.

6.0 Environmental Considerations

10 CFR 51.22(b) specifies the criteria for categorical exclusion from the requirements for a specific environmental assessment per 10 CFR 51.21. This amendment request meets the criteria specified in 10 CFR 51.22(c)(9). The specific criteria contained in this section are discussed below.

(i) the amendment involves no significant hazards consideration

As demonstrated in the No Significant Hazards Consideration Determination, the requested license amendment does not involve any 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

The requested license amendment involves no change to the facility and does not involve any change in the manner of operation of any plant systems involving the generation, collection or processing of radioactive materials or other types of effluents. Therefore, no increase in the amounts of effluents or new types of effluents would be created.

(iii) there is no significant increase in individual or cumulative occupational radiation exposure

The requested license amendment involves no change to the facility and will not increase the radiation dose resulting from the operation of any plant system. Furthermore, implementation of this proposed change will not involve work activities that could contribute to occupational radiation exposure. Therefore, there will be no increase in individual or cumulative occupational radiation exposure associated with this proposed change.

Based on the above it is concluded that there will be no impact on the environment resulting from this change. The change meets the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 51.21 relative to specific environmental assessment by the Commission.

7.0 References

1. NUREG-1431 "Standard Technical Specifications, Westinghouse Plants"
2. South Texas Project Updated Final Safety Analysis Report, Revision 8
3. Application for License Amendment dated September 28, 1998 as supplemented on April 22, 1999, April 27, 2000 and August 15, 2000 (NOC-AE-000305, NOC-AE-000513, NOC-AE-00000822, NOC-AE-00000902)

Table 1

Page	Affected Section	Description of Change	Reason for Change
3/4 3-28	Table 3.3-3, ACTION STATEMENTS, ACTION 28 for Functional Unit 10.d	ACTION 28 applies to Control Room Intake Air Radioactivity-High. With less than the minimum channels operable, the ACTION currently requires initiation of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode within 1 hour. The proposed change would split ACTION 28 into ACTION 28.a. 28.b., 28.c., and 28.d. ACTION 28.a. would apply when the number of operable channels is one less than the minimum channels operable requirement and would extend the time allowed to place the system into the recirculation and filtration mode to 7 days. ACTION 28.b. would apply when the number of operable channels is two less than the minimum channels operable requirement and would allow 12 hours to place the system in the recirculation and filtration mode. ACTION 28.c. would provide a required action and time to shutdown to MODE 5 and to suspend movement of irradiated fuel assemblies and crane operation with loads over the spent fuel pool if ACTION 28.a. or 28.b. were not met in MODE 1, 2, 3, or 4. ACTION 28.d. would provide a required action to suspend CORE ALTERATIONS, crane operation with loads over the spent fuel pool, or movement of irradiated fuel assemblies if ACTION 28.a. or 28.b. were not met in MODE 5 or 6.	The proposed change allows for additional operational flexibility in situations where one or more channels of Control Room Ventilation radiation monitoring are inoperable. The seven days proposed in ACTION 28.a. is consistent with the provisions of NUREG-1431. The 12-hour AOT proposed in ACTION 28.b. is consistent with 12 hour AOT that is currently allowed in TS 3.7.7 for conditions where all trains of control room ventilation are inoperable. ACTION 28.c. and 28.d. are new requirements that clarify the required action if the recirculation and filtration mode cannot be implemented.
3/4 3-50, 3-51, 3-52, 3-53	TS 3/4.3.3, Table 3.3-6 Table 4.3-3	TS 3/4.3.3 defines the requirements for radiation monitoring instrumentation for plant operations and applies to the Containment Atmosphere Radioactivity-High and RCS Leakage Detection instrumentation. The current TS action for the Containment Radioactivity-High function allows continued operation for up to 30 days provided grab samples are obtained and analyzed. The required action after 30 days is not specified. Table 4.3-3 specifies the surveillance requirements for the instrumentation. STPNOC proposes to delete TS 3/4.3.3, Table 3.3-6, and Table 4.3-3. The Containment Atmosphere Radioactivity-High instrumentation would be deleted from the TS, and the requirements for the RCS Leakage Detection instrumentation would be relocated to TS 3/4.4.6.1, as discussed below. In addition, the monthly DCOT for the gaseous and particulate monitoring systems would be eliminated.	The proposed change eliminates an implied, if not explicit, shutdown action for the Containment Atmosphere Radioactivity-High instrumentation. There is no justification for TS action for this instrumentation since it has no actuation function and there are no operator actions credited in the safety analyses that depend on this function. Because of the elimination of an unnecessary shutdown action, this is viewed as a reliability enhancement. The elimination of the DCOT surveillance requirement is a reduction of unnecessary burden and is justified by operational experience. This change is less restrictive than NUREG-1431, which requires a quarterly surveillance.

