



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

March 4, 2002

TVA-SQN-TS-01-03

10 CFR 50.90

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

Gentlemen:

In the Matter of ) Docket Nos. 50-327  
Tennessee Valley Authority ) 50-328

**SEQUOYAH NUCLEAR PLANT (SQN) - TECHNICAL SPECIFICATION (TS)  
CHANGE NO. 01-03, INCORPORATION OF GENERIC TS SECTION 6.0  
ISSUES AS CONTAINED IN TECHNICAL SPECIFICATION TASK FORCE  
(TSTF) 258, REVISION 4; 299; 308, REVISION 1; 10 CFR 50.59;  
10 CFR 50.65; AND 50 CFR 50.71(e)**

Pursuant to 10 CFR 50.90, Tennessee Valley Authority hereby requests the following amendment to the SQN Licenses DPR-77 and -79 to change the TSs for Units 1 and 2.

TVA proposes to delete one definition and modify several subsections contained in TS Section 6.0, Administrative Controls. These proposed changes have been prepared based on existing NRC guidance. The changes are being proposed in the following areas:

- Definition 1.17 - "Member(s) of the Public." (NUREG-1431, Revision 2)
- TS 6.2.2.g, Overtime. (TSTF-258, Revision 4)
- TS 6.3, Facility Staff Qualifications. (TSTF-258, Revision 4)
- TS 6.8.4.a.ii, Primary Coolant Sources Outside Containment. (TSTF-299)
- TS 6.8.4.f, Radioactive Effluent Controls Program. (TSTF-258, Revision 4 and TSTF-308, Revision 1)

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- TS 6.8.4.i, Deletion of the "Configuration Risk Management Program." (10 CFR 50.65)
- The second paragraph in TS 6.9.1.5 associated with specific activity limits. (NUREG-1431, Revision 2)
- TS 6.9.1.14, Monthly Reactor Operating Report contents revision. (TSTF-258, Revision 4)
- TS 6.12, High Radiation Areas revision. (TSTF-258, Revision 4)
- TS 6.15, Deletion of Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid). (NUREG-1431, Revision 2)

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change is exempt from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The SQN Plant Operations Review Committee and the SQN Nuclear Safety Review Board have reviewed this proposed change and determined that operation of SQN Units 1 and 2, in accordance with the proposed change, will not endanger the health and safety of the public.

Enclosure 1 to this letter provides the description and evaluation of the proposed change. This includes TVA's determination that the proposed change does not involve a significant hazards consideration, and is exempt from environmental review. Enclosure 2 contains marked up copies of the appropriate TS pages from Units 1 and 2 to show the proposed change. Enclosure 3 contains the revised pages from the Unit 1 and 2 TS. Enclosure 4 contains the revised TS Bases changes for Units 1 and 2.

TVA requests that the revised TS be made effective within 45 days of NRC approval. There are no commitments contained within this letter.

In accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter to the Tennessee State Department of Public

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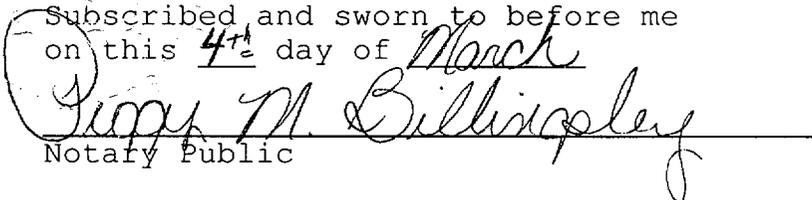
Health. This letter is being sent in accordance with NRC RIS 2001-05. If you have any questions about this change, please telephone me at (423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pedro Salas', is written over a circular stamp. The signature is bold and somewhat stylized.

Pedro Salas  
Licensing and Industry Affairs Manager

Subscribed and sworn to before me  
on this 4<sup>th</sup> day of March

A handwritten signature in black ink, appearing to read 'Gump M. Billingsley', is written over a horizontal line. The signature is cursive and spans across the line.  
Notary Public

My Commission Expires October 9, 2002

Enclosures:

1. TVA's Evaluation
2. Markup of Technical Specification Changes
3. Retyped Technical Specification pages
4. Changes to Technical Specification Bases pages

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT (SQN)  
UNITS 1 AND 2  
DOCKET NOS. 327 AND 328

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-03

TVA'S EVALUATION

Subject: SEQUOYAH NUCLEAR PLANT (SQN) - DOCKET NOS. 50-327,  
50-328 - TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-03,  
INCORPORATION OF GENERIC TS SECTION 6.0 ISSUES AS CONTAINED IN  
TECHNICAL SPECIFICATION TASK FORCE (TSTF) 258, REVISION 4; 299;  
308, REVISION 1; 10 CFR 50.59; 10 CFR 50.65; AND 50 CFR 50.71(e)

- 1.0 DESCRIPTION
- 2.0 PROPOSED CHANGE
- 3.0 BACKGROUND
- 4.0 TECHNICAL ANALYSIS
- 5.0 REGULATORY SAFETY ANALYSIS
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- 7.0 REFERENCES

## 1.0 DESCRIPTION

This letter is a request to amend SQN Operating License(s) DPR-77 and -79 to change the TSS for Unit 1 and Unit 2.

The proposed change to the TS will include the deletion of the definition 1.17 - "MEMBER(S) OF THE PUBLIC" and revise the following sections in Section 6.0; 6.2.2.g, overtime; 6.3.1 facility qualifications; 6.8.4.f, Radioactive Effluent Controls Program; 6.9.1.10, Monthly Reactor Operating Report; and 6.12, High Radiation Areas based on NRC approved Technical Specification Task Force (TSTF) 258, Revision 4 (with minor changes). Additionally, a change to TS 6.8.4.a.ii is proposed to allow for the 25 percent frequency permitted by Surveillance Requirement 4.0.2 that is applicable to Section 5.0 limiting conditions of operation based on NRC approved TSTF-299. Delete TS 6.8.4.i, "Configuration Risk Management Program," based on implementation of the Maintenance Rule and TS 6.8.4.f.5, "Radioactive Effluent Controls Program," based on TSTF 308, Revision 1. TS 6.8.4.a is revised to replace the word "reduce" with "minimize" and TS 6.15, "Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid)," is deleted based on the recently issued NUREG-1431, Revision 2. Finally, the second paragraph in TS 6.9.1.5 that describes the report requirements when the specific activity exceeds TS limits is deleted.

## 2.0 PROPOSED CHANGE

TVA proposes to delete one definition and modify several subsections contained in TS Section 6.0, Administrative Controls. Additionally, one section to the Bases will be revised based on a TS Section 6.0 revision.

The specific changes are as follows:

1. Definition 1.17, "MEMBERS OF THE PUBLIC," text is deleted and replaced with the word "DELETED" both in the Index and the text describing the definition. Additionally, the phrase "MEMBERS OF THE PUBLIC" contained in TSs 6.8.4.f, 6.8.4.f.4, 6.8.4.f.9, and 6.8.4.f.10 is changed to lower case script.
2. TS 6.2.2.g currently states that procedures shall be developed to limit working hours of the staff who perform safety-related functions. It details the combination of hours that may be worked by an individual. Additionally, it discusses who may authorize deviation from these rules. This section is being revised to read: "Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety-related

functions (e.g., senior reactor operators [SROs], reactor operators [ROs], health physicists, assistant unit operators [AUCOs], and key maintenance personnel).

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or the Plant Manager's designee, in accordance with approved administrative procedures and documentation of the basis for granting the deviation. Routine deviation from the working hour guidelines shall not be authorized.

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned."

3. The following section will be added to TS 6.3, Facility Staff Qualifications: "6.3.2 For the purpose of 10 CFR 55.4, a licensed senior reactor operator and a licensed reactor operator are those individuals who, in addition to meeting the requirements of TS 6.3.1, perform the functions described in 10 CFR 50.4(m)."
4. The word "reduce" in TS 6.8.4.a is replaced with the word "minimize."
5. TS 6.8.4.a.ii currently states: "Integrated leak test requirements for each system at refueling cycle intervals or less." It is being revised to state: "Integrated leak test requirements for each system at least once per 18 months." Additionally, "The provisions of SR 4.0.2 are applicable." is added to the end of TS 6.8.4.
6. TS 6.8.4.f.2 currently states: "stated in 10 CFR 20.1001 - 20.2401, Appendix B, Table 2, Column 2," and is being revised to read: "values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402."
7. TS 6.8.4.f.5 is revised to read: "Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days."

8. TS 6.8.4.f.7 present phrase "SHALL BE LIMITED to the following:" is revised to read: "shall be in accordance with the following:".
9. TS 6.8.4.f.7.1 - The word "total" is being replaced with the word "whole."
10. TS 6.8.4.f.10 - The phrase ", beyond the site boundary," is to be added after the phrase "members of the public."
11. TS 6.8.4.f - "The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency." is added to the end of the sentence.
12. TS 6.8.4.i, "Configuration Risk Management Program," text is deleted and the word "DELETED" added.
13. TS 6.9.1.5 is to have the second paragraph that pertains to the report due when the primary coolant specific activity exceeds the TS limit is deleted.
14. TS 6.9.1.10 - The phrase "including documentation of all challenges to the PORVs or Safety Valves," is being deleted that pertains to Monthly Reactor Operating Reports.
15. TS 6.12, "High Radiation Area," is deleted and replaced with the following:

#### 6.12 High Radiation Area

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

##### 6.12.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
- b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP) or equivalent, associated radiation surveys, and other appropriate radiation protection equipment and measures.

- c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  - 1. A radiation monitoring device that continuously displays radiation dose rates in the area; or
  - 2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  - 3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or
  - 4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
    - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and

entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

6.12.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
  1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.
  2. Doors and gates shall remain locked except when needed for personnel or equipment access.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent, associated radiation surveys, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information

to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or

3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
  - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
  - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for Controlling personnel radiation exposure in the area, and with the means to communicate with and control every individual in the area.
4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.
- f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be

barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.

