



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

WBN-TS-02-08

10 CFR 50.90

DEC 19 2002

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

In the Matter of the)
Tennessee Valley Authority)

Docket No. 50-390

WATTS BAR NUCLEAR PLANT (WBN) - TECHNICAL SPECIFICATION (TS) CHANGE
TS-02-08, INCORPORATION OF GENERIC TS CHAPTER 5.0 ISSUES AS CONTAINED IN
TECHNICAL SPECIFICATION TASK FORCE (TSTF) TRAVELERS 258 REVISION 4, 299,
AND 308, REVISION 1

The purpose of this letter is to request that Appendix A of Facility Operating License NPF-90, Watts Bar Unit 1 Technical Specifications, be amended in accordance with 10 CFR 50.90. The proposed amendment affects TS Chapter 5.0, "Administrative Controls," and incorporates three approved TSTFs (listed below) which have been incorporated into Revision 2 of NUREG 1431, "Standard Technical Specifications Westinghouse Plants:"

TSTF-258, Revision 4 - Changes to Section 5.0, Administrative Controls

TSTF-299, Revision 0 - Administrative Controls Program 5.5.2.b Test Interval and Exception

TSTF-308, Revision 1 - Determination of Cumulative and Projected Dose Contributions in the
Radioactive Effluent Controls Program

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In addition to the changes based on the TSTFs, the amendment proposes two editorial changes. These revisions either update personnel titles with the titles currently used at WBN and TVA's other nuclear units or clarify required staffing levels.

Provided in Enclosure 1 is a complete description and justification of the proposed amendment. An annotated version of the affected pages from Chapter 5.0 is provided in Enclosure 2.

The proposed amendment has been reviewed and approved by the Watts Bar Plant Operations Review Committee and the Nuclear Safety Review Board.

In accordance with 10 CFR 50.91(b)(1), a copy of this proposed license amendment is being forwarded to the state designee for the State of Tennessee.

There are no regulatory commitments in this submittal and TVA has not defined a specific schedule or milestone by which the approval of the amendment is desired. TVA requests that once the amendment is approved, 45 days be allowed for implementation.

If you have any questions about this request, please contact me at (423) 365-1824. I declare under penalty of perjury that the foregoing is true and correct. Executed on this 19th day of December, 2002.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. L. Pace', with a stylized, cursive script.

P. L. Pace

Manager, Site Licensing and Industry Affairs

DEC 19 2002

PLP:

Enclosures

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ENCLOSURE 1

**TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT (WBN)
UNIT 1
DOCKET NUMBER 390**

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE NUMBER 02-08

TVA'S EVALUATION

Subject: Watts Bar Nuclear Plant (WBN) - Docket Number 50-390 - Technical Specification (TS) Change Number 02-08, Incorporation of Generic TS Chapter 5.0 Issues as Contained in Technical Specification Task Force (TSTF) Travelers 258 Revision 4, 299 and 308 Revision 1

1.0 DESCRIPTION

This letter proposes an amendment to Appendix A, "Technical Specifications (TS)," of the WBN Operating License, NFP-90. The proposed amendment incorporates approved Technical Specification Task Force (TSTF) travelers into Chapter 5.0, "Administrative Controls" and makes editorial updates to Section 5.1, "Responsibility," and Section 5.2.2, "Unit Staff." The following tabulation outlines the changes proposed in the amendment and identifies the basis for the change:

Revised Technical Specification		TSTF/Basis for Revision
1.	5.1, "Responsibility," Section 5.1.2	Editorial update of staff titles
2.	5.2.2, "Unit Staff"	TSTF-258 Revision 4, NUREG 1431, and an editorial change to clarify staffing requirements
3.	5.3, "Unit Staff Qualifications," Section 5.3.2	TSTF-258, Revision 4
4.	5.7.2.4, "Primary Coolant Sources Outside Containment	TSTF-299, Revision 0
5.	5.7.2.7, "Radioactive Effluent Controls Program"	TSTF-258, Revision 4 TSTF-308, Revision 1
6.	5.9.4, "Monthly Operating Reports"	TSTF-258, Revision 4
7.	5.11, "High Radiation Area"	TSTF-258, Revision 4

2.0 PROPOSED CHANGE

The specific changes proposed in this amendment request and the justification for the changes are discussed in detail in Section 4.0, "Technical Analysis."

3.0 BACKGROUND

The WBN TS were initially developed as Improved Standard Technical Specifications (ISTS) based on Revision 0 of NUREG 1431, "Standard Technical Specifications Westinghouse Plants," and proposed changes to the NUREG incorporated in Revision 1. The TSTF process is an industry and NRC controlled process for proposing and incorporating improvements to the ISTS. The revisions proposed by this amendment principally impact Chapter 5.0, "Administrative Controls," and are based on three TSTFs (258, 299, and 308). Each of the above TSTFs have been incorporated into the current revision of NUREG 1431 (Revision 2 dated April 30, 2001).

