

September 16, 2011

TSTF-11-14
PROJ0753

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

SUBJECT: Transmittal of TSTF-533-T, Revision 0, "Remove COLR and PTLR Revision and Date Relocation Provisions Added by TSTF-363, -408, and -419"

REFERENCE: Letter from the Nuclear Regulatory Commission (NRC) to the Technical Specification Task Force (TSTF) "Implementation of Travelers TSTF-363, Revision 0, 'Revise Topical Report References in ITS 5.6.5, COLR [Core Operating Limits Report], TSTF-408, Revision 1, 'Relocation of LTOP [Low temperature Overpressure Protection] Enable Temperature and PORV [Power-Operated Relief Valve] Lift Setting to the PTLR [Pressure-Temperature Limits Report], And TSTF-419, Revision 0, 'Revise PTLR Definition and References in ISTS [Improved Standard Technical Specification] 5.6.6, RCS [Reactor Coolant System] PTLR'," dated August 4, 2011.

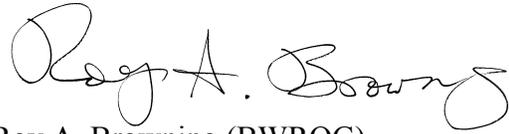
As discussed in the referenced letter, the NRC has withdrawn or modified their acceptance of three Travelers. At the February 9, 2011 public meeting between the TSTF and the NRC, the TSTF agreed to develop a TSTF Traveler to reflect the revised NRC acceptance and the TSTF Traveler will be incorporated into Revision 4 of the Improved Standard Technical Specifications (ISTS).

Enclosed for NRC information is TSTF-533-T, Revision 0, "Remove COLR and PTLR Revision and Date Relocation Provisions Added by TSTF-363, -408, and -419." TSTF-533-T is consistent with the NRC revised position described in the referenced letter and has been incorporated into the draft Revision 4 of the ISTS. Since TSTF-533-T merely reflects the NRC position in the referenced letter, the TSTF is not requesting NRC review or approval of TSTF-533-T.

Should you have any questions, please do not hesitate to contact us.



Norman J. Stringfellow (PWROG/W)



Roy A. Browning (BWROG)



William J. Steelman (PWROG/CE)



Wendy E. Croft (PWROG/B&W)

Enclosure

cc: Robert Elliott, Technical Specifications Branch, NRC
Michelle Honcharik, Licensing Processes Branch, NRC

Technical Specifications Task Force Improved Standard Technical Specifications Change Traveler

Remove COLR and PTLR Revision and Date Relocation Provisions Added by TSTF-363, -408, and -419

NUREGs Affected: 1430 1431 1432 1433 1434

Note: This "T" Traveler has been reviewed and approved by the Technical Specification Task Force and is made available as a template for plant-specific license amendments. This Traveler has not been reviewed and approved by the Nuclear Regulatory Commission. Any plant submitting a license amendment request to adopt this change should inform the industry contact listed below and copy the Technical Specification Task Force on their submittal letter.

Classification 4) NUREG Only Change

Recommended for CLIP?: No

Correction or Improvement: Unassigned

NRC Fee Status:

Benefit: (Unassigned)

See attached.

Revision History

OG Revision 0

Revision Status: Active

Revision Proposed by: NRC

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 12-Aug-11

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 16-Sep-11

TSTF Review Information

TSTF Received Date: 12-Aug-11 Date Distributed for Review 12-Aug-11

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved for Use Date: 16-Sep-11

NRC Review Information

NRC Received Date: 16-Sep-11

NRC Comments:

Provided to the NRC for information on September 16, 2011.

16-Sep-11

Affected Technical Specifications

5.6.3 CORE OPERATING LIMITS REPORT

5.6.4 REACTOR COOLANT SYSTEM (RCS) PRESSURE AND
TEMPERATURE LIMITS REPORT

16-Sep-11

1. SUMMARY DESCRIPTION

The Nuclear Regulatory Commission (NRC) approved TSTF-363-A, Revision 0, "Revise Topical Report references in ITS 5.6.5, COLR," on April 13, 2000. TSTF-363-A revises the requirements in Improved Standard Technical Specification (ISTS) 5.6.3, Core Operating Limits Report (COLR), to identify the referenced Topical Reports by number and title instead of by number, title, date, and NRC staff approval document. A requirement was added to specify the complete citation for each Topical Report in the licensee-issued COLR, including the report number, title, revision, date, and any supplements. Note that subsequent to the approval of TSTF-363, Specification 5.6.5 was renumbered Specification 5.6.3.