16. TS 6.15, Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid), is deleted.

In summary, the proposed change to the TS will include the deletion of the definition 1.17 - "MEMBER(S) OF THE PUBLIC" and revise the following sections in Section 6.0; 6.2.2.g pertaining to overtime, 6.3 that addresses the facility qualifications, "Radioactive Effluent Controls Program," 6.9.1.10, "Monthly Reactor Operating Report," and 6.12, "High Radiation Areas," based on NRC approved Technical Specification Task Force (TSTF) 258, Revision 4 (with minor changes). Additionally, a change to TS 6.8.4.a.ii is proposed to allow for the 25 percent frequency permitted by Surveillance Requirement 4.0.2 that is applicable to Section 5.0 limiting conditions of operation based on NRC approved TSTF-299. Delete TS 6.8.4.i, Configuration Risk Management Program based on implementation of the Maintenance Rule and TS 6.8.4.f.5, "Radioactive Effluent Controls Program," based on TSTF 308, Revision 1. TS 6.8.4.a is revised to replace the word "reduce" with "minimize" and TS 6.15, "Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous and Solid)," is deleted based on the recently issued NUREG-1431, Revision 2. Finally, the second paragraph in TS 6.9.1.5 that describes the report requirements when the specific activity exceeds TS limits is deleted.

As a result of the proposed change described in Item 11, TS 6.8.4.i, "Configuration Risk Management Program," a Bases change is required. The last sentence in the second paragraph of the Bases 3/4.8.1 and 3/4.8.2, A.C. Sources and Onsite Power Distribution Systems, "When applying Action b of LCO 3.8.1.1, the Configuration Risk Management Program described in Section 6.8.4.i is required to be implemented." is deleted.

### **3.0 BACKGROUND**

TVA is proposing several changes to Section 6.0, "Administrative Controls," of the SQN TS including the deletion of a definition and a Bases change. These changes are contained in either NRC approved TSTF 258, Revision 4 (with minor changes), or TSTF-299, or TSTF-308, Revision 1. Additionally, the deletion of the definition and Section 6.15, "Major Changes To Radioactive Waste Treatment Systems," is based on these items not being contained in Revision 2 of NUREG-1431. The basis for this change is TVA's support of the effort to implement the various approved changes to the Standard TSs to provide consistency from site to site. Note, TVA has implemented the remaining sections of TSTF-258,

Revision 4, by means of the previously submitted TS Change 99-20 on August 4, 2000.

#### 4.0 TECHNICAL ANALYSIS

The following is a list of the 16 proposed changes to SQN TSs. At the end of each change is a discussion providing the justification for that change.

1. Definition 1.17, "MEMBERS OF THE PUBLIC," is deleted. Based on the proposed revision to TS 6.8.4.f that no longer contain this definition, it may be deleted. Additionally, it is not contained in NUREG-1431, Revision 2; therefore, is being deleted in order to remain consistent with the latest revision to Standard TSs.
2. Specific working hour limits in existing TS Section 6.2.2.g are modified to reference administrative procedures as the means of controlling working hours. Titles within TS 6.2.2.g are also revised to match TSTF-258, Revision 4.

The inclusion of working hour limits are not required to be in the TSs by 10 CFR 50.36(c)(5). Therefore, it is acceptable that requirements for controlling working hours of reactor plant staff be described in site procedures. These administrative procedures require a deliberate decision-making process to minimize the potential for impaired personnel performance. The proposed TS changes are also consistent with the recommendations in the April 9, 1997, letter from C. Grimes (NRC) to J. Davis (Nuclear Energy Institute [NEI]).

Additionally, the existing TS provision, "Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned" is being deleted. There is no guidance in Generic Letter 82-12, "Nuclear Power Plant Staff Working Hours," that discusses these additional controls. The requirement to have the Plant Manager (or his designee) review individual overtime on a monthly basis is unnecessary since sufficient administrative controls and policies already exist in site procedures. In lieu of this approval requirement, a new TS provision is being added to require a periodic independent review of overtime usage, which will ensure that the administrative procedures for overtime use are being effectively implemented.

The proposed TS change, which delegates the details of working hour controls to site processes, is considered an

administrative change which will continue to provide reasonable assurance that impaired performance caused by excessive working hours will not jeopardize safe plant operation.

3. TS 6.3, "Facility Staff Qualifications," has an additional section added. The new TS Section 6.3.2 incorporates the regulatory definitions for the SRO and RO positions for the purpose of applying 10 CFR 55.4, which provides the stipulation, "Actively performing the functions of an operator or senior operator means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's technical specifications, and that---". Adding Paragraph 6.3.2 ensures that there is no misunderstanding when complying with 10 CFR 55.4 requirements. Adding this paragraph is consistent with the recommendations of the April 9, 1997, letter from C. Grimes (NRC) to J. Davis (NEI).

The minimum staffing requirements stipulated in 10 CFR 50.54(m), for unit members actively performing the functions of an operator or senior operator, can be exceeded by stipulating the enhanced staffing requirements in paragraph 6.3.2. This means the site can take credit for more than the minimum number of watchstanders required by TSs provided that there are administrative controls which assure that functions and duties are divided and rotated in a manner which provides each watchstander meaningful and significant opportunity to maintain proficiency in the performance of the functions of an RO and/or SRO. This added TS provision is considered an administrative change which does not change any existing manning requirements and is consistent with TSTF-258, Revision 4.

4. The word "reduce" in TS 6.8.4.a is replaced with the word "minimize." This is an administrative change as reduce and minimize are very similar in definition; therefore, the requirements in this TS remain unchanged. Additionally, this is the wording of NUREG-1431, Revision 2. The change is made to be consistent with the NUREG.
5. TS 6.8.4.a.ii is revised to state: "Integrated leak test requirements for each system at least once per 18 months." Additionally, "The provisions of SR 4.0.2 are applicable." is added to the end of TS 6.8.4. The present form of the TS provides integrated leak test requirements for each system at refueling cycle intervals or less. The proposed change affects only the interval at which leak rate tests are performed. Under the proposed change, leak rate testing will be performed at 18 months intervals regardless of

actual refueling cycle lengths, and if an extension of that interval becomes necessary due to scheduling consideration, the provisions of SR 4.0.2 will provide necessary flexibility. The basis for SR 4.0.2 state that the 25 percent extension facilitates surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the surveillance. Therefore, the maximum extension that can be applied to those portions of systems outside of containment subject to being leak tested under TS Section 6.8.4.a.ii would be 25 percent of 18 months or 4.5 months.

Additionally, the scheduling flexibility provided by this change will not reduce the effectiveness of the leak test requirements and it will still meet the requirements of Item III.D.1.1, "Integrity of Systems Outside Containment Likely to Contain Radioactive Material for Pressurized-Water Reactors and Boiling-Water Reactors," in NUREG-0737, "Clarification of TMI Action Plan Requirements." This change is consistent with the recommended change in TSTF-299.

6. TS 6.8.4.f.2 currently states: "Limitations on the concentrations of radioactive material---." is revised to conform to the wording in Standard TS. A more specific reference to the pertinent section of 10 CFR 20 is substituted. This is an administrative change and no changes to TS limits are involved. Additionally, this change is consistent with TSTF-258, Revision 4.
7. TS 6.8.4.f.5 that pertains to cumulative and projected dose is deleted and replaced with the wording in Standard TSs which separates the projected dose from the cumulative dose program requirements. This change was a result of TSTF-308, Revision 1. Generic Letter 89-01 appears to have combined the original Surveillance Requirements (SRs) 4.11.1.2 and 4.11.1.3 for the cumulative and projected doses. In combining these requirements in Generic Letter 89-01, the new program element can be interpreted to require determining the projected dose contribution for the current calendar quarter and current calendar year every 31 days. Therefore, this change clarifies the wording in TS 6.8.4.f.5 to not require dose projections for a calendar quarter and a calendar year every 31 days. This separation is as it was prior to Generic Letter 89-01 and consistent with TSTF-308, Revision 1.
8. TS 6.8.4.f.7 present phrase "SHALL BE LIMITED to the following:" is revised to read "shall be in accordance with the following:". See Item 10 below.

9. The word "total" in TS 6.8.4.f.7)1 is replaced with the word "whole." See Item 10 below.
10. The phrase ", beyond the site boundary," is to be added after the phrase "members of the public" in TS 6.8.4.f.10. In TSs 6.8.4.f.7 and 6.8.4.f.10, TS wording regarding the site boundary and doses is modified for consistency with TSTF-258, Revision 4 wording. Also, in 6.8.4.f.7.1, "whole" body is substituted for "total" body which is more appropriate nomenclature. "Whole Body" is used in NUREG-1301, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors, Generic Letter 89-01, Supplement No. 1." The above changes are administrative and have no effect on application of the TS requirements.
11. The sentence "The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency." is added to the end of TS 6.8.4.f. A statement is being added at the end of TS 6.8.4.f to allow the application of SRs provisions 4.0.2 and 4.0.3 to the Radioactive Effluent Controls Program surveillance frequencies. This addition provides scheduling flexibility. SR 4.0.2 permits a 25 percent extension of the interval specified in the frequency and is generally applied to all SRs including Section 6.0 program based SRs. Allowing a 25 percent extension in the frequency of performing the Radioactive Effluent Controls Program surveillances will have no affect on outcome of the effluent dose calculations. SR 4.0.3 is added in association with SR 4.0.2 to maintain consistency of TS application. The proposed TS changes maintain the same overall level of effluent control program controls while providing operational flexibility. Additionally, this change is consistent with TSTF-258, Revision 4.
12. TS 6.8.4.i, "Configuration Risk Management Program," text is deleted and the word "DELETED" added. 10 CFR 50.65(a)(4) states: "Before performing maintenance activities (including but not limited surveillance, post-maintenance testing, and corrective and preventive maintenance), the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities. The scope of the assessment may be limited to structures, systems, and components that a risk-informed evaluation process has shown to be significant to public health and safety." Additionally, on July 19, 1999, NRC issued for implementation 10 CFR 50.65, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." The documentation is contained in Volume 64, No. 137, Section 38551 of the

*Federal Register*. In Section 5 of this issuance there is a discussion of the "Regulatory Controls Overlapping Technical Specifications." In this section, NRC specifically discusses the Configuration Risk Management Program (CRMP) and states "After revisions to the maintenance rule are completed, the NRC will expeditiously support license requests to remove the CRMP requirements from plant TS." Based on this recognized duplication, the requirements of TS 6.8.4.i may be deleted as redundant to 10 CFR 50.65.