TVA has been striving to standardize processes and procedures throughout the three nuclear sites in an effort to enhance unit operation. This includes the use of standard terminology and where possible, the consistent implementation of TS programs. The majority of the proposed changes are to implement that philosophy and consistent with this, an amendment request was submitted for TVA's Sequoyah Nuclear Plant on March 4, 2002, to address TSTFs 258, 299 and 308. For TVA's Browns Ferry Nuclear Plant, TSTF-258 was incorporated in amendments approved on November 21, 2000. The changes proposed in the WBN amendment incorporate the TSTFs as written with only two minor adjustments. One adjustment changes the title "health physicists" contained in TSTF-258 for TS 5.2.2.d to "radiological controls technician." The title adjustment allows the changes made under the TSTF to be consistent with the title used in the existing TS 5.2.2.d (under the TSTF will be renumbered to 5.2.2.c). The second adjustment is to omit the allowance for exposure monitoring on a group basis provided in TSTF-258. The balance of the revisions proposed in this amendment are editorial in nature and either update personnel titles with the titles currently used at WBN and TVA's other nuclear units or clarify required staffing levels.

Additional information regarding the plant systems or programs addressed by this amendment may be found in the Updated Final Safety Analysis Report (UFSAR) or other key documents. The following tabulation identifies relevant documents or sections of documents which relate to the proposed changes:

Change Number	Administrative Section Affected	References
1.	5.1, "Responsibility," Section 5.1.2	Updated Final Safety Analysis Report (UFSAR) Section 13.1.3, "Qualification Requirements for Nuclear Facility Personnel."
2.	5.2.2, "Unit Staff"	UFSAR Chapter 13, Conduct of Operations." Section C.5.1 and C.5.8 of the Radiological Emergency Plan (REP). Section 2.1, "Safe Shutdown Procedures," of Part V, "Manual Actions, Repairs, and Emergency Lighting," of the Fire Protection Report.
3.	5.3, "Unit Staff Qualifications," Section 5.3.2	UFSAR Section 13.1.3, "Qualification Requirements for Nuclear Facility Personnel."
4.	5.7.2.4, "Primary Coolant Sources Outside Containment	UFSAR Section 6.2.2, "Containment Heat Removal." UFSAR Section 6.3, "Emergency Core Cooling System." UFSAR Section 9.3.4, "Chemical and Volume Control System." UFSAR Section 11.3, "Gaseous Waste Systems." UFSAR Section 9.3.2.6, "Postaccident Sampling Subsystem."
5.	5.7.2.7, "Radioactive Effluent Controls Program"	UFSAR Section 1.1.2, "Licensing Basis Documents." UFSAR Chapter 11.0, "Radioactive Waste Management." WBN Offsite Dose Calculation Manual (ODCM).
6.	5.9.4, "Monthly Operating Reports"	NRC Generic Letter 97-02, "Revised Contents of the Monthly Operating Report."
7.	5.11, "High Radiation Area"	UFSAR Section 12.5.3, "Procedures."

4.0 TECHNICAL ANALYSIS

The following discussion addresses the seven proposed changes to the WBN TS. Included in this discussion is a description of the change along with a justification for the change. For the changes which are based on a TSTF, TVA has reviewed the TSTF, Revision 2 of NUREG 1431 and the justification for the change provided in the TSTF. Based on this review, TVA considers the justification provided for the TSTFs applicable to WBN and sufficient to justify the requested changes. The justification provided in the TSTF is included in the following discussion to assist in the review process:

Change Number 1:

Description of the Change:

TS Section 5.1.2 currently reads as follows:

The Shift Operations Supervisor (SOS) shall be responsible for the control room command function. During any absence of the SOS from the control room while the unit is in MODE 1, 2, 3, or 4, an individual with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the SOS from...

The titles for the Operations staff have changed and therefore, TS 5.1.2 is being revised to read:

The Shift Manager (SM) shall be responsible for the control room command function. During any absence of the SM from the control room while the unit is in MODE 1, 2, 3, or 4, an individual with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the SM from...

Justification for Change Number 1:

The proposed change is not based on a TSTF but is an editorial update of the titles of the Operations staff. The titles reflected in this change are consistent with the titles used at all TVA nuclear sites and with the organizational information provided in Section 13.1.3, "Qualification Requirements for Nuclear Facility Personnel," of the Updated Final Safety Analysis Report (UFSAR). The proposed revision is strictly an administrative issue which has no impact on operational safety of the unit.

Change Number 2:

An editorial change is outlined below for Part 1 of the changes made to TS 5.2.2. The remainder of the changes made to TS 5.2.2 address Revision 4 of TSTF-258.

Description of the Change - Part 1 of Change Number 2:

TS 5.2.2.a currently reads as follows:

- a. A non-licensed operator shall be assigned to each reactor containing fuel and an additional non-licensed operator shall be assigned for each control room from which a reactor is being operating in MODES 1, 2, 3, or 4. With both units shutdown or defueled, a total of three non-licensed operators are required.

The proposed amendment rewords TS 5.2.2.a to read as follows.

- a. A non-licensed operator shall be assigned to each reactor containing fuel and an additional non-licensed operator shall be assigned for each control room from which a reactor is operating in MODES 1, 2, 3, or 4.