The NRC approved TSTF-408-A, Revision 0, "Relocation of LTOP Enable Temperature and PORV Lift Setting to the PTLR (CE NPSD-683)," on September 6, 2002. This Traveler, which is only applicable to the ISTS for Combustion Engineering plants (NUREG-1432), relocates two limits from the Technical Specifications to the Reactor Coolant System (RCS) Pressure and Temperature Limits Report (PTLR) and also revises the list of methodologies in Specification 5.6.4, "RCS PTLR," to allow referencing of NRC approved Topical Reports without reference to revision number and approval date consistent with the wording approved for the Core Operating Limits Report in TSTF-363. A requirement was added to specify the complete citation for each Topical Report in the licensee-issued PTLR, including the report number, title, revision, date, and any supplements.

The NRC approved TSTF-419-A, Revision 0, "Revise PTLR Definition and References in ISTS 5.6.6, RCS PTLR," on March 31, 2002. TSTF-419 is applicable to the Babcock & Wilcox, Westinghouse, Boiling Water Reactor (BWR)/4 and BWR/6 ISTS (NUREG-1430, -1431, -1433, and -1434). Among other changes, this Traveler revises the list of methodologies in Specification 5.6.4, "RCS PTLR," to allow referencing of NRC approved Topical Reports without reference to revision number and approval date consistent with the wording approved for the Core Operating Limits Report in TSTF-363. A requirement was added to specify the complete citation for each Topical Report in the licensee-issued PTLR, including the report number, title, revision, date, and any supplements. Note that subsequent to the approval of TSTF-408 and TSTF-419, Specification 5.6.6 was renumbered Specification 5.6.4.

In a letter dated August 4, 2011, the NRC stated they will no longer accept license amendment requests (LARs) to implement Technical Specification (TS) changes in accordance with TSTF-363-A. The NRC stated that they will no longer accept LARs to adopt the change to relocate the revision numbers and dates of NRC approved Topical Report references from Specification 5.6.4 to the licensee-issued PTLR. The other changes in TSTF-408 and TSTF-419 would continue to be considered in LARs.

In the August 4, 2011, letter, the NRC stated that maintaining a list of the methodologies in the TSs requires licensees to obtain NRC approval prior to editing the reference list. Among others, one reason that NRC approval is desired prior to editing the reference list is so that the NRC staff can review the methodology and ensure that it is applicable to the

facility of a given licensee. Additionally, the NRC staff can verify that the licensee has properly satisfied all implementation conditions and limitations associated with a given methodology. Because there is no inherent requirement to ensure that the implementation conditions and limitations associated with methodology revisions are maintained the same as previous revisions to the same methodology, or that the applicability of subsequent methodology revisions remains the same as earlier methodologies, the NRC staff determined that affording licensees the administrative flexibility to transition between or among methodology revisions was no longer appropriate.

The letter also stated that the NRC staff did not intend to backfit licensees that have these Travelers already in their TS. The NRC stated that there is not a substantial increase in the overall protection of the public health and safety to be derived from backfitting licensees that have already adopted these Travelers and a desire for additional clarity in the safety analysis is not indicative of an immediate safety concern. Therefore, backfitting could not be justified under Title 10 of the Code of Federal Regulations Section 50.109 because the safety benefit is not supported by the financial costs. The letter stated that the change in NRC position described in the August 4, 2011 letter would not impact plants that already have TSTF-363, TSTF-408 or TSTF-419, approved and implemented in their plant-specific TS.