13. The second paragraph in TS 6.9.1.5 is being deleted as it is now a duplicate effort with the implementation of the new NRC Performance Indicator (PI) data requirements. The PI that is associated with the Reactor Coolant System (RCS) Specific Activity is reported quarterly as a percentage of the TS limit. This is on a continuous basis and not on special occasions when the Specific activity exceeds the TS limits. Trend data is already available for review. Should the TS limit be exceeded for the 48 hours and if a plant shutdown is required, a detailed report will be provided in accordance with 10 CFR 50.73; therefore, this portion of TS 6.9.1.5 may be deleted as it duplicates present NRC requirements. This change is consistent with NUREG 1431, Revision 2.
14. The phrase "including documentation of all challenges to the PORVs or Safety Valves," is deleted from TS 6.9.1.10 that pertains to Monthly Reactor Operating Reports. The reporting of safety and relief valve failures and challenges was originally based on the guidance in NUREG-0694, TMI-Related Requirements for New Operating Licensees. The guidance of NUREG-0694 states: "Assure that any failure of a Power Operated Relief Valve (PORV) or safety valve to close will be reported to the NRC promptly. All challenges to the PORVs or safety valves should be documented in the annual report." This latter annual reporting requirement was carried forth in NUREG-1431, Revision 1, STS Section 5.6.4 but later deleted in Revision 2 based on TSTF-258, Revision 4.

NRC Generic Letter 97-02, "Revised Contents of the Monthly Operating Report," requests the submittal of less information in the Monthly Operating Report. The generic letter identifies what needs to be reported to support the NRC Performance Indicator Program and availability and capacity statistics. The generic letter does not specifically identify the need to report challenges to PORVs and safety valves. Malfunctions of PORVs and safety valves during reportable plant transients would be discussed in Licensee Event Reports and the special reporting of PORV and

safety valve challenges serves no explicit purpose. Therefore, it is acceptable to delete the requirement to provide a monthly report of all challenges to the PORVs and safety valves.

15. TS 6.12, "High Radiation Area," is deleted and replaced with the wording in Standard TS. Section 6.12 is being revised in accordance with 10 CFR 20.1601(c) and updates acceptable alternate controls to those provided in 10 CFR 20.1601 as provided in TSTF-258, Revision 4. Additionally, TVA is proposing two minor changes to the standard TS for this section. The first change is to replace the wording in TS 6.12.1.b and 6.12.2.b "that includes specification of radiation dose rates in the immediate work area(s)" with ", associated radiation survey,". The purpose of this change is to tailor the TS wording to be consistent with existing administrative controls that achieve the same objective. The SQN RWPs do not contain dose rates but the radiation surveys do. All RWPs have a radiation survey. This wording is essentially the same as the standard TS. The other change is a rewording of TS 6.12.2.a.2 to prevent any misinterpretation of when a door is locked. As the standard TS reads now, the door must be unlocked and locked as personnel enter and leave even though it is continuously guarded. For industrial safety reasons, the door should remain unlocked when personnel are working in the room in case of an accident. The continuous guard will prevent any unauthorized access to the room; therefore, the intent of the original TS remains. The SQN revision is based on NUREG-1431, Revision 2 that incorporates TSTF-258, Revision 4 with minor wording changes; therefore, this change is acceptable as it is more conservative than the existing TS 6.12.
16. TS 6.15, "Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid)," is deleted. This section is deleted based on the requirements contained in 10 CFR 50.59, Changes, Tests, and Experiments; and 10 CFR 50.71(e), Maintenance of Records, Making of Reports (Final Safety Analysis Report). The Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid) are described in Chapter 11 of the SQN Final Safety Analysis Report (FSAR) and any changes are required to be reviewed in accordance with 10 CFR 50.59 and appropriate plant procedures. The FSAR is then periodically updated and transmitted to NRC. Based on this, the deletion of this TS is considered an administrative change as the TS is redundant to existing CFR requirements. Additionally, this change is consistent with NUREG-1431, Revision 2.

## 5.0 REGULATORY SAFETY ANALYSIS

### 5.1 No Significant Hazards Consideration

There are 16 administrative type changes to the Sequoyah (SQN) Technical Specification (TS) contained in this request. These changes are proposed to implement NRC approved Technical Specification Task Force (TSTF) 258, Revision 4; TSTF-299, Revision 0; and TSTF 308, Revision 1, word changes and the deletion of a definition, based on NUREG-1431, Revision 2, Standard TS, and existing 10 CFR 50 requirements. Additionally, this change emulates NUREG-1431, Revision 2 Standard TS for Westinghouse Plants which NRC recently approved. TVA has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "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 proposed changes that involve the rewording or reformatting of the existing TSs do not involve technical changes. Therefore, this change is administrative and does not affect the initiators of analyzed events or assumed mitigation of accidents or transient events.

Three of the changes remove programs from TSs based on present regulatory controls. Specifically 10 CFR 50.59, 10 CFR 50.65, 10 CFR 50.71(e), 10 CFR 50.73, and Performance Indicator data. Based on the requirements residing in existing regulations it is acceptable to remove them from TS. Additionally, any changes to these programs will be evaluated based on regulatory requirements, no significant increase in the probability or consequences of an accident previously evaluated will be allowed.

Therefore, the proposed changes do not involve a 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 proposed changes do not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods

governing normal plant operation. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No. The proposed changes will not reduce the margin of safety because they have no effect on any safety analysis assumptions. Additionally, the proposed programs to be removed from TSs are contained in existing plant programs required by existing regulations. Since any future changes to these programs will be evaluated, no significant reduction in a margin of safety will be allowed.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, TVA concludes that the proposed amendment(s) present 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.

**5.2 Applicable Regulatory Requirements/Criteria**

As part of a continuing effort to maintain and improve the use of TSs, the Westinghouse Owners Group has initiated generic changes to NUREG-1431, Revision 1, Standard Technical Specifications Westinghouse Plants (STS). On April 30, 2001, Revision 2 was issued that incorporates TSTF-258, Revision 4; TSTF-299; TSTF-308, Revision 1; and additional changes that are not addressed in this change.

The proposed amendment will update the SQN TS and will be addressed by the referenced TSTF or applicable document.

***Proposed Changes to TS Section 6.0 per TSTF-258, Revision 4***

TSTF-258, Revision 4, is an approved TSTF (reference letter from William D. Beckner to James Davis dated June 29, 1999) and included in NUREG-1431, Revision 2. The changes in TSTF-258, Revision 4, are to revise TS Section 6.0, Administrative Controls in seven areas: (1) To delete specific TS staffing requirement provisions for Reactor Operators (ROs), (2) To eliminate TS details for working hour limits, (3) To clarify requirements for the Shift Technical Advisor (STA) position, (4) To add regulatory definitions for Senior Reactor Operators (SROs) and ROs,

(5) To revise the Radioactive Effluent Controls Program to be consistent with the intent of 10 CFR Part 20, (6) To delete periodic reporting requirements for mainsteam relief valve openings, and (7) To revise radiological area control requirements for radiation areas to be consistent with those specified in 10 CFR 20.1601 (c). Each item will be evaluated separately.

#### **1. Staffing Requirements for Reactor Operators.**

Description of TSTF Change and Justification: This portion of TSTF-258, Revision 4, deletes details of staffing requirements for ROs and SROs in TS 6.2.2.b. This section was implemented by SQN TS Change 99-20 on August 4, 2000.

#### **2. Specific Details for Working Hour Limits**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, specific working hour limits in TS 6.2.2.g are revised to reference administrative procedures as the means to control working hours. The justification given in the NRC-approved TSTF is that the proposed changes will provide reasonable assurance that impaired performance caused by excessive working hours will not jeopardize safe plant operation. Specific working hour limits are not otherwise required to be in the TS under 10 CFR 50.36(c)(5). Specific controls for working hours of reactor plant staff are described in procedures that require a deliberate decision making process to minimize the potential for impaired personnel performance, and that established procedure control processes will provide sufficient control for changes to that procedure. These changes are consistent with the recommendations in the April 9, 1997 letter from C. Grimes to J. Davis. Additionally, the statement "Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to ensure that excessive hours have not been assigned" is being deleted. There is no guidance in Generic Letter 82-12 that discusses these additional controls. The additional requirement to have the Plant Manager (or his designee) review individual overtime on a monthly basis is unnecessary since sufficient administrative controls and policies exist in site procedures. In lieu of this approval requirement, a new TS provision is being added to require a periodic independent review of overtime usage, which will ensure that the administrative procedures are being effectively implemented.

This is the same justification as that given for the NRC-approved TSTF. This change which delegates the details

of work hour controls to site processes is an administrative change that will not result in impaired performance due to excessive work hours, and will not jeopardize plant safety. These are the same changes to the TS that are given in the TSTF, and; therefore, acceptable.

### **3. Requirements for the STA Position**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, TS 6.2.2.h is revised to eliminate the title of "Shift Technical Advisor (STA)." This section was implemented by SQN TS Change 99-20 on August 4, 2000.

### **4. Definitions for SROs and ROs**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, a new TS 6.3.2 is added which incorporates the regulatory definitions for the SRO and RO positions for the purpose of explicitly applying 10 CFR 55.4. The justification given in the NRC approved TSTF is that 10 CFR 55.4 states: "Actively performing the functions of an operator or senior operator means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's technical specifications, and that ---". Adding Paragraph 6.3.2 ensures that there is no misunderstanding when complying with 10 CFR 55.4 requirements. Adding this paragraph is consistent with the recommendations in the April 9, 1997 letter from C. Grimes to J. Davis. The minimum staffing requirements stipulated in 10 CFR 50.54(m), for unit members actively performing the functions of an operator or senior operator, can be exceeded by stipulating the enhanced staffing requirements in paragraph 6.3.2. This means that the site can take credit for more than the minimum number of watchstanders required by TSs provided that there are administrative controls which assure that functions and duties are divided and rotated in a manner which provides each watchstander meaningful and significant opportunity to maintain proficiency in the performance of the functions of an RO and/or SRO.