Change Justification for Part 1 of Change Number 2:

TS 5.2.2.a is being revised to reflect the wording currently contained in Revision 2 of NUREG 1431. In addition, WBN Unit 1 functions as a single unit plant. Therefore, the last sentence of the original version of TS 5.2.2.a has been removed because it inappropriately implied that the non-licensed operator staffing levels had to take Unit 2 (a deferred unit) into consideration when Unit 1 was in an outage. In addition to the requirements of TS 5.2.2.a, the staffing levels for non-licensed operators are further defined in Section C.5.1 of the Radiological Emergency Plan (REP) and in Section 2.1, "Safe Shutdown Procedures," of Part V, "Manual Actions, Repairs, and Emergency Lighting," of the Fire Protection Report.

Description of the Change - Part 2 of Change Number 2:

TS 5.2.2.b currently reads as follows:

- b. At least one licensed Reactor Operator (RO) shall be present in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3, or 4, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room.

Consistent with Revision 4 of TSTF-258, TS 5.2.2.b is deleted by this amendment request. As a result of this TS 5.2.2.c through TS 5.2.2g are renumbered TS 5.2.2.b through TS 5.2.2.f.

Description of the Change - Part 3 of Change Number 2:

TS 5.2.2.e currently reads as follows:

- e. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety related functions (e.g., licensed SROs, licensed ROs, radiological controls technicians, auxiliary operators, 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 an 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;
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.

TS 5.2.2.e was renumbered to TS 5.2.2.d and revised to read as follows. It should be noted that the title "health physicist," used in the TSTF, was changed to "radiological controls technicians" for consistency with the title used in the existing TS 5.2.2.d (under the TSTF will be renumbered to 5.2.2.c):

- d. Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety related functions (e.g., licensed Senior Reactor Operators (SROs), licensed Reactor Operators (ROs), radiological controls technicians, auxiliary operators, 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.

Description of the Change - Part 4 of Change Number 2:

For TS 5.2.2.g, the italicized text below was either deleted (strikethrough) or added so that the TS reads as follows. Note that as indicated previously, TS 5.2.2.g is being renumbered to TS 5.2.2.f:

- g. ~~The Shift Technical Advisor (STA)~~ An individual shall provide advisory technical support to the ~~Shift Operations Supervisor (SOS)~~ unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~ This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on shift (Generic Letter 86-04 dated 02/13/86).

Justification for Parts 2 through 4 of Change Number 2 as Stated in TSTF-258, Revision 4:

The requirements of 10 CFR 50.54(m)(2)(iii) and 50.54(k) adequately provide for shift manning. These regulations, 50.54(m)(2)(iii), require "when a nuclear power unit is in an operational mode other than cold shutdown or refueling, as defined by the unit's technical specifications, each licensee shall have a person holding a senior operator license for the nuclear power unit in the control room at all times. In addition to this senior operator, for each fueled nuclear power unit, a licensed operator or senior operator shall be present at the controls at all times." Further, 50.54(k) requires "An operator or senior operator licensed pursuant to part 55 of this chapter shall be present at the controls at all times during the operation of the facility." The ISTS 5.2.2.b requirements will be met through compliance with these regulations and is not required to be reiterated in the ISTS.

In the April 9, 1997, letter from C. Grimes to J. Davis, the staff proposed revising 5.2.2.c by adding "Shift crew composition shall meet the requirements stipulated herein and in 10 CFR 50.54(m)." Adding this sentence is a duplicative of the code of federal regulations since all licensees are required to meet 10 CFR 50.54.

Section 5.2.2.e is revised from specific working hour limits to administrative procedures to control working hours. 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 technical specifications 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 Superintendent] 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 bases is unnecessary since sufficient administrative controls and policies exist, as well as the role of the individuals supervisors in supervising personnel prevent excessive or abuse of overtime.

Section 5.2.2.g is revised to eliminate the title of "Shift Technical Advisor (STA)." STAs are not used at all plants (the function may be fulfilled by one of the other on-shift individuals). Therefore, 5.2.2.g is revised so that it does not imply that the STA and the Shift Supervisor must be different individuals. Option 1 of the Commission Policy Statement on Engineering Expertise on Shift is satisfied by assigning an individual with specified educational qualifications to each operating crew as one of the SROs (preferably the shift supervisor) required by 10 CFR 50.54(m)(2)(i) to provide the technical expertise on shift. However, the 5.2.2.g wording of, "the STA shall provide...support to the Shift Supervisor...", is considered to be easily misinterpreted to require separate individuals. Therefore, the wording is revised so that the STA function may be provided by either a separate individual or the individual who also fulfills another role in the shift command structure.

Change Number 3:

Description of the Change:

Based on Revision 4 of TSTF-258, TS 5.3.2 was added. The new TS section reads as follows:

For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54 (m).

