

NUCLEAR REGULATORY COMMISSION

**Notice of Availability of Model Application Concerning  
Technical Specification Improvement To Revise Containment Isolation Valve  
Completion Times (TSTF-498, Revision 1, for Babcock & Wilcox plants)**

**AGENCY:** Nuclear Regulatory Commission

**ACTION:** Notice of Availability

**SUMMARY:** Notice is hereby given that the staff of the Nuclear Regulatory Commission (NRC) has prepared a model safety evaluation (SE) relating to the modification of technical specification (TS) 3.6.3, Containment Isolation Valves associated with implementation of BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change." The NRC staff has also prepared a model license amendment request and a model no-significant-hazards consideration (NSHC) determination relating to this matter. The purpose of these models is to permit the NRC to efficiently process amendments that propose to modify TS Completion Times (CTs) for CIVs. Licensees of nuclear power reactors to which the models apply can then request amendments after confirming the applicability of the SE and NSHC determination to their reactors. Licensees of nuclear power reactors to which the model applies may request amendments using the model application.

**DATES:** The NRC staff issued a Federal Register (FR) notice (73 FR 6529-6537; February 4, 2008), which provided an opportunity for comment on a model SE, model application, and model NSHC determination relating to the CT extension for TS actions related to inoperable CIVs at Babcock & Wilcox (B&W) plants. Similarly, the NRC staff herein provides a revised model SE, revised model LAR, and model NSHC determination incorporating changes based on the public comments received. The NRC staff can most efficiently consider applications based on the

model LAR, which references the model SE, if the LAR is submitted within one year of this Federal Register Notice.

**FOR FURTHER INFORMATION CONTACT:** Robert Elliott, Mail Stop: O-12H2, Technical Specifications Branch, Division of Inspection & Regional Support, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone 301-415-8585.

**SUPPLEMENTARY INFORMATION:**

**Background**

This notice involves the modification of TS Containment Isolation Valve Completion Times. This change was proposed for incorporation into the standard technical specifications by the Owners Groups participants in the Technical Specification Task Force (TSTF) and is designated TSTF-498.

[NOTE: This notice was published in the NRC's Federal Register (Vol. 73 FR 6529-6537, dated 02/04/2008) as "Notice of Opportunity to Comment" stating that the subject TSTF is available for adoption using the NRC's Consolidated Line Item Improvement Process (CLIIP). The NRC has determined that this TSTF does not qualify for the CLIIP process.]

Those licensees opting to apply for the subject change to TSs are responsible for reviewing the staff's evaluation, referencing the applicable technical justifications, and providing any necessary plant-specific information. Each amendment application made in response to the notice of availability will be processed and noticed in accordance with applicable rules and NRC procedures. Note that containment isolation valve (CIV) configurations and extended completion times (CTs) not specifically evaluated by TR BAW-2461, or non-bounding risk parameter values outside the scope of the TR, will require NRC staff's review and licensee development of the specific penetrations and related justifications for the proposed CTs.

TSTF-498 can be viewed on the NRC's web page at <http://www.nrc.gov/reactors/operating/licensing/techspecs.html>.

### **Applicability**

The staff is requesting that the methodology for assessing large early release frequency (LERF) and incremental conditional large early release probability (ICLERP) are to be documented in the plant-specific application as a regulatory commitment (i.e., included in the licensee's commitment tracking system in accordance with NEI 99-04, Revision 0, "Guidelines for Managing NRC Commitment Changes") (Reference 5) in the licensees' plant-specific applications referencing TR BAW-2461-A. The staff is requesting this regulatory commitment because a licensee's implementation of Regulatory Guide (RG) 1.177 Tier 3 guidelines generally implies the assessment of risk with respect to core damage frequency (CDF). However, the proposed containment isolation valve (CIV) completion time (CT) impacts containment isolation and consequently LERF and ICLERP, as well as CDF. Because the extended CIV CTs are also based on the LERF and ICLERP metrics, the management of risk in accordance with 10 CFR 50.65(a)(4) for these extended CIV CTs must also assess LERF and ICLERP.

### **Public Notices**

The staff issued a Federal Register Notice (73 FR 6529-6537, February 4, 2008) that requested public comment on the NRC's pending action to revise the TS completion times for selected CIVs at B&W plants as proposed in TSTF-498, Revision 1. TSTF-498, Revision 1, may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records are accessible electronically from the ADAMS Public Library component on the NRC Web site, (the Electronic Reading Room) at <http://www.nrc.gov/reading-rm/adams.html>.

In response to the notice soliciting comments from interested members of the public about the proposed changes to TS regarding CIV completion times, the staff received one set of

comments (from the TSTF Owners Groups, representing licensees). The specific comments are provided and discussed below. Note that some of the public comments pertain to the NRC's CLIP process. As stated previously, the NRC has determined that the subject TSTF does not qualify for the CLIP process.

1. **Comment:** Model SE, Section 2.0, "Regulatory Evaluation," second paragraph, of the

proposed Safety Evaluation states, "Therefore, the NRC staff must be able to conclude that there is reasonable assurance that the safety functions affected by the proposed TS CT changes will be performed in accordance with the design basis accidents (DBAs) identified in Chapter 15 of the licensee's final safety analysis report (FSAR)."

The TSTF disagrees with the technical accuracy of this statement. The Technical Specification Limiting Conditions for Operation (LCOs) are based on providing "reasonable assurance that the safety functions...will be performed in accordance with the design basis accidents (DBAs) identified in Chapter 15 of the licensee's final safety analysis report (FSAR)." When an LCO is not met, the Required Actions are required to be followed within the specified Completion Times. By definition, when an LCO is not met, the safety functions cannot be performed as identified in Chapter 15 of the FSAR. We recommend that the sentence be deleted. This sentence is unnecessary as it only expands on a previous statement that there must be reasonable protection of public health and safety during the proposed Completion Times.

**Response:** The NRC agrees with the comment and the referenced sentence has been deleted. Additionally, wording has been added which describes the function of CTs.

2. **Comment:** Section 3.2 of the Model Application, "Verification and Commitments," first paragraph, of the model application states, "[LICENSEE] verifies the applicability of TSTF-498, Revision 1, to [PLANT], and commits to adopting the requirements specified in BAW-2461-A which includes the following Limitations and Conditions specified in

Section 4.1, Staff Findings and Conditions and Limitations, of the NRC's Safety Evaluation for BAW-2461 (ML072330227)." The section then repeats the eleven conditions in the NRC's Safety Evaluation for BAW-2461.

This approach is inconsistent with previous CLIP model applications and other license amendments that are based on the technical justification provided in a Topical Report. Licensees do not typically repeat, verbatim, conditions on NRC approval of a Topical Report in a license amendment request. Furthermore, the proposed text adds no value as it states the conditions without addressing how the conditions are satisfied by the license amendment request.