The proposed change to Specifications 5.6.3, COLR, and 5.6.4, RCS PTLR, restores the requirement for the list of Topical Reports in the specifications to include the number, title, date, and NRC staff approval document unless the licensee has received prior NRC approval to relocate the Topical Report revision numbers and dates to licensee control. In that case, only the Topical Report number and title is listed in the Specification and the licensee-issued COLR or PTLR will contain the complete identification for each of the Technical Specification referenced Topical Reports (i.e., report number, title, revision, date, and any supplements).

2. DETAILED DESCRIPTION

Specification 5.6.3, "CORE OPERATING LIMITS REPORT (COLR)," Paragraph b, states:

"The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. The COLR will contain the complete identification for each of the Technical Specification referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]"

Paragraph b is proposed to be revised to state:

"The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the COLR will contain the complete identification for each of the Technical Specification referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]"

The first sentence of the second paragraph has been restored to the wording used before incorporation of TSTF-363. The remainder of the second paragraph provides guidance for licensees that have received approval of a LAR to adopt TSTF-363.

Specification 5.6.4, "Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT," Paragraph b, states:

"The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements).]"

The first sentence of the second paragraph has been restored to the wording used before incorporation of TSTF-408 and TSTF-419. The remainder of the second paragraph provides guidance for licensees that have received approval of a LAR to adopt TSTF-408 or TSTF-419.

The proposed change only affects the ISTS and will not be used to justify plant-specific license amendments. As stated in the August 4 letter, licensees that have received plant-specific approval for adoption of TSTF-363, TSTF-408, or TSTF-419 are unaffected by the NRC change in staff position described in the August 4 letter. Therefore, this Traveler does not include a model application or a regulatory evaluation.

3. TECHNICAL EVALUATION

The technical evaluation of the proposed changes was provided in the NRC August 4, 2011 letter to the Technical Specifications Task Force titled, "Implementation of Travelers TSTF-363, Revision 0, "Revise Topical Report References in ITS 5.6.5, COLR [Core Operating Limits Report]," TSTF-408, Revision 1, "Relocation of LTOP [Low temperature Overpressure Protection] Enable Temperature and PORV [Power-Operated Relief Valve] Lift Setting to the PTLR [Pressure-Temperature Limits Report]," and TSTF-419, Revision 0, "Revise PTLR Definition and References in ISTS [Improved Standard Technical Specification] 5.6.6, RCS [Reactor Coolant System] PTLR." A copy of the letter is included as Attachment 1. The NRC ADAMS Accession Number for the letter is ML110660285.

Attachment 1

NRC August 4, 2011 Letter to the TSTF

August 4, 2011

Technical Specifications Task Force (TSTF)
11921 Rockville Pike, Suite 100
Rockville, MD 20852

SUBJECT: IMPLEMENTATION OF TRAVELERS TSTF-363, REVISION 0, "REVISE TOPICAL REPORT REFERENCES IN ITS 5.6.5, COLR [CORE OPERATING LIMITS REPORT]," TSTF-408, REVISION 1, "RELOCATION OF LTOP [LOW-TEMPERATURE OVERPRESSURE PROTECTION] ENABLE TEMPERATURE AND PORV [POWER-OPERATED RELIEF VALVE] LIFT SETTING TO THE PTLR [PRESSURE-TEMPERATURE LIMITS REPORT]," AND TSTF-419, REVISION 0, "REVISE PTLR DEFINITION AND REFERENCES IN ISTS [IMPROVED STANDARD TECHNICAL SPECIFICATION] 5.6.6, RCS [REACTOR COOLANT SYSTEM] PTLR"

Dear Members of the TSTF:

The purpose of this letter is to inform you of the U.S. Nuclear Regulatory Commission (NRC) staff's plan for resolving issues related to the subject travelers. The NRC staff previously communicated concerns to you via letters dated November 2 and December 11, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML092151016 and ML093100498). Additionally, the plan outlined in this letter was discussed with you during a public meeting on February 9, 2011 (meeting summary is available in ADAMS at Accession No. ML110560630).

The NRC staff will no longer accept license amendment requests (LARs) to implement technical specification (TS) changes in accordance with Traveler TSTF-363. The standard TS (STS) in NUREGs-1430, -1431, -1432, -1433, and -1434 will be revised in Revision 4 to reflect the TS the way they were prior to approval of TSTF-363.