Justification for Change Number 3 as Stated in TSTF-258, Revision 4:

The April 9, 1997, letter from C. Grimes to J. Davis proposed a Reviewers Note in conjunction with the addition of paragraph 5.3.2. The Reviewer's Note stated: "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 5.3.2." This Reviewer's Note is not required based on the discussions in Generic Letter 87-16 (Transmittal of NUREG-1262) which indicated that facilities can take credit for more than the minimum number of watchstanders required by Technical Specifications 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 operator and/or senior operator as appropriate. By stipulating enhanced staffing requirements in paragraph 5.3.2, when a licensee decided to change its staffing requirements, a license amendment request would have to be submitted, reviewed and approved before the staffing requirements could be made which may not be timely and is an unnecessary burden on the licensee's and NRC's resources.

Change Number 4:

Description of the Change:

The ISTS number for WBN TS 5.7.2.4 is 5.5.2. For TS 5.7.2.4.b, the italicized text below was either deleted (strikethrough) or added in accordance with TSTF-299 so that the TS reads as follows:

- b. Integrated leak test requirements for each system at ~~refueling cycle intervals or~~ *less least once per 18 months.*

The provisions of SR 3.0.2 are applicable.

Justification for Change Number 4 as Stated in TSTF-299:

ISTS 5.5.2.b provides integrated leak test requirements for each system at refueling cycle intervals or less. ISTS 5.5.2.b is revised to require integrated leak test requirements for each system at [18] month intervals or less. ISTS 5.5.2.b is essentially a Surveillance Requirement. Since normal “refueling cycle intervals” are 18 months, presenting the requirement in this manner achieves consistency with similar requirements in the ISTS. The ISTS Surveillance Requirements specify “[18] months” and not refueling cycle intervals for Surveillance performed at refueling intervals. This change also allows approved changes to ISTS 5.5.2.b associated with implementation of 24 month refueling cycles to be explicitly documented. As a result of explicitly stating the interval for the test, it will no longer be possible to account for shutdowns or power reductions that may occur during the cycle in order to satisfy the interval requirements for the tests required by ISTS 5.5.2 b i.e., a refueling cycle may be longer than [18] months, in order to achieve the required fuel burnup. But the testing of ISTS 5.5.2.b would be required to be performed once per [18] months. For consistency with normal Surveillance Requirements in the ISTS LCO Sections that allow a 25% extension of the Frequency in accordance with ISTS SR 3.0.2, ISTS 5.5.2.b is considered a Surveillance Requirement. ISTS 5.5.2 is revised to allow the provisions of ISTS SR 3.0.2 to be applicable to ISTS 5.5.2 b. The applicability of ISTS SR 3.0.2 must be explicitly stated in ISTS 5.5.2 since ISTS SR 3.0.2 only applies to the ISTS LCO Sections (i.e., ISTS LCO Sections 3.1 through 3.9 or 3.10).

Change Number 5:

The ISTS number for WBN TS 5.7.2.7 is 5.5.4. The changes outlined in Parts 1 through 3 below for Change Number 5 address Revision 4 of TSTF-258. Part 4 of the change addresses Revision 1 of TSTF-308. For TSTF-258, only certain parts of the TSTF have been addressed by this amendment request. For the parts of TSTF-258 not addressed by this amendment, the current wording of TS 5.7.2.7 was consistent with that proposed in the TSTF.

Description of the Change - Part 1 of Change Number 5:

TS 5.7.2.7.g currently reads as follows:

- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas at or beyond the site boundary shall be limited to 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/yr to any organ;

For TS 5.7.2.7.g, the italicized text below was either added or significantly reworded so that the TS reads as follows:

- g. 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: a dose rate \leq 500 mrem/yr to the whole body and a dose rate \leq 3000 mrem/yr to the skin, and*
 - 2. *For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate \leq 1500 mrem/yr to any organ.*

Description of the Change - Part 2 of Change Number 5:

TS 5.7.2.7.j currently reads as follows:

- j. 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 190.

The italicized text below was added to TS 5.7.2.7.j so that it reads as follows:

- j. 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 190.

Description of the Change - Part 3 of Change Number 5:

The following statement was added to TS 5.7.2.7 after TS 5.7.2.7.j:

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the radioactive Effluent Controls Program surveillance frequency.

Justification for Parts 1 through 3 of Change Number 5 as Stated in TSTF-258, Revision 4:

After issuance of Generic Letter 89-01, 10 CFR 20 was updated. The NRC issued a draft Generic Letter, 93-XX, on proposed changes to STS NUREGS based on the new 10 CFR 20. The proposed changes are consistent with the draft generic letter and the April 9, 1997, letter from C. Grimes to J. Davis with some exceptions noted below. The proposed changes maintain the same overall level of effluent control while retaining the operational flexibility that exists with current TS under the previous 10 CFR 20. This limitation (i.e., 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.A 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 20 requirements. The recommendations in the April 9, 1997, letter uses the term "total body" in reference to the noble gas dose rate. This limit is based on the dosimetry of ICRP 2, and the correct term is "whole body" as shown in NUREG-1301, Specification 3.11.2.1, Page 45. Additionally, some minor editorial changes were made from the recommendations in the April 9, 1997, letter.