The TSTF recommends that the quoted sentence, above, be revised to delete the word "following" in the phrase "the following Limitations and Conditions," and that the listing of the eleven conditions be removed from the model application.

We recommend that the discussion of the eleven conditions in the model Safety Evaluation be expanded to include a discussion of how each Limitation and Condition is addressed.

- For those Limitations and Conditions that require verification of the applicability of information in the Topical Report and the Safety Evaluation (i.e., Conditions 1, 2, 3, 4, 5, 7, 9, 10, 11), the revised sentence provides the necessary affirmative statement.
- For those Limitations and Conditions addressed by the Technical Specification provisions in TSTF-498 (i.e., Condition 4, bullets 1 and 3, Condition 6), the model Safety Evaluation should discuss how the Condition is satisfied by the proposed Technical Specification requirements.
- For those Limitations and Condition that state that the licensee must discuss a topic in their submittal (i.e., Conditions 5, 8), either an affirmative statement should be added to the model application confirming that the Limitation and Condition is met or guidance

should be provided on what information must be included. Note that Limitation and Condition 5 is addressed below by a proposed commitment.

Particular attention should be paid to ensuring that the model application, when used as the basis for a plant-specific license amendment request, can be processed by the NRC under the CLIIP.

**Response:** The NRC agrees with the comment that the current wording which repeats the Limitations and Conditions from the staff's Safety Evaluation for Topical Report BAW-2461-A does not address how the conditions are satisfied. The model application has been revised to require a specific verification by the licensee that each of the 11 Limitations and Conditions have been met. This change ensures that each licensee adopting TSTF-498 has met all the Limitations and Conditions without relying exclusively on cross-referencing another document. Additionally, Limitation and Condition #3, as specified in Section 3.2, Verification and Commitments, of the Model Application has been revised such that the specific details describing what must be submitted in the application regarding external events, fire risk and seismic evaluations has been deleted. This was necessary to maintain consistency with the staff's resolution of comments on the draft safety evaluation for TR BAW-2461 by the Pressurized Water Reactor Owners Group (PWROG) (ADAMS ML072330227). Furthermore, the word "following" has been deleted from the phrase "the following Limitations and Conditions," since it is no longer required.

3. **Comment:** Section 4, "Environmental Evaluation," of the model application states that the NRC staff's environmental evaluation is applicable and is submitted as an attachment to the application. Submitting a copy of the NRC staff's environmental evaluation as an attachment to the license amendment request is inconsistent with previous CLIIP items and serves no purpose since the amendment request has already stated that the environmental evaluation is applicable.

The TSTF recommends that Section 4 be revised to be consistent with earlier CLIP model applications, similar to, “[LICENSEE] has reviewed the environmental evaluation included in the safety evaluation (SE) published on [DATE]([ ] FR [ ]) as part of the CLIP Notice of Availability. [LICENSEE] has concluded that the staff’s findings presented in that evaluation are applicable to [PLANT, NO.] and the evaluation is hereby incorporated by reference for this application.

**Response:** The NRC disagrees with the comment and the model application has been revised to clearly state that the Environmental Evaluation must be attached to the amendment request to satisfy the requirements of 10 CFR 50.91(a). Additionally, Section 3.1, No Significant Hazards Determination (NSHD), has been revised to state that the NSHD must be attached to the amendment request to meet the requirements of 10 CFR 50.91(a).

4. **Comment:** Attachment 4, “List of Regulatory Commitments,” contains an example table with no commitments listed. This is inconsistent with other CLIP model applications, which list any needed commitments. By not specifying whether any commitments are needed or what those commitments might be, the NRC is making it unlikely that any application submitted following the model application can be processed by the NRC under the CLIP. The TSTF identified the following commitments that are appropriate to include in the model application. This is consistent with previous CLIP model applications for risk informed Completion Times and with the proposed Safety Evaluation.

- [LICENSEE] commits to implement Bases consistent with the Bases provided in TSTF-498 under the Technical Specification Bases Control Program with a Due Date concurrent with the implementation of a license amendment based on TSTF-498.

- [LICENSEE] commits to implementing a methodology for assessing the effect on large early release frequency (LERF) and incremental conditional large early release probability (ICLERP) when utilizing the extended CIV CTs in the program for managing risk in accordance with 10 CFR 50.65(a)(4) with a Due Date concurrent with the implementation of a license amendment based on TSTF-498.
- [LICENSEE] commits to the guidance of NUMARC 93-01, Revision 2, Section 11, which provides guidance and details on the assessment and management of risk during maintenance as an ongoing commitment.

**Response:** The NRC agrees with the comment with the exception of the first commitment concerning bases implementation. The bases are required to be submitted per the 10CFR50.36 (a) criteria. The 10CFR50.36 (a) states that a summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the technical specifications. After the NRC approves the Technical Specifications, the licensee can revise bases under its Bases Control Program or/and 10CFR50.59 process. The remaining suggested commitments have been added to the model application. Additionally, as stated before, this is not a CLIP model application.

Additional changes to the proposed Safety Evaluation:

- Editorial changes have been made to correct spelling and grammar errors.
- Wording has been removed from the Applicability statement related to the requirement for licensees to submit Technical Specification Bases along with the application. This statement was unnecessary since 10 CFR 50.36(a) requires the application for a Technical Specification change to include Technical Specification Bases.
- Per the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (58 FR 39132-39134, July 22, 1993), the

Commission expects improved Bases to accompany requests for improved Technical specifications. Safety Evaluation Section 3.0, Technical Evaluation, has been revised to clarify that the TS Bases are not part of the Technical Specifications but must be submitted as required by 10 CFR 50.36(a).

- Wording has been added to the Summary that states the changes are consistent with the staff's Safety Evaluation for BAW-2461-A and are therefore acceptable.

Dated at Rockville, Maryland, this 5<sup>th</sup> day of January 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Robert B. Elliott, Chief  
Technical Specifications Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

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Dated at Rockville, Maryland, this 5<sup>th</sup> day of January 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Robert B. Elliott, Chief  
 Technical Specifications Branch  
 Division of Inspection and Regional Support  
 Office of Nuclear Reactor Regulation

**ADAMS Accession Number: ML080720456**

**ADAMS Template: ADM-0-12**

OFFICE	ITSB:DIRS	ADES:DRA	SC:ADES:DRA	ITSB:DIRS	OGC
NAME	TCKolb	CKDoutt	MPRubin	RB Elliott	NLO
DATE	3/12/2008	3/27/2008	4/7/2008	01/5/2009	12/29/08

**OFFICIAL RECORD COPY**

**THE FOLLOWING EXAMPLE OF AN APPLICATION WAS PREPARED BY THE NRC STAFF .  
THE MODEL PROVIDES THE EXPECTED LEVEL OF DETAIL AND CONTENT FOR AN  
APPLICATION TO REVISE TECHNICAL SPECIFICATIONS REGARDING RISK-INFORMED  
JUSTIFICATION FOR CONTAINMENT ISOLATION VALVE ALLOWED OUTAGE TIME  
CHANGE . LICENSEES REMAIN RESPONSIBLE FOR ENSURING THAT THEIR ACTUAL  
APPLICATION FULFILLS THEIR ADMINISTRATIVE REQUIREMENTS AS WELL AS  
NUCLEAR REGULATORY COMMISSION REGULATIONS.**

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

SUBJECT: PLANT NAME  
DOCKET NO. 50-  
APPLICATION FOR TECHNICAL SPECIFICATION CHANGE REGARDING RISK  
-INFORMED JUSTIFICATION FOR CONTAINMENT ISOLATION VALVE  
ALLOWED OUTAGE TIME CHANGE

Dear Sir/Madam:

In accordance with the provisions of 10 CFR 50.90 [LICENSEE] is submitting a request for an amendment to the technical specifications (TS) for [PLANT NAME, UNIT NOS.].