Page	Affected Section	Description of Change	Reason for Change
3/4 3-50, 3-51, 52, 53 3/4 4-19	TS 3/4.3.3, Table 3.3-6 Table 4.3-3 TS 3/4.4.6.1	TS 3/4.3.3 defines the requirements for radiation monitoring instrumentation for plant operations and applies to the RCS Leakage Detection instrumentation. The current TS for the RCS Leakage Detection instrumentation invokes the ACTION requirements for TS 3.4.6.1, RCS Leakage Detection Systems. Table 4.3-3 specifies the surveillance requirements for the instrumentation. As mentioned above, STPNOC proposes to delete TS 3/4.3.3, Table 3.3-6, and Table 4.3-3 and relocate the RCS Leakage Detection Instrumentation requirements to TS 3/4.4.6.1.	The relocation of the RCS Leakage Detection instrumentation requirements to TS 3/4.4.6.1 is an administrative change and is more convenient for the operators using the Technical Specifications.
3/4 3-69 3/4 3-71	Table 3.3-10	The current TS include shutdown actions for Containment-High Range Radiation Monitor (ACTION 39a. and 39b). STPNOC proposes to change ACTION 39a. (one less than the total number of channels requirements for the Containment- High Range instrument) to have a required action of a report to the Commission if the channel cannot be restored in 30 days. ACTION 39b. (number of channels less than the minimum channels operable requirement) would be changed to require a report to the Commission if at least one inoperable channel cannot be restored to operable status within 7 days.	The proposed changes enhance plant reliability by removing an unnecessary shutdown action. The proposed changes are consistent with the requirements of NUREG-1431.
3/4 3-69 3/4 3-71	Table 3.3-10	The current TS include shutdown actions for Steam Line Radiation Monitors and Steam Generator Blowdown Radiation Monitors (ACTION 40). STPNOC proposes to revise ACTION 40 to include ACTION 40a. and 40b. ACTION 40a. would apply when the number for operable channels is less than the minimum channels operable requirement and when a diverse channel is functional. The action would require a report to the Commission if at least one inoperable channel could not be restored in 30 days. ACTION 40b. would apply when the number of operable channels is less than the minimum channels operable requirement and the diverse channel is not functional. In this case, the action would be to restore at least one inoperable channel to operable status within 7 days or prepare a report to the Commission.	The elimination of the shutdown actions associated with these radiation monitoring instruments is considered to increase plant reliability. There is adequate redundancy of radiation monitoring functions on the secondary side of the plant. Requiring a shutdown for inoperable radiation monitoring instrumentation does not contribute to plant safety, and may have negative effect because of the transient cycle it causes. The proposed requirements are consistent with the requirements in NUREG-1431 for monitoring instrumentation for which an alternate means of monitoring is acceptable.

ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATION CHANGES

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

NO CHANGES ON THIS PAGE.
INCLUDED FOR COMPLETENESS.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
10. Control Room Ventilation					
a. Manual Initiation	3 (1/train)	2 (1/train)	3 (1/train)	All	27
b. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
c. Automatic Actuation Logic and Actuation Relays	3	2	3	All	27
d. Control Room Intake Air Radioactivity - High	2	1	2	All	28
e. Loss of Power	See Item 8. above for all Loss of Power initiating functions and requirements.				
11. FHB HVAC					
a. Manual Initiation	3 (1/train)	2 (1/train)	3 (1/train)	1, 2, 3, 4 or with irradiated fuel in spent pool	29, 30
b. Automatic Actuation Logic and Actuation Relays	3	2	3	1, 2, 3, 4 or with irradiated fuel in spent pool	29, 30
c. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
d. Spent Fuel Pool Exhaust Radioactivity - High	2	1	2	With irradiated fuel in spent fuel pool	30