The provisions of SR 3.0.2 are applied to the Radioactive Effluent Controls Program surveillance frequencies (5.5.4e) to allow for scheduling flexibility. SR 3.0.2 permits a 25% extension of the interval specified in the Frequency (31 days). Allowing a 25% extension in the frequency of performing the monthly cumulative dose and projected dose calculation for the current quarter/year will have no affect on outcome of the calculations.

Description of the Change - Part 4 of Change Number 5:

TS 5.7.2.7.e currently reads as follows:

- e. 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;

For TS 5.7.2.7.e, the italicized text below was either deleted (strikethrough) or added so that the TS reads as follows:

- e. Determination of cumulative dose ~~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. *Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days;*

Justification for Part 4 of Change Number 5 as Stated in TSTF-308, Revision 1:

The NRC Staff's draft STS for 4-loop Westinghouse plants (8/14/87 letter to Texas Utilities) included Radioactive Effluent Technical Specifications.

SR 4.11.1.2 for DOSE states, "Cumulative dose contributions from liquid effluents for the current calendar quarter and the current calendar year shall be determined in accordance with the methodology and parameters in the ODCM at least once per 31 days."

SR 4.11.1.3.1 for LIQUID RADWASTE TREATMENT SYSTEM states, "Doses due to liquid releases from each unit to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the methodology and parameters in the ODCM when Liquid Radwaste Treatment Systems are not being fully utilized."

Generic Letter 89-01 appears to have combined these two Surveillance Requirements for cumulative and projected doses. In combining these requirements in Generic Letter 89-01, the new program element can be interpreted to require determining projected dose contribution for the current calendar quarter and current calendar year every 31 days. Therefore, the proposed change clarifies the wording in 5.5.4.e to not require dose projections for a calendar quarter and a calendar year every 31 days.

Change Number 6:

Description of the Change:

The ISTS number for WBN TS 5.9.4 "Monthly Operating Reports," is 5.6.4. TS 5.9.4 currently reads as follows. The proposed amendment deletes the text that is indicated below (strikethrough):

Routine reports of operating statistics and shutdown experience, ~~including documentation of all challenges to the pressurizer power operated relief valves or pressurizer 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.

Justification for Change Number 6 as Stated in TSTF-258, Revision 4:

The reporting of pressurizer safety and relief valve failures and challenges is 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 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 pressurizer safety and relief valves. NRC (AEOD) was contacted and indicated that this information was not required for the Performance Indicator Program and therefore would not need to be reported. Based on this information, it is acceptable to delete the requirement to provide documentation of all challenges to the pressurizer power operated relief valves or pressurizer safety valves.

Change Number 7:

Description of the Change:

The ISTS number for WBN TS 5.11 "High Radiation Area," is 5.7. In accordance with Revision 4 of TSTF-258, the current wording of TS 5.11 was replaced with the following:

5.11 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:

5.11.1 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 that includes specification of radiation dose rates in the immediate work area(s) 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 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.

5.11.2 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 during periods of personnel or equipment entry or exit.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) 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 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 individual's, 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.

Justification for Change Number 7 as Stated in TSTF-258, Revision 4:

Section 5.7 is revised in accordance with 10 CFR 20.1601(c) and updates the acceptable alternate controls to those given in 10 CFR 20.1601. These changes are consistent (with the exception provided below) with the draft Generic Letter (93-XX) on proposed changes to STS NUREGs based on the new 10 CFR 20 and the letter from C. Grimes, NRC, to J. Davis, NEI dated April 9, 1997:

- Changes to 5.7.1 d.4.(ii): In the event that communications are lost between an individual worker, and the Radiation Protection staff providing the remote surveillance, the worker should be able to continue to work in the area provided that the worker can communicate with other workers in the same area who are working on the same job and under the same RWP, and provided that the communications remain satisfactory between these workers and the RP staff providing the remote surveillance.
- Changes to 5.7.1.e and 5.7.2.e: Revised to allow any individual or group of individuals to enter a high-high radiation area (dose rates > 1 Rem/hr at 30 cm) when accompanied by an individual qualified in radiation protection procedures with a radiation dose rate monitoring device. The qualified individual is responsible for providing positive control and shall perform periodic radiation surveillances at the frequency specified in the RWP. Furthermore, 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. Many plant's CTS requirements allow this option, which compliments the plant's practices of requiring qualified individual escort at all times during the work in a high-high radiation area. This option would provide adequate protection while (keeping with ALARA practices) minimizing exposure to the qualified individual.
- Changes to 5.7.2a: Section 5.7.2a is revised to state "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 ..." This change is consistent with RG 8.38 Section 2.5 which indicates that the use of a locked door or one control point where positive control over personnel entry is exercised. Posting an individual to monitor a door provides positive controls over a high radiation area.
- Changes to 5.7.2.a.1: The Shift Foreman is only one of the many possible operations shift management positions who may be designated for the key control function. This change is similar to the wording of NRC's July 28, 1995, letter to the Owner's Group Chairmen which identifies key control responsibility with the "shift supervisor, radiation protection manager, or his or her designee."
- Changes to 5.7.2.f (deleting "that is controlled as a high radiation area"): The 5.7.2.f provision has applied (in previous STS as well as ISTS NUREGs) without the added constraint of having the larger area controlled as a high radiation area. It is not always practical to control such areas as a High Radiation Area (outside of these High-High Radiation Areas). The proposed change to the NRC proposed Model Specification would restore the requirement as it exists in ISTS NUREG Revision 1.