The proposed amendment would modify TS requirements for containment isolation valve (CIV) allowed outage time changes with implementation of BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change."

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing TS pages marked up to show the proposed change. Attachment 3 provides revised (clean) TS pages. Attachment 4 provides a summary of the regulatory commitments made in this submittal. Attachment 5 provides the proposed TS Bases changes. Attachment 6 provides No Significant Hazards Consideration Determination. Attachment 7 provides Environmental Evaluation.

[LICENSEE] requests approval of the proposed License Amendment by [DATE], with the amendment being implemented [BY DATE OR WITHIN X DAYS].

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated [STATE] Official.

I declare [or certify, verify, state] under penalty of perjury that the foregoing is true and correct.

Executed on [date] [Signature]

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER]

Sincerely,

[Name, Title]

Attachments: 1. Description and Assessment  
2. Proposed Technical Specification Changes  
3. Revised Technical Specification Pages  
4. Regulatory Commitments  
5. Proposed Technical Specification Bases  
6. No Significant Hazards Consideration Determination  
7. Environmental Evaluation

cc: NRC Regional Office  
NRC Resident Inspector

## **ATTACHMENT 1 – Description and Assessment**

### **1.0 DESCRIPTION**

The proposed amendment would modify TS requirements for containment isolation valve allowed outage times associated with implementation of BAW-2461-A, “Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change.”

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) STS change TSTF-498, Revision 1, (ADAMS Accession No. ML080280275). The *Federal Register* notice published on [DATE] announced the availability of this TS improvement.

### **2.0 ASSESSMENT**

#### **2.1 Applicability of Published Safety Evaluation**

[LICENSEE] has reviewed the safety evaluation dated [DATE]. This review included a review of the NRC staff’s evaluation, as well as the supporting information provided to support TSTF-498, Revision 1. [LICENSEE] has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to [PLANT, UNIT NOS.] and justify this amendment for the incorporation of the changes to the [PLANT NAME, UNIT NOS.] TS.

#### **2.2 Optional Changes and Variations**

[LICENSEE] is not proposing any variations or deviations from the TS changes described in TSTF-498, Revision 1, and the NRC staff’s model safety evaluation dated [DATE].

### **3.0 REGULATORY ANALYSIS**

#### **3.1 No Significant Hazards Consideration Determination**

[LICENSEE] has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the *Federal Register* [DATE]([ ] FR [ ]). [LICENSEE] has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to [PLANT NAME, UNIT NOS.] and is provided as an attachment to this amendment request which satisfies the requirements of 10 CFR 50.91(a).

#### **3.2 Verification and Commitments**

As discussed in the notice of availability published in the *Federal Register* on [DATE] for this TS improvement, [LICENSEE] verifies the applicability of TSTF-498, Revision 1, to [PLANT NAME, UNIT NOS.], and commits to adopting the requirements specified in BAW-2461-A. Additionally, [LICENSEE] verifies that each of the Limitations and Conditions specified in Section 4.1, Staff Findings and Conditions and Limitations, of the NRC’s Safety Evaluation for BAW-2461 (ML072330227) as noted below for items (1) through (11), also apply.

- 1) Based on TR BAW-2461, the CIV methodology, PRA parameters, configurations, and data used to evaluate an extended CIV CT to 168 hours is limited to the following plants:
  - Davis-Besse
  - Oconee Units 1, 2, and 3
  - Crystal River 3

Other licensees of B&W designed PWRs requesting to use the TR methodology must provide the same level of information provided by these demonstration plants to ensure that TR BAW-2461 is applicable to their plant.

[LICENSEE] confirms that the information provided supports the applicability of TR BAW-2461 to be used to evaluate an extended CIV CT to 168 hours.

- 2) Because not all penetrations have the same impact on  $\Delta$ CDF,  $\Delta$ LERF, ICCDP, or ICLERP, verify the applicability of TR BAW-2461 to the specific plant, including verification that: (a) the CIV configurations for the specific plant match the configurations in TR BAW-2461, and (b) the risk-parameter values used in TR BAW-2461, including the sensitivity studies contained in the RAIs, are representative or bounding for the specific plant. Any additional CIV configurations, CT extensions, or non-bounding risk parameter values not evaluated by TR BAW-2461 should be addressed in the plant-specific analyses. [Note that CIV configurations and extended CTs not specifically evaluated by TR BAW-2461, or non-bounding risk parameter values outside the scope of the TR, will require NRC staff review and licensee development of the specific penetrations and related justifications for the proposed CTs]. [LICENSEE] confirms that TR BAW-2461 is applicable to [PLANT NAME, UNIT NOS.]. This confirmation includes verification that: (a) the CIV configurations for [PLANT NAME, UNIT NOS.] match the configurations in TR BAW-2461, and (b) the risk-parameter values used in TR BAW-2461, including the sensitivity studies contained in the RAIs, are representative or bounding for [PLANT NAME, UNIT NOS.].

[[LICENSEE] has provided additional information to support additional CIV configurations, CT extensions, or non-bounding risk parameter values not evaluated by TR BAW-2461].

- 3) Each licensee adopting TR BAW-2461 will need to confirm that the plant-specific risk assessment including both internal and external events is within the assumptions of TR BAW-2461 and the acceptance guidelines of RG 1.174 and 1.177. The licensee's application verifies that external event risk, including seismic, fires, floods, and high winds, either through quantitative or qualitative evaluation, is shown to not have an adverse impact on the conclusions of the plant-specific analysis for extending the CIV CTs.

[LICENSEE] confirms that the plant-specific risk assessment, both internal and external events, is within the assumptions of TR BAW-2461 and the acceptance guidelines of RG 1.174 and 1.177. Additionally, [LICENSEE] verifies that external event risk, including seismic, fires, floods, and high winds, either through quantitative or qualitative evaluation, is shown to not have an adverse impact on the conclusions of the plant-specific analysis for extending the CIV CTs.