The NRC staff will continue to accept LARs to implement the TS changes in accordance with Travelers TSTF-408 and TSTF-419 with modification. Currently the STS show the full topical report or methodology citation as located in the PTLR. In order for NRC staff to approve LARs for these two travelers, the full topical report or methodology citation will need to be included in the TS, not in the PTLR. The STS in NUREGs-1430, -1431, -1432, -1433, and -1434 will be revised in Revision 4 to reflect this change.

The NRC staff understands that the inclusion of topical report or methodology citations in the COLR and PTLR afforded the industry flexibility and reduced the need for LARs associated with updated topical reports used during refueling. The NRC staff is willing to consider alternatives to the inclusion of the full citation in the TS, so long as the alternatives support the NRC staff's ability to protect the health and safety of the public and environment. However, until a mutually agreed upon alternative can be reached and approved, the full citations will need to be included in the TS for the reasons discussed below.

Maintaining a list of the methodologies in the TSs requires licensees to obtain NRC approval prior to editing the reference list. Among others, one reason that NRC approval is required prior

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to editing the reference list is so that the NRC staff can review the methodology and ensure that it is applicable to the facility of a given licensee. Additionally, the NRC staff can verify that the licensee has properly satisfied all implementation conditions and limitations associated with a given methodology. Because there is no inherent requirement to ensure that the implementation conditions and limitations associated with methodology revisions are maintained the same as previous revisions to the same methodology, or that the applicability of subsequent methodology revisions remains the same as earlier methodologies, the NRC staff finds that affording licensees the administrative flexibility to transition between or among methodology revisions is inappropriate.

The NRC staff does not intend to backfit licensees that have these travelers already in their TS. There is not a substantial increase in the overall protection of the public health and safety to be derived from backfitting licensees that have already adopted these travelers. A desire for additional clarity in the safety analysis is not indicative of an immediate safety concern. Therefore, backfitting would not be justified under Title 10 of the *Code of Federal Regulations* Section 50.109 because the safety benefit is not supported by the financial costs. As a result, these changes will not impact plants that already have TSTF-363, or previous versions of TSTF-408 or TSTF-419, approved and implemented in their plant-specific TS.

As discussed during the February 9, 2011, meeting with the TSTF, this situation is irregular in that the NRC staff has never changed the STS NUREGs without that change being made as a result of a traveler. Therefore, we agreed to provide an opportunity for the TSTF to submit travelers to make these changes to the STS. The travelers would need to be submitted in a timely fashion to allow for them to be used as part of the STS Revision 4 which is currently in process.

If you have any questions, please contact Michelle Honcharik at (301) 415-1774 or michelle.honcharik@nrc.gov.

Sincerely,

/RA/

John R. Jolicoeur, Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 753

cc: See next page

ADAMS Accession No: ML110660285

OFFICE	PLPB/PM	PLPB/LA	ITSB/BC	SRXB/BC
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OFFICE	OGC	PLPB/BC		
NAME	MSmith	JJolicoeur		
DATE	4/20/11	8/4/11		

OFFICIAL RECORD COPY

Technical Specifications Mark-ups

5.6 Reporting Requirements

5.6.3 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

[The individual specifications that address core operating limits must be referenced here.]

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the COLR will contain the complete identification for each of the TS referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.4 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT

- a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

[The individual specifications that address RCS pressure and temperature limits must be referenced here.]

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

5.6 Reporting Requirements

5.6.4 RCS PRESSURE AND TEMPERATURE LIMITS REPORT (continued)

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements).]