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

There are seven administrative type changes to the Watts Bar (WBN) Technical Specification (TS) contained in this request. These changes are proposed to implement NRC approved Technical Specification Task Force (TSTF) Travelers 258 Revision 4; 299 and 308 Revision 1. The balance of the revisions proposed in this amendment request are editorial in nature and either update personnel titles with the titles currently used at WBN and TVA's other nuclear units or clarify required staffing levels.

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 affect only administrative requirements or programs. As indicated below, the justification for five of the changes (Parts 2 through 4 of Change Number 2 and Change Numbers 3, 5, 6, and 7) is based on the existence of a regulation or other regulatory document which controls the administrative requirements. For these changes, the proposed amendment modifies the administrative TS to make it consistent with the current regulations or NRC guidance document. Two changes (Change Number 1 and Part 1 of Change Number 2) are strictly editorial. In addition, two changes (Change Number 4 and Part 3 of Change Number 5) add a requirement to make the program consistent with the criteria for Surveillance Requirements in the Improved Standard Technical Specifications (ISTS). Based on the preceding information, the proposed amendment does not involve technical changes to the configuration or operation of the plant there is not a significant increase in the probability or consequences of an accident previously evaluated:

Change Number	Administrative Section Affected	Justification for the Change
1.	5.1, "Responsibility," Section 5.1.2	Editorial update of staff titles.
2.	5.2.2, "Unit Staff"	Part 1 of Change number 2 - Update to the wording contained in Revision 2 of NUREG 1431 and an editorial clarification of the number of non-licensed operators required for the operation of WBN Unit 1. Parts 2 through 4 of Change Number 2 - The existing administrative requirements are revised to align the requirements with 10 CFR 50.54.
3.	5.3, "Unit Staff Qualifications," Section 5.3.2	Adds TS 5.3.2 which clarifies the "Operator" and "Senior Operator" definitions in 10 CFR 55.4 and ties these positions to the requirements of 10 CFR 50.54.

Change Number	Administrative Section Affected	Justification for the Change
4.	5.7.2.4, "Primary Coolant Sources Outside Containment"	WBN TS 5.7.2.4 serves the same function as a Surveillance Requirement (SR). The proposed change structures TS 5.7.2.4 so that it is consistent with other ISTS SRs and the frequency extension allowed by SR 3.0.2.
5.	5.7.2.7, "Radioactive Effluent Controls Program"	The intent of the revisions to this TS are to: 1) eliminate possible confusion or improper implementation of the requirements of 10 CFR 20; 2) clarifies the wording to not require dose projections for a calendar quarter and a calendar year every 31 days; 3) structures the TS so that it is consistent with other ISTS SRs.
6.	5.9.4, "Monthly Operating Reports"	The proposed change makes the TS reporting requirements consistent with the reporting requirements in Generic Letter 97-02.
7.	5.11, "High Radiation Area"	The proposed revision updates the TS to be consistent with 10 CFR 20.1601(c) and updates the acceptable alternate controls to those given in 10 CFR 20.1601.

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

Response: No. As indicated above, 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 controlling normal plant operation. Therefore, the proposed changes do 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 assumptions made in WBN's safety analysis or the configuration of plant equipment important to safety. Additionally, several of the proposed revisions adjust the administrative requirements to be consistent with existing regulations or NRC guidance documents and therefore, will not adversely impact plant safety. The balance of the proposed changes are editorial updates or adjust a program to be consistent with the ISTS.

Based on the above, TVA concludes that the proposed amendment 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

By application dated December 19, 2002 (TS-02-08), the Tennessee Valley Authority (TVA) requested an amendment to Appendix A, "Technical Specifications (TS)," of the WBN Operating License, NFP-90. The amendment incorporates NRC approved Technical Specification Task Force (TSTF) travelers into Chapter 5.0, "Administrative Controls" and makes editorial updates to Section 5.1, "Responsibility," and Section 5.2.2, "Unit Staff." The following tabulation outlines the changes proposed in the amendment and identifies the basis for the change:

<u>Revised Technical Specification</u>		<u>TSTF/Basis for Revision</u>
1.	5.1, "Responsibility," Section 5.1.2	Editorial update of staff titles
2.	5.2.2, "Unit Staff"	TSTF-258 Revision 4, NUREG 1431 and an editorial change to clarify staffing requirements
3.	5.3, "Unit Staff Qualifications," Section 5.3.2	TSTF-258, Revision 4
4.	5.7.2.4, "Primary Coolant Sources Outside Containment	TSTF-299, Revision 0
5.	5.7.2.7, "Radioactive Effluent Controls Program"	TSTF-258, Revision 4 TSTF-308, Revision 1
6.	5.9.4, "Monthly Operating Reports"	TSTF-258, Revision 4
7.	5.11, "High Radiation Area"	TSTF-258, Revision 4