- 4) For licensees adopting TR BAW-2461, confirmation should be provided that the Tier 2 and Tier 3 conclusions of the TR are applicable to the licensee's plant and that

plant-specific Tier 2 evaluations including CCF and risk-significant configurations including interfacing-system LOCA have been evaluated and included under Tier 2 and Tier 3 including the CRMP as applicable.

- The proposed 168-hour CIV CT will not be applied to CIVs in penetrations connected to the RCS that have two NC CIVs if there are no other valves between the RCS and the environment (i.e., low pressure piping, or opening) that may be used for backup isolation and cannot be confirmed closed. In that case, the operable CIV will be verified closed within the original 4-hour CT, thus satisfying the TS Required Action. See Section 3.3.4 of the staff's SE for BAW-2461. The specific penetrations where this is applicable or where interfacing-system LOCA is shown to be risk-significant (as determined by the plant-specific risk-informed process including plant-specific LOCA analysis) will be identified on a plant-specific basis prior to implementation of the proposed TS change. They will be listed explicitly in the proposed TS revision and the current CT will be retained. TR BAW-2461 stated that an interfacing-system LOCA is assumed to lead to core damage and large early release, the effectiveness of mitigation systems besides containment isolation is not considered significant. All failed open penetration flow paths with an RCS connection were assumed to have CDF and LERF contributions in TR BAW-2461. Licensees incorporating TR BAW-2461 will need to confirm the above assumption for their plant specific implementation of BAW-2461.
- The specific penetrations with CCF potential will be identified by the licensee on a plant-specific basis. Upon entry into TS LCO 3.6.3, Condition A, the utility will confirm that the redundant similarly-designed CIV has not been affected by the same failure mode as the inoperable CIV. This verification will be performed before entering into the extended portion of the CT (i.e., within 4 hours). The specific penetrations with CCF potential will be identified on a plant-specific basis and listed in a plant-specific TS document or other administrative source. See Section 3.4.1.2 of the staff's SE for BAW-2461.
- No action or maintenance activity is performed that will remove equipment that is functionally redundant to the inoperable CIV, including the redundant CIV(s) on the same penetration and support systems for the redundant CIV. See Section 3.3 of TR BAW-2461.
- No action or maintenance activity is performed that will significantly increase the likelihood of challenge to the CIVs. Challenges to the CIVs include DBAs that result in a release of radioactive material within containment (LOCA, main steam line break, and rod ejection accident). Also included is the removal of equipment from service that may cause a significant increase in the likelihood of core damage while in the proposed CT, which may increase the large early release via the inoperable CIV. See Section 3.4 of TR BAW-2461.
- No action or maintenance activity is performed that will remove equipment that supports success paths credited in the CT risk evaluation. This includes the other series valves, if any, credited in the risk assessment for RCS penetrations that otherwise would be risk-significant (i.e., interfacing-system LOCA). See Section 3.4 of TR BAW-2461.

[LICENSEE] confirms that the Tier 2 and Tier 3 conclusions of the TR are applicable to [PLANT NAME, UNIT NOS.] and that plant-specific Tier 2 evaluations including CCF and risk-significant configurations including interfacing-system LOCA have been evaluated

and included under Tier 2 and Tier 3 including the CRMP as applicable. Additionally, [LICENSEE] confirms that processes or procedures are in place to ensure the above items are met.

- 5) TR BAW-2461 was based on generic-plant characteristics. Each licensee adopting TR BAW-2461 must confirm plant-specific Tier 3 information in their individual submittals. The licensee must discuss conformance to the requirements of the maintenance rule (10 CFR 50.65(a)(4)), as they relate to the proposed CIV CTs and the guidance contained in NUMARC 93.01, Section 11, as endorsed by RG 1.182, including verification that the licensee's maintenance rule program, with respect to CIVs, includes a LERF/ICLERP assessment (i.e., CRMP). See Section 3.4.3 of the staff's SE for BAW-2461. [LICENSEE] has confirmed that the plant-specific Tier 3 information for [PLANT NAME, UNIT NOS.] is consistent with the generic plant characteristics used in TR BAW-2461. Also, [LICENSEE] has confirmed that [PLANT NAME, UNIT NOS.] conforms to the requirements of the maintenance rule (10 CFR 50.65(a)(4)), as they relate to the proposed CIV CTs and the guidance contained in NUMARC 93-01, Section 11, as endorsed by RG 1.182, including verification that the maintenance rule program, with respect to CIVs, includes a LERF and ICLERP assessment as part of the maintenance rule process.

- 6) TS LCO 3.6.3, Note 2, allows separate condition entry for each penetration flow path. Therefore, each licensee adopting TR BAW-2461 will address the simultaneous LCO entry of an inoperable CIV in separate penetration flow paths such that the proposed 168-hour CIV CT LCO will be limited to no more than one CIV at any given time. In addition, the licensee must confirm that its Tier 3 CRMP addresses simultaneous inoperable CIV LCOs (i.e., separate condition entry) such that the cumulative CIV risk, including LERF, are maintained consistent with the assumptions and conclusions of TR BAW-2461. See Section 3.4.1.2 of the staff's SE for BAW-2461.

[LICENSEE] confirms that the Technical Specification Required Actions as proposed by adoption of TSTF-498 provides a requirement to isolate all but one penetration flow path within 4 hours if there are two or more penetration flow paths with one CIV inoperable.

- 7) The licensee shall verify that the plant-specific PRA quality is acceptable with respect to its use for Tier 3 for this application in accordance with the guidelines given in RG 1.174 and as discussed in Section 3.4.1.1 of the staff's SE for BAW-2461.

[LICENSEE] confirms that [PLANT NAME, UNIT NOS.] PRA quality is acceptable with respect to its use for Tier 3 in accordance with the guidelines given in RG 1.174. Additionally, [LICENSEE] confirms additional information on PRA quality with respect to Tier 3 identified in Section 3.4.1.1 of the staff's SE for BAW-2461 has been provided.

- 8) With respect to past plant-specific license amendments or additional plant-specific applications for a TS change under NRC review that have not been incorporated into the baseline PRA used to evaluate the proposed change, the cumulative risk must be evaluated on a plant-specific basis consistent with the guidance given in RG 1.174, Section 2.2.6 and 3.3.2, and addressed in a licensee's plant-specific application. See Section 3.4.1.5 of the staff's SE for BAW-2461.

[LICENSEE] confirms that the cumulative risk has been evaluated for [PLANT NAME, UNIT NOS.] in accordance with guidance in RG 1.174, Section 2.2.6 and 3.3.2, with respect to past [PLANT NAME, UNIT NOS.] license amendments or additional [PLANT NAME, UNIT NOS.] applications for a TS change under NRC review that have not been incorporated into the baseline PRA used to evaluate the proposed change. This evaluation is provided in this application.