This is the same justification as that given for the NRC-approved TSTF. Since this added TSs provision is considered administrative because none of the existing manning requirements are changed, and the changes to the TS are the same as in the TSTF; therefore, the change is acceptable.

## **5. Radioactive Effluent Controls Program**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, TS 6.8.4.f, "Radioactive Effluent Controls Program," is being modified to be consistent with 10 CFR Part 20; after issuance of Generic Letter 89-01, 10 CFR Part 20 was updated. The justification given in the NRC-approved TSTF is that this change is an administrative change. In TS 6.8.4.f.2, a more specific reference to the pertinent section of 10 CFR Part 20 is made. The limitation of "less than 10 times the concentration values. . ." provides reasonable assurance that the levels of radioactive materials in bodies of water in Unrestricted Areas will result in exposures within (1) the Section II design objectives of Appendix I to 10 CFR Part 50, and (2) restrictions authorized by 10 CFR 20.1301 (e). These changes are intended to eliminate possible confusion or improper implementation of the revised 10 CFR Part 20 requirements. The proposed changes maintain the same overall level of effluent control while retaining the operational flexibility that exists with current TSs under the previous 10 CFR Part 20. In addition, the provisions of SR 4.0.2 are applied to the Radioactive Effluent Controls Program surveillance frequencies to allow for scheduling flexibility. Surveillance Requirement 4.0.2 permits a 25 percent extension of the interval specified in the frequency (31 days). Allowing a 25 percent extension in the frequency of performing the monthly cumulative dose and projected dose calculation for the current quarter/year will have no effect on the outcome of the calculations. SR 4.0.3 is added in association with SR 4.0.2 to maintain consistency of TS application.

This is the same justification as that given for the NRC approved TSTF. The proposed TS changes maintain the same overall level of program controls while providing operational flexibility. The proposed changes are the same that are given in the TSTF; therefore, are acceptable.

## **6. Periodic Reporting Requirements**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, periodic reporting requirements for mainsteam relief valve openings are deleted. The justification given in the NRC approved TSTF is that the reporting of safety and relief valve failures and challenges are not specifically required or needed. The reporting of safety and relief valve failures and challenges were originally based on the guidance in NUREG-0694, "TMI-Related Requirements for New Operating Licensees." The guidance of

NUREG-0694 states: "Assure that any failure of a Power Operated Relief Valve (PORV) or safety valve to close will be reported to the NRC promptly. All challenges to the PORVs or safety valves should be documented in the annual report." NRC Generic Letter 97-02, "Revised Contents of the Monthly Operating Report," requests the submittal of less information in the Monthly Operating Report. The generic letter identifies what needs to be reported to support the NRC Performance Indicator Program, and availability and capacity statistics. The generic letter does not specifically identify the need to report challenges to the safety/relief valves. Malfunctions of safety/relief valves during reportable plant transients are discussed in Licensee Event Reports and the special reporting of safety/relief valve challenges serves no additional purpose. It is therefore acceptable to delete the requirement to provide an annual report of all challenges to the safety/relief valves.

This is the same justification as that given for the NRC approved TSTF. The proposed changes are the same that are given in the TSTF; therefore, are acceptable.

## **7. Radiological Control Requirements for Radiation Areas**

Description of Change and Justification: In this portion of TSTF-258, Revision 4, TS Section 6.12, "High Radiation Area," is revised in accordance with 10 CFR 20.1601 (c) and is updated with acceptable alternate controls to those provided in 10 CFR 20.1601. Additionally, TVA is proposing two minor changes to the standard TS for this section. The first change is to replace the wording in TS 6.12.1.b and 6.12.2.b "that includes specification of radiation dose rates in the immediate work area(s)" with ", associated radiation survey,". The purpose of this change is to tailor the TS wording to be consistent with existing administrative controls that achieve the same objective. The SQN RWPs do not contain dose rates but the radiation surveys do. All RWPs have a radiation survey. This wording is essentially the same as the standard TS. The other change is a rewording of TS 6.12.2.a.2 to prevent any misinterpretation of when a door is locked. As the standard TS reads now, the door must be unlocked and locked as personnel enter and leave even though it is continuously guarded. For industrial safety reasons, the door should remain unlocked when personnel are working in the room in case of an accident. The continuous guard will prevent any unauthorized access to the room; therefore, the intent of the original TS remains.

This is the same justification as that given for the NRC approved TSTF. The proposed changes are the same that are given in the TSTF (with minor changes); therefore, are acceptable.

***Proposed Changes to TS Section 6.0 per TSTF-299***

TSTF-299 is an approved TSTF and included in NREG-1431, Revision 2. The changes in TSTF-299 are to revise TS Section 6.0, "Administrative Controls," pertaining to TS 6.8.4.a.ii that discusses "Primary Coolant Sources Outside Containment." Its purpose is to clarify the intent of refueling cycle intervals with respect to the system integrated leak test requirements and to allow for the 25 percent extension.

Description of Change and Justification: TS 6.8.4.a.ii contains program requirements to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during and following a postulated design basis accident to levels as low as practicable. It also specifies that leak test requirements for each system listed under TS 6.8.4.a.ii be conducted at refueling cycle intervals or less.

The proposed change affects only the interval at which leak rate tests are performed. Under the proposed change, leak rate testing will be performed at 18 months intervals regardless of actual refueling cycle lengths, and if an extension of that interval becomes necessary due to scheduling consideration, the provisions of SR 4.0.2 will provide necessary flexibility. The bases for SR 4.0.2 state that the 25 percent extension facilitates surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the surveillance. Therefore, the maximum extension that can be applied to those portions of systems outside of containment subject to being leak tested under TS 6.8.4.a.ii would be 25 percent of 18 months or 4.5 months.

The basis for the acceptability is the scheduling flexibility provided by the proposed change will not reduce the effectiveness of the leak test requirements. This is the same justification as that given for the NRC approved TSTF. The proposed changes are the same that are given in the TSTF; therefore, are acceptable.

***Proposed Changes to TS Section 6.0 per TSTF-308, Revision 1***

TSTF-308, Revision 1 is an approved TSTF and included in NREG-1431, Revision 2. The changes in TSTF-308, Revision 1,

are to revise TS Section 6.0, "Administrative Controls," pertaining to TS 6.8.4.f.5 that discusses dose projections. This change revises the wording to describe the actual intent of the dose projections. The new proposed words are the same as the pre-Generic Letter 89-01 implementation.

Description of Change and Justification: TS 6.8.4.f.5 pertains to the frequency that the cumulative and projected dose are determined. Generic Letter 89-01 appears to have combined the original SRs 4.11.1.2 and 4.11.1.3 for the cumulative and projected doses. In combining these requirements in Generic Letter 89-01, the new program element can be interpreted to require determining the projected dose contribution for the current calendar quarter and current calendar year every 31 days. Therefore, this change clarifies the wording in TS 6.8.4.f.5 to not require dose projections for a calendar quarter and a calendar year every 31 days. This separation is as it was prior to Generic Letter 89-01.

This is the same justification as that given for the NRC approved TSTF. The proposed change is the same as that contained in the TSTF; therefore, is acceptable.

***Proposed Changes to Definitions and TS Section 6.0 per NUREG-1431, Revision 2***

Based on NUREG-1431, Revision 2, Definition 1.17, "Members of the Public," is deleted and the word "reduce" is replaced with "minimize."

Description of Change and Justification: Due to STS not containing the definition "Members of The Public" and this amendment revising TS 6.8.4.f that contains this definition, the definition is deleted in accordance with SQN's effort to align with STS. An additional change is made to replace the word "reduce" with "minimize" is further alignment with the STS wording. The difference in definition between these two words is minimal.

As these changes already have been incorporated into the STS, they are acceptable.

***Proposed Changes to TS Section 6.0 per 64 FR 38551, Issuance of Maintenance Rule***

Based on the issuing of 10 CFR 50.65, "The Maintenance Rule," the NRC Commission instructed the Staff to

expeditiously support the removal of the "Configuration Risk Management Program" (CRMP) from plant TS.

Description of Change and Justification: When NRC issued 10 CFR 50.65, "The Maintenance Rule," it overlapped the requirements of TS 6.8.4.i, "Configuration Risk Management Program;" therefore, the TS may be eliminated. This is an administrative change as SQN is eliminating duplicate requirements.

When the Maintenance Rule became effective, the NRC Commission approved the deletion of the CRMP from TS; therefore, this change is acceptable.

***Proposed Changes to TS Section 6.0 per 10 CFR 50.59 and 10 CFR 50.71 (e)***

TS 6.15, Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid), is deleted as the review and reporting requirements are contained in 10 CFR 50.59 and 10 CFR 50.71(e).

Description of Change and Justification: The deletion of TS 6.15, "Major Changes To Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid)," is considered appropriate as any changes in the systems will be addressed reviewed in accordance with 10 CFR 50.59. The Radioactive Waste Treatment Systems (Liquid, Gaseous, and Solid) are described in Chapter 11 of the SQN Final Safety Analysis Report (FSAR). Additionally, any changes in the systems will be reported in accordance with 10 CFR 50.71(e) as changes to the FSAR.

Deletion of TS 6.15 is considered administrative as it is redundant to 10 CFR 50 requirements, and; therefore, acceptable.

***Proposed Changes to TS Section 6.0 based on the new NRC Performance Indicators (PI) and 10 CFR 50.73***

The second paragraph of TS 6.9.1.5 discusses reporting requirements dealing with the reactor coolant system (RCS) specific activity exceeding the limits contained in TS 3.4.8.a. This parameter is now required to be reported monthly and may be trended as appropriate. Additionally, should the plant exceed the limits in TS 3.4.8.a, then TS 4.4.8.a and .b will require the plant to be in Mode 3 within 6 hours. At that time a Licensee Event Report would be required based on 10 CFR 50.73.