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

-----REVIEWER'S NOTE-----

The methodology for the calculation of the P-T limits for NRC approval should include the following provisions:

1. The methodology shall describe how the neutron fluence is calculated (reference new Regulatory Guide when issued).
2. The Reactor Vessel Material Surveillance Program shall comply with Appendix H to 10 CFR 50. The reactor vessel material irradiation surveillance specimen removal schedule shall be provided, along with how the specimen examinations shall be used to update the PTLR curves.
3. Low Temperature Overpressure Protection (LTOP) System lift setting limits for the Power Operated Relief Valves (PORVs), developed using NRC-approved methodologies may be included in the PTLR.
4. The adjusted reference temperature (ART) for each reactor beltline material shall be calculated, accounting for radiation embrittlement, in accordance with Regulatory Guide 1.99, Revision 2.
5. The limiting ART shall be incorporated into the calculation of the pressure and temperature limit curves in accordance with NUREG-0800 Standard Review Plan 5.3.2, Pressure-Temperature Limits.
6. The minimum temperature requirements of Appendix G to 10 CFR Part 50 shall be incorporated into the pressure and temperature limit curves.
7. Licensees who have removed two or more capsules should compare for each surveillance material the measured increase in reference temperature (RT_{NDT}) to the predicted increase in RT_{NDT} ; where the predicted increase in RT_{NDT} is based on the mean shift in RT_{NDT} plus the two standard deviation value ($2\sigma_{\Delta}$) specified in Regulatory Guide 1.99, Revision 2. If the measured value exceeds the predicted value (increase in $RT_{NDT} + 2\sigma_{\Delta}$), the licensee

5.6 Reporting Requirements

5.6.3 CORE OPERATING LIMITS REPORT

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

[The individual specifications that address core operating limits must be referenced here.]

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~ COLR will contain the complete identification for each of the TS referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.4 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT

- a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, and hydrostatic testing, LTOP arming, and PORV lift settings as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

[The individual specifications that address RCS pressure and temperature limits must be referenced here.]

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

5.6 Reporting Requirements

5.6.4 RCS PRESSURE AND TEMPERATURE LIMITS REPORT (continued)

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~ PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements) .]

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

-----REVIEWER'S NOTE-----

The methodology for the calculation of the P-T limits for NRC approval should include the following provisions:

1. The methodology shall describe how the neutron fluence is calculated (reference new Regulatory Guide when issued).
2. The Reactor Vessel Material Surveillance Program shall comply with Appendix H to 10 CFR 50. The reactor vessel material irradiation surveillance specimen removal schedule shall be provided, along with how the specimen examinations shall be used to update the PTLR curves.
3. Low Temperature Overpressure Protection (LTOP) System lift setting limits for the Power Operated Relief Valves (PORVs), developed using NRC-approved methodologies may be included in the PTLR.
4. The adjusted reference temperature (ART) for each reactor beltline material shall be calculated, accounting for radiation embrittlement, in accordance with Regulatory Guide 1.99, Revision 2.
5. The limiting ART shall be incorporated into the calculation of the pressure and temperature limit curves in accordance with NUREG-0800 Standard Review Plan 5.3.2, Pressure-Temperature Limits.
6. LTOP arming temperature limit development methodology.
7. The minimum temperature requirements of Appendix G to 10 CFR Part 50 shall be incorporated into the pressure and temperature limit curves.

5.6 Reporting Requirements

5.6.3 CORE OPERATING LIMITS REPORT

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

[The individual specifications that address core operating limits must be referenced here.]

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~ COLR will contain the complete identification for each of the TS referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]

- c. The core operating limits shall be determined assuming operation at RATED THERMAL POWER such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.4 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT

- a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

[The individual specifications that address RCS pressure and temperature limits must be referenced here.]

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

5.6 Reporting Requirements

5.6.4 RCS Pressure and Temperature Limits Report (continued)

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~-PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements).]

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

-----REVIEWER'S NOTE-----

The methodology for the calculation of the P-T limits for NRC approval should include the following provisions:

1. The methodology shall describe how the neutron fluence is calculated (reference new Regulatory Guide when issued).
2. The Reactor Vessel Material Surveillance Program shall comply with Appendix H to 10 CFR 50. The reactor vessel material irradiation surveillance specimen removal schedule shall be provided, along with how the specimen examinations shall be used to update the PTLR curves.
3. Low Temperature Overpressure Protection (LTOP) System lift setting limits for the Power Operated Relief Valves (PORVs), developed using NRC-approved methodologies may be included in the PTLR.
4. The adjusted reference temperature (ART) for each reactor beltline material shall be calculated, accounting for radiation embrittlement, in accordance with Regulatory Guide 1.99, Revision 2.
5. The limiting ART shall be incorporated into the calculation of the pressure and temperature limit curves in accordance with NUREG-0800 Standard Review Plan 5.3.2, Pressure-Temperature Limits.
6. The minimum temperature requirements of Appendix G to 10 CFR Part 50 shall be incorporated into the pressure and temperature limit curves.