- 9) Closed systems inside and outside containment, which are considered to be containment isolation barriers, must meet the provisions outlined in NUREG-0800, Section 6.2.4, "Containment Isolation System." See Section 2.2 of the staff's SE for BAW-2461.
- 10) [LICENSEE] verifies that all closed systems inside and outside containment, which are considered to be containment isolation barriers, meet the provisions of NUREG-0800, Section 6.2.4, "Containment Isolation System."
- 10) With an extended CIV CT, the possibility exists that the CIV unavailability will be impacted. Depending on the penetration risk significance and the frequency and length of time of the CIV CT, the unavailability of the containment isolation function may also be impacted. Therefore, licensee's adopting TR BAW-2461 will need to establish an Implementation and monitoring program for CIVs, including performance criteria, on a plant-specific basis. See Sections 3.4.1.2 and 3.4.4 of the staff's SE for BAW-2461.

[LICENSEE] confirms that [PLANT NAME, UNIT NOS.] has established performance criteria and tracks maintenance unavailability in accordance with the maintenance rule program, 10 CFR 50.65.

- 11) The PWROG did not specifically address  $\Delta$ CDF and  $\Delta$ LERF in TR BAW-2461 regarding the acceptance guidelines of RG 1.174. The PWROG stated that it is not expecting that on line CIV preventive maintenance will increase with the proposed 168-hour CIV. To address this, licensee's adopting TR BAW-2461 will need to assess, on a plant-specific basis, the  $\Delta$ CDF and  $\Delta$ LERF acceptance guidance of RG 1.174 including the expected frequency of entering the proposed CT and the expected mean CT for CIV maintenance. See Section 3.4.1.2 of the staff's SE for BAW-2461.

[LICENSEE] has assessed the  $\Delta$ CDF and  $\Delta$ LERF acceptance guidance for [PLANT NAME, UNIT NOS.] in accordance with RG 1.174 and provided information pertaining to the expected frequency of entering the proposed CT and the expected mean CT for CIV maintenance. This assessment and information is provided in this application.

#### **4.0 ENVIRONMENTAL EVALUATION**

[LICENSEE] has reviewed the environmental evaluation included in the model safety evaluation dated [DATE]. [LICENSEE] has concluded that the proposed determination presented in the notice is applicable to [PLANT NAME, UNIT NOS.] and the determination is provided as an attachment to this amendment request to satisfy the requirements of 10 CFR 50.91(a).

#### **ATTACHMENT 2 – PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)**

#### **ATTACHMENT 3 – PROPOSED TECHNICAL SPECIFICATION PAGES**

**ATTACHMENT 4 – LIST OF REGULATORY COMMITMENTS**

The following table identifies those actions committed to by [LICENSEE] in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to [CONTACT NAME].

<b>REGULATORY COMMITMENTS</b>	<b>DUE DATE</b>
[LICENSEE] commits to implementing a methodology for assessing the effect on large early release frequency (LERF) and incremental conditional large early release probability (ICLERP) when utilizing the extended CIV CTs in the program for managing risk in accordance with 10 CFR 50.65(a)(4).	Concurrently with the implementation of a license amendment based on TSTF-498.
[LICENSEE] commits to the guidance of NUMARC 93-01, “Industry Guideline for monitoring the effectiveness of maintenance at nuclear power plants,” Revision 2, Section 11, which provides guidance and details on the assessment and management of risk during maintenance.	Ongoing commitment.

**ATTACHMENT 5 – PROPOSED CHANGES TO TECHNICAL SPECIFICATION BASES**

**ATTACHMENT 6 – NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION**

**ATTACHMENT 7 – ENVIRONMENTAL EVALUATION**

## **Proposed No Significant Hazards Consideration Determination**

*Description of Amendment Request:* [PLANT NAME, UNIT NOS.] requests adoption of an approved change to the standard technical specifications (STS) for Babcock and Wilcox (B&W) Plants (NUREG-1430) and plant specific technical specifications (TS), to allow modification of containment isolation valve completion times associated with implementation of BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change," dated October 2007. The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) STS Traveler, TSTF-498, Revision 1, "Risk-Informed Containment Isolation Valve Completion Times (BAW-2461)." The proposed change extends the Completion Times for containment penetration flow paths with one containment isolation valve inoperable from 4 hours up to 7 days for Babcock & Wilcox (B&W) NSSS plants. This change is applicable to containment penetrations with one or more containment isolation valves in which one containment isolation valve is inoperable [for reasons other than purge valve [shield building bypass] leakage not within limit]. The extended Completion Time is not applicable to containment isolation valves in the main steam lines or those identified by plant-specific analysis as having high risk significance for interfacing systems loss of coolant accidents (ISLOCAs) and the existing 4 hour Completion Time applies.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), an analysis of the issue of no significant hazards consideration is presented 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 revise the Completion Times for restoring an inoperable containment isolation valve (or isolating the affected penetration) within the scope of Topical Report BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change." The Completion Times are extended from 4 hours up to 7 days. Containment isolation valves are not accident initiators in any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased. Containment isolation valves control the extent of leakage from the containment following an accident. As such, containment isolation valves are instrumental in controlling the consequences of an accident. However, the consequences of any accident previously evaluated are no different during the proposed extended Completion Times than during the existing Completion Times. As a result, the consequences of any accident previously evaluated are not significantly increased. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the Proposed Change Create the Possibility of a New or Different Kind of Accident from any Accident Previously Evaluated?

Response: No

The proposed changes revise the Completion Times for restoring an inoperable containment isolation valve (or isolating the affected penetration) within the scope of Topical Report BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change." The proposed changes do not change the design, configuration, or method of operation of the plant. The proposed changes do not involve a physical alteration of the plant (no new or different kind of equipment will be installed). Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the Proposed Change Involve a Significant Reduction in the Margin of Safety?

Response: No

The proposed changes revise the Completion Times for restoring an inoperable containment isolation valve (or isolating the affected penetration) within the scope of Topical Report BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change." In order to evaluate the proposed Completion Time extensions, a probabilistic risk evaluation was performed as documented in Topical Report BAW-2461-A. The risk evaluation concluded that the proposed increase in the Completion Times does not result in an unacceptable incremental conditional core damage probability or incremental conditional large early release probability according to the guidelines of Regulatory Guide 1.177. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based upon the reasoning presented above and the previous discussion of the amendment request, the requested change does not involve a significant hazards consideration as set forth in 10 CFR 50.92(c).

## **Model Safety Evaluation**

U.S. Nuclear Regulatory Commission

Office of Nuclear Reactor Regulation

Technical Specification Task Force (TSTF) Change TSTF-498, Revision 1,

Modification of Technical Specification Containment Isolation Valve

Completion Times

### 1.0 INTRODUCTION

By letter dated December 20, 2006, (Reference 1) the Technical Specifications Task Force (TSTF), a joint owners group activity, submitted TSTF-498, "Risk-Informed Containment Isolation Valve Completion Times (BAW-2461)," Revision 0, for NRC review. By letter dated October 10, 2007, (Reference 2) the TSTF submitted Revision 1 to TSTF-498 based on responses to Requests for Additional Information (RAI) that resulted in not adopting certain provisions provided by BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change," (Reference 3). TSTF-498 is proposing to change NUREG 1430, "Standard Technical Specifications Babcock and Wilcox Plants," (BAW STS) Revision 3.0 (Reference 4), to generically implement containment isolation valve completion time (CT) changes associated with implementation of BAW-2461-A.