Deletion of TS 6.9.1.5 portion the applies to RCS specific activity is considered administrative as it is redundant to 10 CFR 50 requirements, and; therefore, acceptable.

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

## **6.0 ENVIRONMENTAL CONSIDERATION**

The proposed change does not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## 7.0 REFERENCES

1. NUREG-1431, Revision 2, Standard Technical Specification Westinghouse Plants
2. Technical Specification Task Force 258, Revision 4, Changes to Section 5.0, Administrative Controls
3. Technical Specification Task Force 299, Administrative Controls Program 5.5.2.b Test Interval and Exception
4. Technical Specification Task Force 308, Revision 1, Determination of Cumulative and Projected Dose Contributions in RECP
5. 10 CFR 50.59, Changes, Tests, and Experiments
6. 10 CFR 50.65, Requirements For Monitoring The Effectiveness Of Maintenance At Nuclear Power Plants
7. 10 CFR 50.71(e), Final Safety Analysis Report
8. 64 FR 38551, Issuing of Maintenance Rule
9. 10 CFR 0.73, Licensee Event Report System
10. NEI 99-02, Revision 2, Regulatory Assessment Performance Indicator Guideline

**ENCLOSURE 2**

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

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- b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
- c. Reactor coolant system leakage through a steam generator to the secondary system.

MEMBER(S) OF THE PUBLIC

1.17 ~~MEMBERS OF THE PUBLIC means an individual in a controlled or unrestricted area. However, an individual is not a member of the public during any period in which the individual receives an occupational dose.~~

Add "DELETED"

DELETE

OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.18 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.6 and 6.9.1.8.

OPERABLE - OPERABILITY

1.19 A system, subsystem, train, or component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

OPERATIONAL MODE - MODE

1.20 An OPERATIONAL MODE (i.e., MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

PHYSICS TESTS

1.21 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14.0 of the FSAR, 2) authorized under the provisions of 10 CFR 50.59, or 3) otherwise approved by the Commission.

ADMINISTRATIVE CONTROLS

- c. A Radiological Control technician# shall be onsite when fuel is in the reactor.
- d. DELETED (e.g., senior reactor operators (SROs), licensed reactor operator (ROs), health physicists, assistant unit operators (AUOs), and key maintenance personnel)
- e. DELETED
- f. The Operations Superintendent shall hold a ~~Senior Reactor Operator~~ **personnel** license.
- g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions (i.e., senior reactor operators, reactor operators, assistant unit operators, Radiological Control, and key maintenance personnel).

~~Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-, 10-, or 12-hour day, nominal 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:~~

1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time. **DELETE**
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

**Insert A**

the Plant Manager's

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or his designee, in accordance with approved administrative procedures, or by higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation.

**Insert B**

~~Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned.~~ Routine deviation from the above guidelines is not authorized.

- h. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

#The Radiological Control technician may be offsite for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

## ADMINISTRATIVE CONTROLS

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### 6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE) (DELETED)

### 6.2.4 SHIFT TECHNICAL ADVISOR (STA) (DELETED)

### 6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in Regulatory Guide 1.8, Revision 2 (April 1987) for all new personnel qualifying on positions identified in Regulatory Position C.1 after January 1, 1990. Personnel qualified on these positions prior to this date will still meet the requirements of Regulatory Guide 1.8, Revision 1-R (May 1977).

6.3.2 For the purpose of 10 CFR 55.4, a licensed senior reactor operator and a licensed reactor operator are those individuals who, in addition to meeting the requirements of TS 6.3.1, perform the functions described in 10 CFR 50.54(m).

ADD

## ADMINISTRATIVE CONTROLS

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- b. Refueling operations.
- c. Surveillance and test activities of safety-related equipment.
- d. DELETED
- e. DELETED
- f. Fire Protection Program implementation.
- g. DELETED
- h. Quality Assurance Program for effluent and environmental monitoring, using the guidance contained in Regulatory Guide 4.15, December 1977, or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.
- i. OFFSITE DOSE CALCULATION MANUAL implementation.

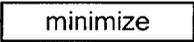
6.8.2 DELETED

6.8.3 DELETED

6.8.4 The following programs shall be established, implemented, and maintained.

a. Primary Coolant Sources Outside Containment

A program to ~~reduce~~ leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The



minimize

## ADMINISTRATIVE CONTROLS

systems include the safety injection system, residual heat removal system, chemical and volume control system, containment spray system, and RCS sampling system. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at ~~refueling cycle intervals or less.~~

least once per 18 months.

**ADD** "The provisions of SR 4.0.2 are applicable."

- b. In-Plant Radiation Monitoring (DELETED)
- c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- (i) Identification of a sampling schedule for the critical variables and control points for these variables,
- (ii) Identification of the procedures used to measure the values of the critical variables,
- (iii) Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage,
- (iv) Procedures for the recording and management of data,
- (v) Procedures defining corrective actions for off-control point chemistry conditions,
- (vi) Procedures identifying (a) the authority responsible for the interpretation of the data; and (b) the sequence and timing of administrative events required to initiate corrective action.

ADMINISTRATIVE CONTROLS

d. DELETED

e. Postaccident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for sampling and analysis,
- (iii) Provisions for maintenance of sampling and analysis equipment.

MAKE LOWER CASE

f. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and set-point determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentrations stated in 10 CFR 20.1001-20.2401, Appendix B, Table 2, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) ~~Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days.~~ DELETE

MEMBER OF THE PUBLIC

INSERT C

values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402,

ADMINISTRATIVE CONTROLS

- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,
  
- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY SHALL BE LIMITED to the following:
  - shall be in accordance with the following:
    - 1. For noble gases: Less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
    - 2. For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.
  
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
  
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and
  
- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

, beyond the site boundary,

shall be in accordance with the following:

whole

MAKE LOWER CASE.

MEMBER OF THE PUBLIC

ADD "The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency."

g. Radiological Environmental Monitoring Program (DELETED)

## ADMINISTRATIVE CONTROLS

### h. Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 12.0 psig.

The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the combined Type B and Type C tests, and  $\leq 0.75 L_a$  for Type A tests;
- b. Air lock testing acceptance criteria are:
  - 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
  - 2) For each door, leakage rate is  $\leq 0.01 L_a$  when pressurized to  $\geq 6$  psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

### i. Configuration Risk Management Program ADD "(DELETED)"

~~The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to Technical Specification structures, systems, or components for which a risk-informed allowed outage time has been granted. The program shall include the following elements:~~

- a. ~~Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.~~
- b. ~~Provisions for performing an assessment prior to entering the Limiting Condition for Operation (LCO) Action for preplanned activities.~~
- c. ~~Provisions for performing an assessment after entering the LCO Action for unplanned entry into the LCO Action.~~
- d. ~~Provisions for assessing the need for additional actions after the discovery of additional equipment out of service conditions while in the LCO Action.~~
- e. ~~Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.~~

DELETE

## ADMINISTRATIVE CONTROLS

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(describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

~~If the results of specific activity analysis in which the primary coolant exceeded the limits of specification 3.4.8.a, then the following information shall be included along with the results of specific activity analysis results in which the primary coolant exceeded the limits of the specifications: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while the limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.~~

### ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT<sup>1/</sup>

DELETE

6.9.1.6 The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

6.9.1.7 (Relocated to the ODCM.)

### ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT<sup>1/</sup>

6.9.1.8 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be (1) consistent with the objectives outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

6.9.1.9 (Relocated to the ODCM or PCP.)

<sup>1/</sup> A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

## ADMINISTRATIVE CONTROLS

### MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or Safety Valves, shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

DELETE

### CORE OPERATING LIMITS REPORT

6.9.1.14 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

1.  $f_1(\Delta I)$  limits for Overtemperature Delta T Trip Setpoints and  $f_2(\Delta I)$  limits for Overpower Delta T Trip Setpoints for Specification 2.2.1.
2. Moderator Temperature Coefficient BOL and EOL limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
3. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
4. Control Bank Insertion Limits for Specification 3/4.1.3.6,
5. AXIAL FLUX DIFFERENCE Limits for Specification 3/4.2.1,
6. Heat Flux Hot Channel Factor and  $K(z)$  for Specification 3/4.2.2, and
7. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3.

6.9.1.14.a The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by NRC in:

1. BAW-10180P-A, Rev. 1, "NEMO - NODAL EXPANSION METHOD OPTIMIZED", March 1993. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
2. BAW-10169P-A, "RSG PLANT SAFETY ANALYSIS - B&W SAFETY ANALYSIS METHODOLOGY FOR RECIRCULATING STEAM GENERATOR PLANTS", October 1989. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
3. BAW-10163P-A, Core Operating Limit Methodology for Westinghouse-Designed PWRs, June 1989. (FCF Proprietary)  
(Methodology for Specification 2.2.1, - Limiting Safety System Settings [ $f_1(\Delta I)$ ,  $f_2(\Delta I)$  limits], 3.1.3.5 - Shutdown Bank Insertion Limits, 3.1.3.6 - Control Bank Insertion Limits, 3/4.2.1 - Axial Flux Difference, 3/4.2.2 - Heat Flux Hot Channel Factor, 3/4.2.3 - Nuclear Enthalpy Rise Hot Channel Factor)
4. BAW-10168P-A, Rev. 2, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)
5. BAW-10168P-A, Rev 3, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)

April 21, 1997  
SEQUOYAH - UNIT 1

6-13

Amendment No. 52, 58, 72, 74, 117,  
152, 155, 156, 171, 216, 223

ADMINISTRATIVE CONTROLS

6.11 RADIATION PROTECTION PROGRAM (DELETED)

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit\* (RWP). Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

**DELETE**

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility RADCON/Chemistry Control Manager in the RWP.

6.12.2 The requirements of 6.12.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or the RADCON/Chemistry Control Manager.