The WBN TS were initially developed as Improved Standard Technical Specifications (ISTS) based on Revision 0 of NUREG 1431, "Standard Technical Specifications Westinghouse Plants," and proposed changes to the NUREG incorporated in Revision 1. The TSTF process is a nuclear industry and NRC controlled process for proposing and incorporating improvements to the ISTS. The revisions addressed by the WBN amendment impact Chapter 5.0, "Administrative Controls," and are based on three TSTFs (258, 299, and 308). Each of the TSTFs have been incorporated into the current revision of NUREG 1431 (Revision 2 dated April 30, 2001). In addition to the changes based on TSTFs, the amendment includes two editorial changes which also impact Chapter 5.0. One of the editorial changes updates the titles for operations personnel. The other editorial change clarifies staffing requirements for non-licensed operators.

For the changes which are based on a TSTF, TVA's evaluation has determined that the industry justification (refer to Section 4.0, "Technical Analysis") provided for NRC approval of the TSTFs are applicable to WBN and is sufficient to justify the requested changes. Therefore, TVA concludes, based on the considerations

previously discussed, (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. TSTF-258, Revision 4, "Changes to Section 5.0, Administrative Controls."
3. TSTF-299, "Administrative Controls Program 5.5.2.b Test Interval and Exception."
4. TSTF-308, Revision 1, "Determination of Cumulative and Projected Dose Contributions in the Radioactive Effluent Controls Program."

Enclosure 2
Annotated Version of Affected Pages from Chapter 5.0

The revisions are indicated as follows:

Deletions - strikethrough text

Additions - Bold italicized text

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

- 5.1.1 The Site Vice-President shall be responsible for overall activities of the site, while the Plant Manager shall be responsible for overall unit operation. The Site Vice-President and the Plant Manager shall delegate in writing the succession to this responsibility during his absence.

The Plant Manager or his designee shall approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affect nuclear safety.

- 5.1.2 The Shift ~~Operations Supervisor (SOS)~~ **Manager (SM)** shall be responsible for the control room command function. During any absence of the ~~SOS SM~~ from the control room while the unit is in MODE 1, 2, 3, or 4, an individual with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the ~~SOS SM~~ from the control room while the unit is in MODE 5 or 6, an individual with an active SRO license or Reactor Operator license shall be designated to assume the control room command function.
-

5.2 Organization (continued)

5.2.2 Unit Staff

The unit staff organization shall include the following:

- a. A non-licensed operator shall be assigned to each reactor containing fuel and an additional non-licensed operator shall be assigned for each control room from which a reactor is being operating in MODES 1, 2, 3, or 4. ~~With both units shutdown or defueled, a total of three non-licensed operators are required.~~
- ~~b. At least one licensed Reactor Operator (RO) shall be present in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3, or 4, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room.~~
- e b. The shift crew composition may be less than the minimum requirements of 10 CFR 50.54(m) (2) (i) and Specifications 5.2.2.a and 5.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absences of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
- d c. A radiological controls technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.

Insert 1 ~~e. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety related functions (e.g., licensed SROs, licensed ROs, radiological controls technicians, auxiliary operators, 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 an 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.~~

(continued)

5.2 Organization

5.2.2 Unit Staff (continued)

- ~~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,~~
- ~~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.~~

~~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.~~

~~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. Routine deviation from the above guidelines is not authorized.~~

- ~~f e.~~ The Operations Superintendent shall have a valid SRO license on this unit.
- ~~g f.~~ ~~The Shift Technical Advisor (STA)~~ *An individual* shall provide advisory technical support to the ~~Shift Operations Supervisor (SOS)~~ *unit operations shift crew* in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~ *This individual* shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on shift (Generic Letter 86-04 dated 02/13/86).
-

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications for comparable positions, as specified in TVA Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A).

5.3.2 *For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54 (m).*

5.7 Procedures, Programs, and Manuals

5.7.2.3 Offsite Dose Calculation Manual (ODCM) (continued)

- c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

5.7.2.4 Primary Coolant Sources Outside Containment

This program provides controls to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to levels as low as practicable. The systems include Containment Spray, Safety Injection, Residual Heat Removal, Chemical and Volume Control, Reactor Coolant System Sampling, and Waste Gas. The program shall include the following:

- a. Preventive maintenance and periodic visual inspection requirements; and
- b. Integrated leak test requirements for each system at ~~refueling cycle intervals or less~~ **least once per 18 months.**

The provisions of SR 3.0.2 are applicable.

5.7.2.5 (removed from Technical Specifications)

5.7.2.6 (removed from Technical Specifications)

(continued)

5.7 Procedures, Programs, and Manuals (continued)

5.7.2.7 Radioactive Effluent Controls Program

This program conforms to 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 shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;
- b. Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas, conforming to 10 times the concentration values in 10 CFR 20.1001-20.2402, Appendix B, Table 2, Column 2;
- c. 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;
- d. 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 10 CFR 50, Appendix I;
- e. 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.
Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days;
- f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a period of 31 days would exceed 2% of the guidelines for the annual dose or dose commitment, conforming to 10 CFR 50, Appendix I;

(continued)

5.7 Procedures, Programs, and Manuals

5.7.2.7 Radioactive Effluent Controls Program (continued)

- g. 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~~ *in accordance with* the following:

Insert 2 _____ 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/yr to any organ,~~

- h. 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 10 CFR 50, Appendix I;
- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives > 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- j. 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 190.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the radioactive Effluent Controls Program surveillance frequency.