BAW-2461-A and TSTF-498 support extending CTs for CIVs in a penetration flow path with two [or more] containment isolation valves from 4 hours to 168 hours (7 days). The proposed change revises the TS for B&W Plants, NUREG-1430, Revision 3, Limiting Condition for Operation (LCO), Section 3.6.3, "Containment Isolation Valves," Condition A from 4 hours to 7 days. Additionally, a new Required Action is added (Required Action A.1) which requires verification that the Operable containment isolation valve in the penetration is not inoperable due to common cause failure and also results in Required Actions A.1 and A.2 being relabeled as

A.2 and A.3. No change is proposed by the Pressurized Water Reactor Owners Group (PWROG) for Condition B (reabeled Condition D) (i.e., a penetration flow path with two inoperable CIVs). A new Condition, Condition B, is added which is similar to the existing Condition A. It contains a 4 hour Completion Time to isolate the affected flow path and is only applicable to the containment isolation valves excluded from Condition A (e.g., containment isolation valves in the main steam lines or (as described in a Reviewer's Note) those identified by plant-specific analysis as having high risk significance for interfacing systems loss of coolant accidents (ISLOCAs). A new Condition, Condition C, is added which is applicable when two or more penetrations have one inoperable containment isolation valve. This Condition requires isolating all but one of the affected penetrations within 4 hours (the existing Completion Time for Condition A). This condition limits the 7 day Completion Time in Condition A to a single penetration. The extended Completion Time is not applicable to containment isolation valves in the main steam lines or those identified by plant-specific analysis as having high risk significance for ISLOCAs and the existing 4 hour Completion Time applies. BAW-2461-A is only applicable to Davis Besse, Oconee Nuclear Station Units 1, 2, and 3, and Crystal River Unit 3. Other licensees of B&W designed PWRs requesting to use the Topical Report (TR) methodology must provide the same level of information provided by these demonstration plants to ensure that TR BAW-2461-A is applicable to their plant. TSTF-498 will provide standardized wording in the B&W STS for plants implementing the changes specified in BAW-2461-A related to extending AOTs for applicable inoperable CIVs from 4 hours to 168 hours.

## 2.0 REGULATORY EVALUATION

In 10 CFR 50.36, the Commission established its regulatory requirements related to the content of TS. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings,

and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. However, the regulation does not specify the particular TSs to be included in a plant's license. TSTF-498 is proposing changes to the TSs that involve category 2 above. The LCOs are the lowest functional capability, or performance levels, of equipment required for safe operation of the facility. When an LCO of a nuclear reactor is not met, the licensee shall shut down the reactor, or follow any remedial actions permitted by the TS until the condition can be met.

Furthermore, the CTs specified in the TSs must be based on reasonable protection of the public health and safety. As set forth in 10 CFR 50.36, a licensee's TS must establish the LCOs that are the lowest functional capability or performance levels of equipment required for safe operation of the facility. This requirement includes CTs for structures, systems, and components (SSCs), such as CIVs. These CTs allow a certain amount of time to correct the condition for not meeting the LCO until the reactor must be brought to a condition which exits the mode of applicability, in most cases resulting in the reactor being shutdown.

The Maintenance Rule, 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires licensees to monitor the performance, or condition, of SSCs against licensee-established goals in a manner sufficient to provide reasonable assurance that SSCs are capable of fulfilling their intended functions. The implementation and monitoring program guidance of Regulatory Guide (RG) 1.174, Section 2.3, and RG 1.177, Section 3, states that monitoring performed in conformance with the Maintenance Rule can be used when such monitoring is sufficient for the SSCs affected by the risk-informed application.

In addition, 10 CFR 50.65(a)(4), as it relates to the proposed CIV CT extension, requires the assessment and management of the increase in risk that may result from the proposed maintenance activity.

Appendix A of 10 CFR Part 50, GDC-54, "Piping systems penetrating containment," requires those piping systems that penetrate primary containment be provided with leak detection, isolation, and containment capabilities having redundancy, reliability, and performance capabilities that reflect the importance to safety of isolating these piping systems.

Appendix A of 10 CFR Part 50, GDC-55, "Reactor coolant pressure boundary penetrating containment," requires that each line that is part of the reactor coolant pressure boundary and that penetrates the primary containment shall be provided with CIVs.

Appendix A of 10 CFR Part 50, GDC-56, "Primary containment isolation," requires that each line that connects directly to the containment atmosphere and penetrates the primary reactor containment shall be provided with CIVs.

The CIVs help ensure that adequate primary containment boundaries are maintained during and after accidents by minimizing potential pathways to the environment and help ensure that the primary containment function assumed in the safety analysis is maintained.

## 2.1 Proposed Change

TSTF-498 would make the following changes to the B&W STS contained in NUREG-1430 associated with TS 3.6.3 Containment Isolation Valves (CIVs):

- The proposed change adds a Reviewer's Note prior to Condition A which states "The Condition A Note should list the specific penetrations (if any) identified by the plant specific risk analysis as having high risk significance for an interfacing systems loss of coolant accident (ISLOCA)."
- The proposed change revises the Condition A NOTE to add "except containment isolation valves in the main steam lines and [ ]."
- The proposed change adds the new Required Action A.1, "Determine the OPERABLE containment isolation valve in the affected penetration is not inoperable due to common

cause failure” with a Completion Time of 4 hours. This new Required Action is connected by an AND statement to the other applicable Required Actions.

- The proposed change revises the previous Required Action A.1 to be A.2 with the completion time changed from 4 hours to 7 days.
- The proposed change revises the previous Required Action A.2 to be A.3.
- The proposed change adds a new Condition B for one or more penetration flow paths with one containment isolation valve inoperable [for reasons other than purge valve leakage not within limit] with a NOTE stating “Only applicable to penetration flow paths with two [or more] containment isolation valves in the main steam lines and [ ].” There is also a Reviewers NOTE similar to Condition A.
- The proposed change provides new Required Action B.1 to isolate the affected penetration flow path with a completion time of 4 hours AND Required Action B.2 to verify the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and Prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days for isolation devices inside containment. Furthermore, new Required Action B.2 has two notes which state (1) Isolation devices in high radiation areas may be verified by use of administrative means and (2) Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.
- The proposed change adds a new Condition C for two or more penetration flow paths with one containment isolation valve inoperable [for reasons other than Condition[s] [E and F]] with a NOTE stating “Only applicable to penetration flow paths with two [or more] containment isolation valves.
- The proposed change provides new Required Action C.1 to isolate all but one of the affected penetration flow paths by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange with a completion time of 4 hours.