**INSERT D**

**DELETE**

\*Radiological Control personnel or personnel escorted by Radiological Control personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

Add "DELETED"

6.15 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous and Solid)\*\*

6.15.1 Licensee initiated major changes to the radioactive waste systems (liquid, gaseous and solid):\*\*

1. Shall be reported to the Commission in the Annual Radioactive Effluent Release Report for the period in which the evaluation was reviewed in accordance with TVA-NQA-PLN89-A. The discussion of each change shall contain:
  - a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;
  - b. sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
  - c. a detailed description of the equipment, components and processes involved and the interfaces with other plant systems;
  - d. an evaluation for the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;
  - e. an evaluation of the change which shows the expected maximum exposures to individual in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;
  - f. a comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;
  - g. an estimate of the exposure to plant operating personnel as a result of the change; and
  - h. documentation of the fact that the change was reviewed and found acceptable in accordance with TVA-NQA-PLN89-A.
2. Shall become effective upon review and acceptance in accordance with TVA-NQA-PLN89-A.

DELETE

\*\*Submittal of information required by this section may be made as part of the annual FSAR update.

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DEFINITIONS

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IDENTIFIED LEAKAGE

1.16 IDENTIFIED LEAKAGE shall be:

- a. Leakage, such as that from pump seals or valve packing (except reactor coolant pump seal injection or leakoff) that is captured and conducted to collection systems or a sump or collecting tank, or
- b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
- c. Reactor coolant system leakage through a steam generator to the secondary system.

MEMBER(S) OF THE PUBLIC

Add "DELETED"

1.17 ~~MEMBERS OF THE PUBLIC means an individual in a controlled or unrestricted area. However, an individual is not a member of the public during any period in which the individual receives an occupational dose.~~

DELETE

OFFSITE DOSE CALCULATION MANUAL

1.18 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.6 and 6.9.1.8.

OPERABLE - OPERABILITY

1.19 A system, subsystem, train, or component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

ADMINISTRATIVE CONTROLS

c. A Radiological Control technician# shall be onsite when fuel is in the reactor.  
d. DELETED (e.g., senior reactor operators (SROs), licensed reactor operator (ROs), health physicists, assistant unit operators (AUOs), and key maintenance personnel)

e. DELETED

f. The Operations Superintendent shall hold a Senior Reactor Operator license.

personnel

g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions (i.e., senior reactor operators, reactor operators, assistant unit operators, Radiological Control, and key maintenance personnel).

INSERT A

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-, 10-, or 12-hour day, nominal 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time. DELETE
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

the Plant Manager's

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or his designee, in accordance with approved administrative procedures, or by higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation.

INSERT B

Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

h. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. shall not be working hour

# The Radiological Control technician may be offsite for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

ADMINISTRATIVE CONTROLS

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6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE) (DELETED)

6.2.4 SHIFT TECHNICAL ADVISOR (STA) (DELETED)

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in Regulatory Guide 1.8, Revision 2 (April 1987) for all new personnel qualifying on positions identified in Regulatory Position C.1 after January 1, 1990. Personnel qualified on these positions prior to this date will still meet the requirements of Regulatory Guide 1.8, Revision 1-R (May 1977)

6.3.2 For the purpose of 10 CFR 55.4, a licensed senior reactor operator and a licensed reactor operator are those individuals who, in addition to meeting the requirements of TS 6.3.1, perform the functions described in 10 CFR 50.54(m).

ADD

6.4 TRAINING

6.4.1 DELETED

6.5 REVIEW AND AUDIT

6.5.0 DELETED

6.5.1 PLANT OPERATIONS REVIEW COMMITTEE (PORC) (DELETED)

6.5.1A TECHNICAL REVIEW AND CONTROL (DELETED)

6.5.2 NUCLEAR SAFETY REVIEW BOARD (NSRB) (DELETED)

6.5.3 RADIOLOGICAL ASSESSMENT REVIEW COMMITTEE (RARC) (DELETED)

ADMINISTRATIVE CONTROLS

- h. Quality Assurance Program for effluent and environmental monitoring, using the guidance contained in Regulatory Guide 4.15, December 1977 or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.
- i. OFFSITE DOSE CALCULATION MANUAL implementation.

6.8.2 DELETED

6.8.3 DELETED

6.8.4 The following programs shall be established, implemented, and maintained.

a. Primary Coolant Sources Outside Containment

minimize

A program to ~~reduce~~ leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the safety injection system, residual heat removal system, chemical and volume control system, containment spray system, and RCS sampling system. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at ~~refueling cycle intervals or less.~~

b. In-Plant Radiation Monitoring (DELETED)

least once per 18 months

c. Secondary Water Chemistry

ADD "The provisions of SR 4.0.2 are applicable."

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- (i) Identification of a sampling schedule for the critical variables and control points for these variables,
- (ii) Identification of the procedures used to measure the values of the critical variables,
- (iii) Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage
- (iv) Procedures for the recording and management of data,
- (v) Procedures defining corrective actions for off-control point chemistry conditions,
- (vi) Procedures identifying (a) the authority responsible for the interpretation of the data; and (b) the sequence and timing of administrative events required to initiate corrective action.

d. Deleted

ADMINISTRATIVE CONTROLS

e. Postaccident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for sampling and analysis,
- (iii) Provisions for maintenance of sampling and analysis equipment.

MAKE LOWER CASE

f. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and set-point determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentrations stated in 10 CFR Part 20.1001 - 20.2402, Appendix B, Table 2, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents release from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,
- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases

INSERT C

values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402,

ADMINISTRATIVE CONTROLS

6.8.4 f. Radioactive Effluent Controls Program (Cont.)

of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY SHALL BE LIMITED to the following:

shall be in accordance with the following:

- 1. For noble gases: Less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
- 2. For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.

whole

8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,

9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and

, beyond the site boundary,

10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

Make lower case.

g. Radiological Environmental Monitoring Program (DELETED)

h. Containment Leakage Rate Testing Program

Add "The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency."

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P<sub>a</sub>, is 12.0 psig.

The maximum allowable containment leakage rate, L<sub>a</sub>, at P<sub>a</sub>, is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the combined Type B and Type C tests, and  $\leq 0.75 L_a$  for Type A tests;

## ADMINISTRATIVE CONTROLS

b. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
- 2) For each door, leakage rate is  $\leq 0.01 L_a$  when pressurized to  $\geq 6$  psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

i. Configuration Risk Management Program

ADD "(DELETED)"

~~The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to Technical Specification structures, systems, or components for which a risk-informed allowed outage time has been granted. The program shall include the following elements:~~

- ~~a. Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.~~
- ~~b. Provisions for performing an assessment prior to entering the Limiting Condition for Operation (LCO) Action for preplanned activities.~~
- ~~c. Provisions for performing an assessment after entering the LCO Action for unplanned entry into the LCO Action.~~
- ~~d. Provisions for assessing the need for additional actions after the discovery of additional equipment out of service conditions while in the LCO Action.~~
- ~~e. Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.~~

DELETE

## 6.9 REPORTING REQUIREMENTS

### ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted in accordance with 10 CFR 50.4.

### STARTUP REPORT

6.9.1.1 DELETED

6.9.1.2 DELETED

6.9.1.3 DELETED

ADMINISTRATIVE CONTROLS

ANNUAL REPORTS<sup>1/</sup>

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include a tabulation on an annual basis for the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,<sup>2/</sup> e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

~~If the results of specific activity analysis in which the primary coolant exceeded the limits of specification 3.4.8.a then the following information shall be included along with the results of specific activity analysis results in which the primary coolant exceeded the limits of the specifications: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radio-iodine performed prior to exceeding the limit, results of analysis while the limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit~~

**DELETE**

<sup>1/</sup>A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

<sup>2/</sup>This tabulation supplements the requirements of § 20.2206 of 10 CFR Part 20.

## ADMINISTRATIVE CONTROLS

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### MONTHLY REACTOR OPERATING REPORT

DELETE

6.9.1.10 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or Safety Valves, shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

### CORE OPERATING LIMITS REPORT

6.9.1.14 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

1.  $f_1(\Delta I)$  limits for Overtemperature Delta T Trip Setpoints and  $f_2(\Delta I)$  limits for Overpower Delta T Trip Setpoints for Specification 2.2.1.
2. Moderator Temperature Coefficient BOL and EOL limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
3. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
4. Control Bank Insertion Limits for Specification 3/4.1.3.6,
5. AXIAL FLUX DIFFERENCE Limits for Specification 3/4.2.1,
6. Heat Flux Hot Channel Factor and  $K(z)$  for Specification 3/4.2.2, and
7. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3.

6.9.1.14.a The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by NRC in:

1. BAW-10180P-A, Rev. 1, "NEMO - NODAL EXPANSION METHOD OPTIMIZED", March 1993. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
2. BAW-10169P-A, "RSG PLANT SAFETY ANALYSIS - B&W SAFETY ANALYSIS METHODOLOGY FOR RECIRCULATING STEAM GENERATOR PLANTS", October 1989. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
3. BAW-10163P-A, Core Operating Limit Methodology for Westinghouse-Designed PWRs, June 1989. (FCF Proprietary)  
(Methodology for Specification 2.2.1, - Limiting Safety System Settings [ $f_1(\Delta I)$ ,  $f_2(\Delta I)$  limits], 3.1.3.5 - Shutdown Bank Insertion Limits, 3.1.3.6 - Control Bank Insertion Limits, 3/4.2.1 - Axial Flux Difference, 3/4.2.2 - Heat Flux Hot Channel Factor, 3/4.2.3 - Nuclear Enthalpy Rise Hot Channel Factor)
4. BAW-10168P-A, Rev. 2, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)
5. BAW-10168P-A, Rev 3, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)

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6.11 RADIATION PROTECTION PROGRAM (DELETED)

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) (2) of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit\* (RWP). Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

**DELETE**

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility RADCON/Chemistry Control Manager RWP.

6.12.2 The requirements of 6.12.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/ hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or the RADCON/Chemistry Control Manager.