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 26- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feedwater Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 28- a. With the number of OPERABLE channels **one** less than the Minimum Channels OPERABLE requirement, within ~~1 hour~~ **7 days** initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

b. **With the number of OPERABLE channels two less than the Minimum Channels OPERABLE requirement, within 12 hours initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.**

c. **With required ACTION 28a. or 28b. not met in MODE 1, 2, 3, or 4, suspend movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, AND be in MODE 3 in 6 hours and in MODE 5 in the following 30 hours**

d. **With required ACTION 28a. or 28b. not met in MODE 5 or 6, suspend CORE ALTERATIONS, movement of irradiated fuel assemblies, and crane operations with loads over the spent fuel pool.**

ACTION 29- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.8.

ACTION 30- With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

INSTRUMENTATION

3/4.3.3 ~~MONITORING INSTRUMENTATION~~ **NOT USED**

~~RADIATION MONITORING FOR PLANT OPERATIONS~~

~~LIMITING CONDITION FOR OPERATION~~

~~3.3.3.1 The radiation monitoring instrumentation channels for plant operations shown in Table 3.3-6 shall be OPERABLE with their Alarm/Trip Setpoints within the specified limits.~~

~~APPLICABILITY: As shown in Table 3.3-6.~~

~~ACTION:~~

~~a. With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in Table 3.3-6, adjust the Setpoint to within the limit within 4 hours or declare the channel inoperable.~~

~~b. With one or more radiation monitoring channels for plant operations inoperable, take the ACTION shown in Table 3.3-6.~~

~~c. The provisions of Specification 3.0.3 are not applicable.~~

~~SURVEILLANCE REQUIREMENTS~~

~~4.3.3.1 Each radiation monitoring instrumentation channel for plant operations shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and DIGITAL CHANNEL OPERATIONAL TEST for the MODES and at the frequencies shown in Table 4.3-3.~~

TABLE 3.3-6 **NOT USED**

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

FUNCTIONAL UNIT	CHANNELS TO TRIP/ ALARM	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Containment					
a. Containment Atmosphere Radioactivity - High	N.A	3	All	N.A.	31
b. RCS Leakage Detection					
1. Particulate Radioactivity	N.A.	1	1, 2, 3, 4	N.A.	34
2. Gaseous Radioactivity	N.A.	1	1, 2, 3, 4	N.A.	34

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TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 31 - With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours. Grab samples are not required to be obtained for the duration of containment pressurization for an Integrated Leak Rate Test (ILRT) provided that a grab sample is obtained and analyzed at the start of depressurization of containment following the ILRT.

ACTION 32 - (Not Used)

ACTION 33 - (Not Used)

ACTION 34 - Must satisfy the ACTION requirement for Specification 3.4.6.1.

TABLE 4.3-3 **NOT USED**

RADIATION MONITORING INSTRUMENTATION FOR PLANT
OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Containment				
a. Containment Atmosphere Radioactivity - High	S	R	M	All
b. RCS Leakage Detection				
1) Particulate Radioactivity	S	R	M	1, 2, 3, 4
2) Gaseous Radioactivity	S	R	M	1, 2, 3, 4

NO CHANGES ON THIS PAGE.
INCLUDED FOR COMPLETENESS.

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
13. Containment Water Level (Narrow Range)	2	1	36
14. Containment Water Level (Wide Range)	3	1	37
15. Core Exit Thermocouples	**2	**1	42
16. Steam Line Radiation Monitor	1/steam line	1/steam line	40
17. Containment - High Range Radiation Monitor	2	1	39
18. Reactor Vessel Water Level (RVWL)	2*	1*	41
19. Neutron Flux (Extended Range)	2	1	36
20. Containment Hydrogen Concentration	2	1	36
21. Containment Pressure (Extended Range)	2	1	36
22. Steam Generator Blowdown Radiation Monitor	1/blowdown line	1/blowdown line	40
23. Neutron Flux - Startup Rate (Extended Range)	2	1	36