- The proposed change revises the previous Condition B and Required Action B.1 to be new Condition D and Required Action D.1.
- The proposed change revises the previous Condition C and Required Action C.1 and C.2 to be new Condition E and Required Action E.1 and E.2.
- The proposed change revises the previous Condition D and Required Action D.1, D.2 and D.3 to be new Condition F and Required Action F.1, F.2 and F.3.
- The proposed change revises the previous reference to Required Action D.1 for performance of SR 3.6.3.6 within Required Action D.3 to Required Action F.1.
- The proposed change revises the previous Condition E and Required Action E.1 and E.2 to be new Condition G and Required Action G.1 and G.2.

TSTF-498 includes changes to the B&W STS Bases B 3.6.3 contained in NUREG-1430.

- Condition A has been modified by a Note indicating this Condition is only applicable to those penetration flow paths with two [or more] containment isolation valves. The Note also states that the Condition is not applicable to containment isolation valves in the main steam lines and [any specific penetrations identified by the plant-specific risk analysis as having high risk significance for an ISLOCA]. The previous discussion about the Note has been deleted. Additionally, a new Required Action A.1 has been added to determine that the OPERABLE containment isolation valve in the affected penetration is not inoperable due to a common cause failure with a completion time of 4 hours. The other Condition A Required Actions have been re-numbered and Required Action A.2 Completion Time has been changed from 4 hours to 7 days.
- The bases has been revised to update Required Action A.2 from 4 hours to 7 days based on an analysis of plant risk and the discussion on considering the time required to isolate the penetration and the relative importance of supporting containment OPERABILITY has been deleted.

- A new Condition B has been added with a Note indicating this Condition is only applicable to those penetration flow paths with two [or more] containment isolation valves that are containment isolation valves in the main steam lines or are [any specific penetrations identified by the plant-specific risk analysis as having high risk significance for an interfacing systems loss of coolant accident (ISLOCA)]. Condition B is entered if one containment isolation valve in one or more penetration flow paths is inoperable, [except for purge valve leakage not within limit]. The Bases describes Required Actions B.1 and B.2 Completion Times and Notes as specified in the TS section.
- A new Condition C as been added with a Note indicating this Condition is only applicable to penetration flow paths with two [or more] containment isolation valves. Condition C is entered if two or more penetration flow paths with one containment isolation valve inoperable [for reasons other than Condition[s] E [and F]]. The Bases describes the Required Action C.1 Completion Time to isolate all but one of the affected containment isolation valves within 4 hours.
- The bases discussion for Required Action D.1 has been updated to account for new Conditions B and C and have been added where applicable.
- Condition B and Required Action B.1 has been re-numbered to Condition D and Required Action D.1.
- Condition C and Required Action C.1 and C.2 have been re-numbered to Condition E and Required Action E.1 and E.2.
- Reference to BAW-2461-A has been added as Reference 6. Previous references 6, 7, and 8 have been re-numbered to references 7, 8, and 9. Applicable changes have been made throughout the Bases.
- Condition D and Required Action D.1, D.2 and D.3 have been re-numbered to Condition F and Required Action F.1, F.2 and F.3.

- Condition E and Required Action E.1 and E.2 have been re-numbered to Condition G and Required Action G.1 and G.2.

### 3.0 TECHNICAL EVALUATION

As stated previously, BAW-2461-A describes a method to revise the Completion Time for specific Conditions per Technical Specification 3.6.3, Containment Isolation Valves. The NRC approved BAW-2461 on August 29, 2007, for referencing in license applications to the extent specified and under the limitations and conditions stated in the topical report and Section 4.1 of the staff's safety evaluation (Reference 6). TSTF-498 is proposing changes to the B&W STS, NUREG 1430, which are in accordance with Topical Report BAW-2461-A and subject to the Limitations, Conditions and Regulatory Commitments specified in the staff Safety Evaluation. Any differences between TR BAW-2461-A Technical Specification examples and TSTF-498 proposed Technical Specifications have been evaluated and determined to be acceptable. BAW-2461-A, Table 2-1, Condition A note states "Only applicable to penetration flow paths with two [or more] containment isolation valves with the exception of containment isolation valves in the main steam lines [and list of specific penetrations (if any) identified by the plant-specific risk-informed process to have high risk significance for ISLOCA]." To be consistent with the ITS format and content rules, the Condition A Note was written as "Only applicable to penetration flow paths with two [or more] containment isolation valves except containment isolation valves in the main steam lines and [ ]." The Condition is modified by a Reviewer's Note which states, "The Condition A Note should list the specific penetrations (if any) identified by the plant-specific risk analysis as having high risk significance for an interfacing systems loss of coolant accident (ISLOCA)." This change is editorial and does not affect the application of the TS. The change in wording meets the requirements specified in BAW-2461-A and is therefore acceptable.

The July 5, 2006 Request for Additional Information (RAI) response to NRC Question 1 stated that the following action would be added as Required Action A.1 with a 4 hour Completion Time, "Verify that the redundant CIV on the same penetration is operable [applicable only if the redundant CIV has an operator and/or body type that is not diverse from the inoperable CIV depending on which parts are inoperable]." In TSTF-498, Required Action A.1 has a 4 hour Completion Time and states, "Determine the OPERABLE containment isolation valve in the affected penetration is not inoperable due to common cause failure." The wording was chosen to be consistent with LCO 3.8.1, Required Action B.3.1, regarding inoperable diesel generators. The discussion of what is required to be evaluated, "applicable only if the redundant CIV has an operator and/or body type that is not diverse from the inoperable CIV depending on which parts are inoperable," is placed in the Required Action A.1 Bases. Placing the detailed description of what is meant by common cause failure in the Bases is consistent with the ITS format and content rules. This change has been evaluated as a Revision to BAW-2461-A. TSTF-498 wording is equivalent to the proposed wording submitted as RAI response #1 and is consistent with NRC's Safety Evaluation for BAW-2461-A and is therefore acceptable.

B&W STS Required Action A.1 and A.2 are being revised to re-number these actions to A.2 and A.3. This is necessary to incorporate the new Required Action A.1 as described above. Additionally, the completion time for the new Required Action A.2 which states "isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured" is being revised from 4 hours to 7 days. This change is consistent with NRC's Safety Evaluation for BAW-2461-A and is therefore acceptable.

B&W STS is adding a new Condition B for one or more penetration flow paths with one containment isolation valve inoperable [for reasons other than purge valve leakage not within limit] with a Note specifying "Only applicable to penetration flow paths with two [or more]

containment isolation valves in the main steam lines and [ ].” There is also a Reviewer’s Note that states “The Condition B Note should list the specific penetrations (if any) identified by the plant-specific risk analysis as having high risk significance for an interfacing systems loss of coolant accident (ISLOCA).” This wording is consistent with the change made to Condition A and is consistent with the format and content rules in ITS. Additionally, the Required Actions and associated Completion Times are consistent with Condition A and the change evaluated by the staff in the NRC’s Safety Evaluation for BAW-2461-A. New Condition B for Main Steam Line Isolation Valves was added to conform with the NRC’s Safety Evaluation for BAW-2461-A since main steam line isolation valves were explicitly excluded from the Topical Report CT extension and is therefore acceptable.