**INSERT D**

**DELETE**

\* Radiological Control personnel or personnel escorted by Radiological Control personnel in accordance with approved emergency procedures, shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

ADMINISTRATIVE CONTROLS

6.15 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous and Solid)

6.15.1 Licensee initiated major changes to the radioactive waste systems (liquid, gaseous and solid):\*

1. Shall be reported to the Commission in the Annual Radioactive Effluent Report for the period in which the evaluation was reviewed in accordance with TVA-NQA-PLN89-A. The discussion of each change shall contain:
  - a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;
  - b. sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
  - c. a detailed description of the equipment, components and processes involved and the interfaces with other plant systems;
  - d. an evaluation for the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;
  - e. an evaluation of the change which shows the expected maximum exposures to individual in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto;
  - f. a comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made;
  - g. an estimate of the exposure to plant operating personnel as a result of the change; and
  - h. documentation of the fact that the change was reviewed and found acceptable in accordance with TVA-NQA-PLN89-A.
2. Shall become effective upon review and acceptance in accordance with TVA-NQA-PLN89-A.

DELETE

\* Submittal of information required by this section may be made as part of the FSAR update.

## INSERT A

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

## INSERT B

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

## INSERT C

Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.

## INSERT D

### 6.12 High Radiation Area

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

#### 6.12.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
- b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP) or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously displays radiation dose rates in the area; or
  2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or
  4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose

rates in the area; who is responsible for controlling personnel exposure within the area, or

- (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

6.12.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
  - 1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.
  - 2. Doors and gates shall remain locked except when needed for personnel or equipment access.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  - 1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  - 2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or
  - 3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or

- (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for Controlling personnel radiation exposure in the area, and with the means to communicate with and control every individual in the area.
- 4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.
  - e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.
  - f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.

**ENCLOSURE 3**

**PROPOSED TECHNICAL SPECIFICATION PAGES**

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b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or

c. Reactor coolant system leakage through a steam generator to the secondary system.

#### MEMBER(S) OF THE PUBLIC

1.17 DELETED

#### OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.18 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.6 and 6.9.1.8.

#### OPERABLE - OPERABILITY

1.19 A system, subsystem, train, or component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

#### OPERATIONAL MODE - MODE

1.20 An OPERATIONAL MODE (i.e., MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

#### PHYSICS TESTS

1.21 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14.0 of the FSAR, 2) authorized under the provisions of 10 CFR 50.59, or 3) otherwise approved by the Commission.

## ADMINISTRATIVE CONTROLS

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- c. A Radiological Control technician# shall be onsite when fuel is in the reactor.
- d. DELETED
- e. DELETED
- f. The Operations Superintendent shall hold a Senior Reactor Operator license.
- g. Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety-related functions (e.g., senior reactor operators [SROs], licensed reactor operators [ROs], health physicists, assistant unit operators [AUOs] and key maintenance personnel).

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or the Plant Manager's designee, in accordance with approved administrative procedures, and with documentation of the basis for granting the deviation. Routine deviation from the working hour guidelines shall not be authorized.

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

- h. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

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#The Radiological Control technician may be offsite for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

## ADMINISTRATIVE CONTROLS

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### 6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE) (DELETED)

### 6.2.4 SHIFT TECHNICAL ADVISOR (STA) (DELETED)

### 6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in Regulatory Guide 1.8, Revision 2 (April 1987) for all new personnel qualifying on positions identified in Regulatory Position C.1 after January 1, 1990. Personnel qualified on these positions prior to this date will still meet the requirements of Regulatory Guide 1.8, Revision 1-R (May 1977).

6.3.2 For the purpose of 10 CFR 55.4, a licensed senior reactor operator and a licensed reactor operator are those individuals who, in addition to meeting the requirements of TS 6.3.1, perform the functions described in 10 CFR 50.54(m).

## ADMINISTRATIVE CONTROLS

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- b. Refueling operations.
- c. Surveillance and test activities of safety-related equipment.
- d. DELETED
- e. DELETED
- f. Fire Protection Program implementation.
- g. DELETED
- h. Quality Assurance Program for effluent and environmental monitoring, using the guidance contained in Regulatory Guide 4.15, December 1977, or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.
- i. OFFSITE DOSE CALCULATION MANUAL implementation.

6.8.2 DELETED

6.8.3 DELETED

6.8.4 The following programs shall be established, implemented, and maintained.

a. Primary Coolant Sources Outside Containment

A program to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The

## ADMINISTRATIVE CONTROLS

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systems include the safety injection system, residual heat removal system, chemical and volume control system, containment spray system, and RCS sampling system. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at least once per 18 months.

The provisions of SR 4.0.2 are applicable.

b. In-Plant Radiation Monitoring (DELETED)

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- (i) Identification of a sampling schedule for the critical variables and control points for these variables,
- (ii) Identification of the procedures used to measure the values of the critical variables,
- (iii) Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage,
- (iv) Procedures for the recording and management of data,
- (v) Procedures defining corrective actions for off-control point chemistry conditions,
- (vi) Procedures identifying (a) the authority responsible for the interpretation of the data; and (b) the sequence and timing of administrative events required to initiate corrective action.

## ADMINISTRATIVE CONTROLS

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d. DELETED

e. Postaccident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for sampling and analysis,
- (iii) Provisions for maintenance of sampling and analysis equipment.

f. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and set-point determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to, UNRESTRICTED AREAS conforming to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.

## ADMINISTRATIVE CONTROLS

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- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,
- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY shall be in accordance with the following:
  1. For noble gases: Less than or equal to a dose rate of 500 mrem/yr to the whole body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
  2. For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a member of the public from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and
- 10) Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency.

g. Radiological Environmental Monitoring Program (DELETED)

## ADMINISTRATIVE CONTROLS

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### h. Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 12.0 psig.

The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the combined Type B and Type C tests, and  $\leq 0.75 L_a$  for Type A tests;
- b. Air lock testing acceptance criteria are:
  - 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
  - 2) For each door, leakage rate is  $\leq 0.01 L_a$  when pressurized to  $\geq 6$  psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

### i. Configuration Risk Management Program (DELETED)

## ADMINISTRATIVE CONTROLS

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(describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

### ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT<sup>1/</sup>

6.9.1.6 The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

6.9.1.7 (Relocated to the ODCM.)

### ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT<sup>1/</sup>

6.9.1.8 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be (1) consistent with the objectives outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

6.9.1.9 (Relocated to the ODCM or PCP.)

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<sup>1/</sup> A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

## ADMINISTRATIVE CONTROLS

### MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

### CORE OPERATING LIMITS REPORT

6.9.1.14 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

1.  $f_1(\Delta I)$  limits for Overtemperature Delta T Trip Setpoints and  $f_2(\Delta I)$  limits for Overpower Delta T Trip Setpoints for Specification 2.2.1.
2. Moderator Temperature Coefficient BOL and EOL limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
3. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
4. Control Bank Insertion Limits for Specification 3/4.1.3.6,
5. AXIAL FLUX DIFFERENCE Limits for Specification 3/4.2.1,
6. Heat Flux Hot Channel Factor and  $K(z)$  for Specification 3/4.2.2, and
7. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3.

6.9.1.14.a The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by NRC in:

1. BAW-10180P-A, Rev. 1, "NEMO - NODAL EXPANSION METHOD OPTIMIZED", March 1993. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
2. BAW-10169P-A, "RSG PLANT SAFETY ANALYSIS - B&W SAFETY ANALYSIS METHODOLOGY FOR RECIRCULATING STEAM GENERATOR PLANTS", October 1989. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
3. BAW-10163P-A, Core Operating Limit Methodology for Westinghouse-Designed PWRs, June 1989. (FCF Proprietary)  
(Methodology for Specification 2.2.1, - Limiting Safety System Settings [ $f_1(\Delta I)$ ,  $f_2(\Delta I)$  limits], 3.1.3.5 - Shutdown Bank Insertion Limits, 3.1.3.6 - Control Bank Insertion Limits, 3/4.2.1 - Axial Flux Difference, 3/4.2.2 - Heat Flux Hot Channel Factor, 3/4.2.3 - Nuclear Enthalpy Rise Hot Channel Factor)
4. BAW-10168P-A, Rev. 2, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)
5. BAW-10168P-A, Rev 3, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)

## ADMINISTRATIVE CONTROLS

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### 6.11 RADIATION PROTECTION PROGRAM (DELETED)

#### 6.12 High Radiation Area

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

#### 6.12.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
- b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP) or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously displays radiation dose rates in the area; or
  2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or
  4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
    - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

## ADMINISTRATIVE CONTROLS

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### 6.12.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
  1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.
  2. Doors and gates shall remain locked except when needed for personnel or equipment access.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or
  3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
    - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with and control every individual in the area.
  4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.

## ADMINISTRATIVE CONTROLS

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- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.
- f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.

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6.15 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous and Solid)\*\* (DELETED)

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DEFINITIONS

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## DEFINITIONS

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### IDENTIFIED LEAKAGE

1.16 IDENTIFIED LEAKAGE shall be:

- a. Leakage, such as that from pump seals or valve packing (except reactor coolant pump seal injection or leakoff) that is captured and conducted to collection systems or a sump or collecting tank, or
- b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
- c. Reactor coolant system leakage through a steam generator to the secondary system.

### MEMBER(S) OF THE PUBLIC

1.17 DELETED

### OFFSITE DOSE CALCULATION MANUAL

1.18 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.6 and 6.9.1.8.

### OPERABLE - OPERABILITY

1.19 A system, subsystem, train, or component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

## ADMINISTRATIVE CONTROLS

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- c. A Radiological Control technician# shall be onsite when fuel is in the reactor.
- d. DELETED
- e. DELETED
- f. The Operations Superintendent shall hold a Senior Reactor Operator license.
- g. Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety-related functions (e.g., senior reactor operators [SROs], licensed reactor operators [ROs], health physicists, assistant unit operators [AUOs] and key maintenance personnel).

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

Any deviation from the above guidelines shall be authorized in advance by the Plant Manager or the Plant Manager's designee, in accordance with approved administrative procedures, and with documentation of the basis for granting the deviation. Routine deviation from the working hour guidelines shall not be authorized.