*A channel is eight sensors in a probe. A channel is OPERABLE if four or more sensors, one or more in the upper section section and three or more in the lower section, are OPERABLE.
** A channel is OPERABLE if at least two core exit thermocouples per core quadrant are OPERABLE, and at least one quadrant has at least four OPERABLE thermocouples

TABLE 3.3-10 (Continued)
ACTION STATEMENTS (Continued)

ACTION 39 - a. With the number of OPERABLE channels one less than the Total Number of Channels requirements, restore one inoperable channel to OPERABLE status within ~~7~~ **30** days, or ~~be in at least HOT SHUTDOWN within the next 12 hours~~ **submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.**

b. With the number of OPERABLE channels less than the Minimum Channels Operable requirements, restore at least one inoperable channel to OPERABLE status within ~~72 hours~~ **7 days** or ~~be in at least HOT SHUTDOWN within the next 12 hours~~ **submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.**

ACTION 40 - **a.** With the number of OPERABLE channels less than the Minimum Channels Operable requirements **and with a functional diverse channel**, restore at least one inoperable channel to OPERABLE status within ~~72 hours~~ **30 days**, or ~~be in at least HOT SHUTDOWN within the next 12 hours~~ **submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.**

b. With the number of OPERABLE channels less than the Minimum Channels Operable requirements and with the diverse channel not functional, restore at least one inoperable channel to OPERABLE status within 7 days or submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status

ACTION 41 - a. With the number of OPERABLE channels one less than the Required Number of Channels, either restore the system to OPERABLE status within 7 days if repairs are feasible without shutting down or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE in Table 3.3-10, either restore the inoperable channel(s) to OPERABLE status within 48 hours if repairs are feasible without shutting down or:

1. Initiate an alternate method of monitoring the reactor vessel inventory;

2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status; and

3. Restore the system to OPERABLE status at the next scheduled refueling.

TABLE 3.3-10 (Continued)

ACTION STATEMENTS (Continued)

ACTION 42 -

a. With one required channel inoperable, restore the required channel to OPERABLE status within 30 days; otherwise, a report shall be prepared and submitted in accordance with Specification 6.9.2 within the next 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.

b. With two required channels inoperable, restore one required channel to OPERABLE status within 7 days; otherwise, be in HOT STANDBY within 6 hours, and in HOT SHUTDOWN in the next 6 hours.

ACTION 43 -

a. With the number of OPERABLE channels two less than the Total Number of Channels requirements, restore the inoperable channel to OPERABLE status within 31 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels three less than the Total Number of Channels requirement, restore at least one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

c. With the number of OPERABLE channels less than the Minimum Channels Operable requirement, restore at least one inoperable channel to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours

[No changed requirements – simply rolled ACTION 42 to the next page]

REACTOR COOLANT SYSTEM

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System Leakage Detection Instrumentation shall be OPERABLE:

a. One Containment Atmosphere Radioactivity Monitor (gaseous or particulate), and

b. The Containment Normal Sump Level and Flow Monitoring System.

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

ACTION:

a. With the required containment atmosphere radioactivity monitor inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:

1) Restore one containment atmosphere monitoring system to OPERABLE status within 30 days and,

2) Obtain and analyze a grab sample of the containment atmosphere for gaseous and particulate radioactivity at least once per 24 hours, or

3) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.

b. With the required containment normal sump level and flow monitoring system inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:

1) Restore the containment normal sump and flow monitoring system to OPERABLE status within 30 days and,

2) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.

c. With both a. and b. inoperable, enter 3.0.3.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated OPERABLE by:

~~a. Containment Atmosphere Gaseous and Particulate Monitoring Systems performance of CHANNEL CHECK, CHANNEL CALIBRATION, AND DIGITAL CHANNEL OPERATIONAL TEST at the frequencies specified in Table 4.3-3, and~~

a. Containment Atmosphere Gaseous and Particulate Monitoring Systems performance of the following:
1) CHANNEL CHECK at least once per 12 hours, and
2) CHANNEL CALIBRATION at least once per 18 months

b. Containment Normal Sump Level and Flow Monitoring System performance of CHANNEL CALIBRATION at least once per 18 months.