5.7.2.8 (removed from Technical Specifications)

5.7.2.9 Component Cyclic or Transient Limit

This program provides controls to track the FSAR, Section 5.2.1.5, cyclic and transient occurrences to ensure that components are maintained within the design limits.

(continued)

5.9 Reporting Requirements

5.9.2 Annual Radiological Environmental Operating Report (continued)

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. The report shall identify the TLD results that represent collocated dosimeters in relation to the NRC TLD program and the exposure period associated with each result. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

5.9.3 Radioactive Effluent Release Report

-----NOTE-----
A single submittal may be made for a multiple unit station. The submittal should combine sections 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.

The Radioactive Effluent Release Report covering the operation of the unit during the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. 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 consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.9.4 Monthly Operating Reports

Routine reports of operating statistics and shutdown experience, ~~including documentation of all challenges to the pressurizer power operated relief valves or pressurizer 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.

(continued)

5.0 ADMINISTRATIVE CONTROLS

~~5.11 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.~~

~~5.11.1 High Radiation Areas With Dose Rates Not Exceeding 1.0 rem/hour*~~

- ~~a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be breached only during periods of entry or exit.~~
- ~~b. Access to, and activities in, each such area shall be controlled by means of a Radiation Work Permit (RWP) or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.~~
- ~~c. Individuals qualified in radiation protection procedures (e.g. health physics technicians) 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 following plant radiation protection procedures for entry to, exit from, and work in such areas.~~
- ~~d. Each individual (whether alone or in a group) entering such an area shall possess:~~
 - ~~1. A radiation monitoring device that continuously displays radiation dose rates in the area ("radiation monitoring and indicating devices"), or~~
 - ~~2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm set point is reached ("alarming dosimeter"), with an appropriate alarm set point, 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~~

(continued)

~~5.11 High Radiation Area~~

~~5.11.1 High Radiation Areas With Dose Rates Not Exceeding 1.0 rem/hour,*
(continued)~~

~~4. A self-reading dosimeter and,~~

~~(a) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual at the work site, qualified in radiation protection procedures, equipped with a radiation monitoring and indicating device who is responsible for controlling personnel radiation exposure within the area, or~~

~~(b) 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.~~

~~e. Entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them.~~

~~5.11.2 High Radiation Areas With Dose Rates Greater Than 1.0 rem/hour,*
But Less Than 500 rads/hour**~~

~~a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked 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 operations supervisor or the health physics supervisor on duty.~~

~~2. Doors and gates shall remain locked except during periods of personnel entry or exit.~~

(continued)

5.11 High Radiation Area

~~5.11.2 High Radiation Areas With Dose Rates Greater Than 1.0 rem/hour,* But Less Than 500 rads/hour** (continued)~~

- ~~b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) 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 following plant radiation protection procedures for entry to, exit from, and work in such areas.~~
- ~~d. Each individual entering such an area shall possess:~~
 - ~~1. An alarming dosimeter with an appropriate alarm set point, 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 and,~~
 - ~~(a) Be under the surveillance, as specified in the RWP or equivalent, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring and indicating device who is responsible for controlling personnel exposure within the area, or~~
 - ~~(b) Be under the surveillance as specified in the RWP or equivalent, 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.~~

(continued)

~~5.11 High Radiation Area~~

~~5.11.2 High Radiation Areas With Dose Rates Greater Than 1.0 rem/hour,*
But Less Than 500 rads/hour** (continued)~~

~~e. Entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them.~~

~~f. Such individual areas that are within a larger area that is controlled as a high radiation area, where no enclosure exists for 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 but, shall be barricaded and conspicuously posted as a high radiation area, and a conspicuous, clearly visible flashing light shall be activated at the area as a warning device.~~

~~* At 30 centimeters (12 inches) from the radiation source or from any surface penetrated by the radiation.~~

~~** At 1 meter from the radiation source or from any surface penetrated by the radiation.~~

Inserts for WBN TS-02-08

Insert 1:

- d. Administrative procedures shall be developed and implemented to limit the working hours of personnel who perform safety related functions (e.g., licensed Senior Reactor Operators (SROs), licensed Reactor Operators (ROs), radiological controls technicians, auxiliary operators, 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.

Insert 2:

1. For noble gases: a dose rate ≤ 500 mrem/yr to the whole body and a dose rate ≤ 3000 mrem/yr to the skin, and
2. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with halflives greater than 8 days: a dose rate ≤ 1500 mrem/yr to any organ.

Insert 3:

5.11 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:

5.11.1 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 that includes specification of radiation dose rates in the immediate work area(s) 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 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.

5.11.2 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 during periods of personnel or equipment entry or exit.
- b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) 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 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 individual's, 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.