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

- h. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

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# The Radiological Control technician may be offsite for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

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### 6.2.3 INDEPENDENT SAFETY ENGINEERING (ISE) (DELETED)

### 6.2.4 SHIFT TECHNICAL ADVISOR (STA) (DELETED)

## 6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in Regulatory Guide 1.8, Revision 2 (April 1987) for all new personnel qualifying on positions identified in Regulatory Position C.1 after January 1, 1990. Personnel qualified on these positions prior to this date will still meet the requirements of Regulatory Guide 1.8, Revision 1-R (May 1977)

6.3.2 For the purpose of 10 CFR 55.4, a licensed senior reactor operator and a licensed reactor operator are those individuals who, in addition to meeting the requirements of TS 6.3.1, perform the functions described in 10 CFR 50.54(m).

## 6.4 TRAINING

### 6.4.1 DELETED

## 6.5 REVIEW AND AUDIT

### 6.5.0 DELETED

### 6.5.1 PLANT OPERATIONS REVIEW COMMITTEE (PORC) (DELETED)

### 6.5.1A TECHNICAL REVIEW AND CONTROL (DELETED)

### 6.5.2 NUCLEAR SAFETY REVIEW BOARD (NSRB) (DELETED)

### 6.5.3 RADIOLOGICAL ASSESSMENT REVIEW COMMITTEE (RARC) (DELETED)

## ADMINISTRATIVE CONTROLS

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- h. Quality Assurance Program for effluent and environmental monitoring, using the guidance contained in Regulatory Guide 4.15, December 1977 or Regulatory Guide 1.21, Rev. 1, 1974 and Regulatory Guide 4.1, Rev. 1, 1975.
- i. OFFSITE DOSE CALCULATION MANUAL implementation.

6.8.2 DELETED

6.8.3 DELETED

6.8.4 The following programs shall be established, implemented, and maintained.

a. Primary Coolant Sources Outside Containment

A program to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the safety injection system, residual heat removal system, chemical and volume control system, containment spray system, and RCS sampling system. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at least once per 18 months.

The provisions of SR 4.0.2 are applicable.

b. In-Plant Radiation Monitoring (DELETED)

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- (i) Identification of a sampling schedule for the critical variables and control points for these variables,
- (ii) Identification of the procedures used to measure the values of the critical variables,
- (iii) Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage
- (iv) Procedures for the recording and management of data,
- (v) Procedures defining corrective actions for off-control point chemistry conditions,
- (vi) Procedures identifying (a) the authority responsible for the interpretation of the data; and (b) the sequence and timing of administrative events required to initiate corrective action.

d. Deleted

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e. Postaccident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for sampling and analysis,
- (iii) Provisions for maintenance of sampling and analysis equipment.

f. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and set-point determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents release from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.
- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases

ADMINISTRATIVE CONTROLS

6.8.4 f. Radioactive Effluent Controls Program (Cont.)

of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY shall be in accordance with the following:
  1. For noble gases: Less than or equal to a dose rate of 500 mrem/yr to the whole body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
  2. For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mrem/year to any organ.
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a member of the public from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and
- 10) Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

The provisions of SR 4.0.2 and 4.0.3 are applicable to the radioactive effluent controls program surveillance frequency.

g. Radiological Environmental Monitoring Program (DELETED)

h. Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 12.0 psig.

The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the combined Type B and Type C tests, and  $\leq 0.75 L_a$  for Type A tests;

## ADMINISTRATIVE CONTROLS

b. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
- 2) For each door, leakage rate is  $\leq 0.01 L_a$  when pressurized to  $\geq 6$  psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

i. Configuration Risk Management Program (DELETED)

## 6.9 REPORTING REQUIREMENTS

### ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted in accordance with 10 CFR 50.4.

### STARTUP REPORT

6.9.1.1 DELETED

6.9.1.2 DELETED

6.9.1.3 DELETED

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### ANNUAL REPORTS<sup>1/</sup>

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include a tabulation on an annual basis for the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,<sup>2/</sup> e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

<sup>1/</sup>A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

<sup>2/</sup>This tabulation supplements the requirements of § 20.2206 of 10 CFR Part 20.

## ADMINISTRATIVE CONTROLS

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### MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

### CORE OPERATING LIMITS REPORT

6.9.1.14 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

1.  $f_1(\Delta I)$  limits for Overtemperature Delta T Trip Setpoints and  $f_2(\Delta I)$  limits for Overpower Delta T Trip Setpoints for Specification 2.2.1.
2. Moderator Temperature Coefficient BOL and EOL limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
3. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
4. Control Bank Insertion Limits for Specification 3/4.1.3.6,
5. AXIAL FLUX DIFFERENCE Limits for Specification 3/4.2.1,
6. Heat Flux Hot Channel Factor and  $K(z)$  for Specification 3/4.2.2, and
7. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3.

6.9.1.14.a The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by NRC in:

1. BAW-10180P-A, Rev. 1, "NEMO - NODAL EXPANSION METHOD OPTIMIZED", March 1993. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
2. BAW-10169P-A, "RSG PLANT SAFETY ANALYSIS - B&W SAFETY ANALYSIS METHODOLOGY FOR RECIRCULATING STEAM GENERATOR PLANTS", October 1989. (FCF Proprietary)  
(Methodology for Specification 3.1.1.3-Moderator Temperature Coefficient)
3. BAW-10163P-A, Core Operating Limit Methodology for Westinghouse-Designed PWRs, June 1989. (FCF Proprietary)  
(Methodology for Specification 2.2.1, - Limiting Safety System Settings [ $f_1(\Delta I)$ ,  $f_2(\Delta I)$  limits], 3.1.3.5 - Shutdown Bank Insertion Limits, 3.1.3.6 - Control Bank Insertion Limits, 3/4.2.1 - Axial Flux Difference, 3/4.2.2 - Heat Flux Hot Channel Factor, 3/4.2.3 - Nuclear Enthalpy Rise Hot Channel Factor)
4. BAW-10168P-A, Rev. 2, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)
5. BAW-10168P-A, Rev 3, RSG LOCA - B&W Loss of Coolant Accident Evaluation Model for Recirculating Steam Generator Plants, (FCF Proprietary)  
(Methodology for Specification 3/4.2.2 - Heat Flux Hot Channel Factor)

6.11 RADIATION PROTECTION PROGRAM (DELETED)

6.12 HIGH RADIATION AREA

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

6.12.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
- b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP) or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously displays radiation dose rates in the area; or
  2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or
  4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
    - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.
- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

## ADMINISTRATIVE CONTROLS

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### 6.12.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

- a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:
  1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.
  2. Doors and gates shall remain locked except when needed for personnel or equipment access.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent, associated radiation survey, and other appropriate radiation protection equipment and measures.
- c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.
- d. Each individual or group entering such an area shall possess:
  1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or
  2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or
  3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,
    - (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or
    - (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with and control every individual in the area.
  4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.

## ADMINISTRATIVE CONTROLS

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- e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.
- f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.

ADMINISTRATIVE CONTROLS

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6.15 MAJOR CHANGES TO RADIOACTIVE WASTE TREATMENT SYSTEMS (Liquid, Gaseous and Solid) (DELETED)

**ENCLOSURE 4**

**CHANGES TO TS BASES PAGES**

Unit 1

Unit 2

B3/4 8-1

B3/4 8-1

## 3/4.8 ELECTRICAL POWER SYSTEMS

### BASES

#### 3/4.8.1 and 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. ~~When applying Action b of LCO 3.8.1.1, the Configuration Risk Management Program described in Section 6.8.4.i is required to be implemented.~~

**DELETE**

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

Action b of LCO 3.8.1.1 is further modified by a second note which precludes making more than one diesel generator inoperable on a pre-planned basis for maintenance, modifications, or surveillance testing. The intent of this footnote is to explicitly exclude the flexibility of removing a diesel generator set from service as a part of a pre-planned activity. While the removal of a diesel generator set (A or B train) is consistent with the initial condition assumptions of the accident analysis, this configuration is judged as imprudent. The term pre-planned is to be taken in the context of those activities which are routinely scheduled and is not relative to conditions which arise as a result of emergent or unforeseen events. As an example, this footnote is not intended to preclude the actions necessary to perform the common mode testing requirements required by Action b. As another example, this footnote is not intended to prevent the required surveillance testing of the diesel generators should one diesel generator maintenance be unexpectedly extended and a second diesel generator fall within its required testing frequency. Thus, application of the note is intended for pre-planned activities.

In addition, this footnote is intended to apply only to those actions taken directly on the diesel generator. For those actions taken relative to common support systems (e.g. ERCW), the support function must be evaluated for impact on the diesel generator.

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failure provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance to continued OPERABILITY of the other diesel generators.

## 3/4.8 ELECTRICAL POWER SYSTEMS

### BASES

#### 3/4.8.1 AND 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. ~~When applying Action b of LCO 3.8.1.1, the Configuration Risk Management Program described in Section 6.8.4.i is required to be implemented.~~

**DELETE**

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

Action b of LCO 3.8.1.1 is further modified by a second note which precludes making more than one diesel generator inoperable on a pre-planned basis for maintenance, modifications, or surveillance testing. The intent of this footnote is to explicitly exclude the flexibility of removing a diesel generator set from service as a part of a pre-planned activity. While the removal of a diesel generator set (A or B train) is consistent with the initial condition assumptions of the accident analysis, this configuration is judged as imprudent. The term pre-planned is to be taken in the context of those activities which are routinely scheduled and is not relative to conditions which arise as a result of emergent or unforeseen events. As an example, this footnote is not intended to preclude the actions necessary to perform the common mode testing requirements required by Action b. As another example, this footnote is not intended to prevent the required surveillance testing of the diesel generators should one diesel generator maintenance be unexpectedly extended and a second diesel generator fall within its required testing frequency. Thus, application of the note is intended for pre-planned activities.

In addition, this footnote is intended to apply only to those actions taken directly on the diesel generator. For those actions taken relative to common support systems (e.g. ERCW), the support function must be evaluated for impact on the diesel generator.

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failures provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance of continued OPERABILITY of the other diesel generators.