5.6 Reporting Requirements

5.6.3 CORE OPERATING LIMITS REPORT

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

[The individual specifications that address core operating limits must be referenced here.]

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~ COLR will contain the complete identification for each of the Technical Specification referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.4 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT

- a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

[The individual specifications that address RCS pressure and temperature limits must be referenced here.]

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

5.6 Reporting Requirements

5.6.4 RCS PRESSURE AND TEMPERATURE LIMITS REPORT (continued)

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~-PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements).]

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

-----REVIEWER'S NOTE-----

The methodology for the calculation of the P-T limits for NRC approval should include the following provisions:

1. The methodology shall describe how the neutron fluence is calculated (reference new Regulatory Guide when issued).
2. The Reactor Vessel Material Surveillance Program shall comply with Appendix H to 10 CFR 50. The reactor vessel material irradiation surveillance specimen removal schedule shall be provided, along with how the specimen examinations shall be used to update the PTLR curves.
3. Low Temperature Overpressure Protection (LTOP) System lift setting limits for the Power Operated Relief Valves (PORVs), developed using NRC-approved methodologies may be included in the PTLR.
4. The adjusted reference temperature (ART) for each reactor beltline material shall be calculated, accounting for radiation embrittlement, in accordance with Regulatory Guide 1.99, Revision 2.
5. The limiting ART shall be incorporated into the calculation of the pressure and temperature limit curves in accordance with NUREG-0800 Standard Review Plan 5.3.2, Pressure-Temperature Limits.
6. The minimum temperature requirements of Appendix G to 10 CFR Part 50 shall be incorporated into the pressure and temperature limit curves.

5.6 Reporting Requirements

5.6.3 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

[The individual specifications that address core operating limits must be referenced here.]

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the staff Safety Evaluation Report for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~ COLR will contain the complete identification for each of the Technical Specification referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).]

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.4 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT

- a. RCS pressure and temperature limits for heatup, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

[The individual specifications that address RCS pressure and temperature limits must be referenced here.]

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

5.6 Reporting Requirements

5.6.4 RCS PRESSURE AND TEMPERATURE LIMITS REPORT (continued)

[Identify the Topical Report(s) by number, title, date, and NRC staff approval document number and title or identify the NRC Safety Evaluation for a plant specific methodology by NRC letter and date. Licensees that have received prior NRC approval to relocate Topical Report revision numbers and dates to licensee control need only list the number and title of the Topical Report and the ~~The~~-PTLR will contain the complete identification for each of the TS referenced Topical Reports used to prepare the PTLR (i.e., report number, title, revision, date, and any supplements).]

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

-----REVIEWER'S NOTE-----

The methodology for the calculation of the P-T limits for NRC approval should include the following provisions:

1. The methodology shall describe how the neutron fluence is calculated (reference new Regulatory Guide when issued).
2. The Reactor Vessel Material Surveillance Program shall comply with Appendix H to 10 CFR 50. The reactor vessel material irradiation surveillance specimen removal schedule shall be provided, along with how the specimen examinations shall be used to update the PTLR curves.
3. Low Temperature Overpressure Protection (LTOP) System lift setting limits for the Power Operated Relief Valves (PORVs), developed using NRC-approved methodologies may be included in the PTLR.
4. The adjusted reference temperature (ART) for each reactor beltline material shall be calculated, accounting for radiation embrittlement, in accordance with Regulatory Guide 1.99, Revision 2.
5. The limiting ART shall be incorporated into the calculation of the pressure and temperature limit curves in accordance with NUREG-0800 Standard Review Plan 5.3.2, Pressure-Temperature Limits.
6. The minimum temperature requirements of Appendix G to 10 CFR Part 50 shall be incorporated into the pressure and temperature limit curves.