ATTACHMENT 3

TECHNICAL SPECIFICATION PAGE WITH PROPOSED CHANGES INCORPORATED

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 26- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feedwater Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 28- a) With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 7 days initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

b) With the number of OPERABLE Channels two less than the Minimum Channels OPERABLE requirement, within 12 hours initiate and maintain operation of the Control Room Makeup and Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

c) With required ACTION 28a. or 28b. not met in MODE 1, 2, 3, or 4, suspend movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, and be in MODE 3 in 6 hours and in MODE 5 in the following 30 hours.

d) With required ACTION 28a. or 28b. not met in MODE 5 or 6, suspend CORE ALTERATIONS, movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool.

ACTION 29- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.8.

ACTION 30- With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal absorbers.

3/4.3.3 (Not Used)

TABLE 3.3-6

(Not Used)

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TABLE 4.3-3 NOT USED

TABLE 3.3-10 (Continued)

ACTION STATEMENTS (Continued)

ACTION 39 - a. With the number of OPERABLE channels one less than the Total Number of Channels requirements, restore one inoperable channel to OPERABLE status within 30 days, or submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the inoperable instrumentation channels to OPERABLE status.

b. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements, restore at least one inoperable channel to OPERABLE status within 7 days, or submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the inoperable instrumentation channels to OPERABLE status.

ACTION 40 - a. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements and with a functional diverse Channel, restore at least one inoperable channel to OPERABLE status within 30 days, or submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the inoperable instrumentation channels to OPERABLE status.

b. With the number of Channels less than the Minimum Channels OPERABLE requirement, and with the diverse channel not functional, restore at least one inoperable Channel to operable status within 7 days or submit a report in accordance with Specification 6.9.2 within the next 30 days outlining the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the inoperable instrumentation channels to OPERABLE status.

ACTION 41 - a. With the number of OPERABLE channels one less than the Required Number of Channels, either restore the system to OPERABLE status within 7 days if repairs are feasible without shutting down or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

b. With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE in Table 3.3-10, either restore the inoperable channel(s) to OPERABLE status within 48 hours if repairs are feasible without shutting down or:

1. Initiate an alternate method of monitoring the reactor vessel inventory;

2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status; and

3. Restore the system to OPERABLE status at the next scheduled refueling.

TABLE 3.3-10 (Continued)

ACTION STATEMENTS (Continued)

ACTION 42 -

a. With one required channel inoperable, restore the required channel to OPERABLE status within 30 days; otherwise, a report shall be prepared and submitted in accordance with Specification 6.9.2 within the next 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.

b. With two required channels inoperable, restore one required channel to OPERABLE status within 7 days; otherwise, be in HOT STANDBY within 6 hours, and in HOT SHUTDOWN in the next 6 hours.

ACTION 43 -

a. With the number of OPERABLE channels two less than the Total Number of Channels requirements, restore the inoperable channel to OPERABLE status within 31 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels three less than the Total Number of Channels requirement, restore at least one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

c. With the number of OPERABLE channels less than the Minimum Channels Operable requirement, restore at least one inoperable channel to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours

REACTOR COOLANT SYSTEM

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System Leakage Detection Instrumentation shall be OPERABLE:

a. One Containment Atmosphere Radioactivity Monitor (gaseous or particulate), and

b. The Containment Normal Sump Level and Flow Monitoring System.

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

ACTION:

a. With the required containment atmosphere radioactivity monitor inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:

1) Restore one containment atmosphere monitoring system to OPERABLE status within 30 days and,

2) Obtain and analyze a grab sample of the containment atmosphere for gaseous and particulate radioactivity at least once per 24 hours, or

3) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.

b. With the required containment normal sump level and flow monitoring system inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:

1) Restore the containment normal sump and flow monitoring system to OPERABLE status within 30 days and,

2) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.

c. With both a. and b. inoperable, enter 3.0.3.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated OPERABLE by:

a. Containment Atmosphere Gaseous and Particulate Monitoring Systems performance of the following:
1) CHANNEL CHECK at least once per 12 hours, and
2) CHANNEL CALIBRATION at least once per 18 months

b. Containment Normal Sump Level and Flow Monitoring System performance of CHANNEL CALIBRATION at least once per 18 months.