B&W STS Condition B and Required Action B.1 are being revised to be Condition D and Required Action D.1. With the addition of new Conditions B and C the remaining Conditions and Required Actions need to be re-numbered. This change is editorial and results in no technical change and is therefore acceptable.

B&W STS is adding a new Condition C which is applicable when two or more penetrations have one inoperable containment isolation valve. This Condition requires isolating all but one of the affected penetrations within 4 hours (the existing Completion Time for Condition A). Once this Completion Time is satisfied and since Condition A is still applicable then this essentially limits the 7 day Completion Time in Condition A to a single penetration. This change conforms to Condition and Limitation 6 in the NRC's Safety Evaluation for BAW-2461-A and is therefore acceptable.

B&W STS Condition C and Required Actions C.1 and C.2 are being revised to be Condition E and Required Action E.1 and E.2. With the addition of new Conditions B and C the remaining Conditions and Required Actions need to be re-numbered. This change is editorial and results in no technical change and is therefore acceptable.

B&W STS Condition D and Required Action D.1, D.2 and D.3 are being revised to be Condition F and Required Action F.1, F.2 and F.3. With the addition of new Conditions B and C the remaining Conditions and Required Actions need to be re-numbered. This change is editorial and results in no technical change and is therefore acceptable.

B&W STS Condition E and Required Action E.1 and E.2 are being revised to be Condition G and Required Action G.1 and G.2. With the addition of new Conditions B and C the remaining Conditions and Required Actions need to be re-numbered. This change is editorial and results in no technical change and is therefore acceptable.

The following B&W STS Bases changes are being made and shall be submitted as required by 10 CFR 50.36(a). In all cases, the commission expects improved Bases to accompany requests for improved Technical specifications. The Staff's approval of the amendment was based on the information provided by the licensee, which includes the TS Bases. The changes to the Bases discussed below revise the current information in the STS Bases to support the changes made to the Technical Specifications. The Bases changes continue to meet the criteria specified in

the Final Policy Statement on “Technical Specifications Improvements for Nuclear Power Reactors” (58 FR 39132, 39139, July 22, 1993) by providing information necessary to support the Technical Specifications. After incorporation of the amendment, the licensee may follow TS 5.5.14, Bases Control Program, should it desire to make additional changes to the Bases.

- B&W STS Bases for B 3.6.3 Actions A.1, A.2 and A.3 are being revised to describe the Note that is being added indicating the Condition is only applicable to those penetration flow paths with two [or more] containment isolation valves and that the isolation valves in the main steam line are not applicable along with any specific penetrations identified by the plant-specific risk analysis. Since the changes are supported by risk-informed analyses, the Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, is satisfied. The Policy states, “The Commission expects that licensees, in preparing their Technical Specification related submittals, will utilize any plant-specific probabilistic safety assessment (PSA) or risk survey and any available literature on risk insights and PSAs.”
- B&W STS Bases for B 3.6.3 Required Action A.2 Completion Time is being revised from 4 hours to 7 days and indicates that this is based on an analysis of plant risk. The change is revising wording associated with the 4 hour completion time to a 7 day completion time. The 7 day completion time is now based upon a plant risk evaluation instead of a reasonable time to isolate the penetration. This change supports the changes made to the Technical Specifications and meets the Final Policy Statement (as stated above).
- B&W STS Bases for B 3.6.3 is adding support information for new Condition B and Required Actions B.1 and B.2 which is applicable for one or more penetration flow

paths with one containment isolation valve inoperable [for reasons other than purge valve leakage not within limit]. Condition B is also only applicable to penetration flow paths with two [or more] containment isolation valves in the main steam lines and [ ]. This change provides a more accurate description of the Applicability of Condition B and Required Actions B.1 and B.2.

- B&W STS Bases for B 3.6.3 is adding support information for new Condition C and Required Action C.1 which is applicable for two or more penetration flow paths with one containment isolation valve inoperable [for reasons other than Condition[s] E [and F]]. Condition C is only applicable to penetration flow paths with two [or more] containment isolation valves. The Required Action to isolate all but one of the affected penetration flow paths by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange within 4 hours ensures that simultaneous LCO entry of an inoperable CIV in separate penetration flow paths such that the proposed 7 day Completion Time in Condition A is limited to no more than one CIV at any given time. This change provides supporting information to ensure proper use and application of the changes made to the Technical Specifications based on TR BAW-2461-A.
- B&W STS Bases for B 3.6.3 are being revised such that each Condition and Required Action subsequent to the addition of new Conditions B and C need to be re-numbered. Additionally, a new reference has been added (Reference 6) which requires subsequent references to be re-numbered. The change corrects the format for the subject Conditions.

### 3.1 Summary

TSTF-498 would provide standardized wording in the B&W STS for plants implementing BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time

Change.” The changes to NUREG-1430 proposed by TSTF-498 have been reviewed for consistency with the current NUREG-1430 and BAW-2461-A. The proposed changes have been found to be consistent with NUREG-1430 and BAW-2461-A. Additionally, the proposed changes are consistent with the NRC staff’s safety evaluation which included a PRA evaluation for BAW-2461-A, and are therefore acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the [ ] State official was notified of the proposed issuance of the amendment. The State official had [(1) no comments or (2) the following comments - with subsequent disposition by the staff].

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards considerations, and there has been no public comment on the finding (73 FR 6529,6537, February 4, 2008). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 6.0 CONCLUSION

The Commission has concluded, on the basis of the considerations discussed above, that (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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

## 7.0 REFERENCES

1. Letter from the Technical Specifications Task Force (TSTF), a joint owners group activity, re: "TSTF-498, Revision 0 "Risk-Informed Containment Isolation Valve Completion Times (BAW-2461)," " dated December 20, 2006. (ADAMS ML063560402)
2. Letter from the TSTF re: Response to NRC Request for Additional Information Regarding TSTF-498, Revision 0, "Risk-Informed Containment Isolation Valve Completion Times (BAW-2461)," dated October 10, 2007. (ADAMS ML072840444)
3. BAW-2461-A, "Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change," Revision 0, dated October 2007,(ADAMS ML072980529)
4. NUREG 1430, "Standard Technical Specifications Babcock and Wilcox Plants," Revision 3.0. (ADAMS ML041830589 and ML041800598)
5. Nuclear Energy Institute 99-04, Revision 0, "Guidelines for Managing NRC Commitment Changes," July 1999.
6. Final Safety Evaluation for Pressurized Water Reactors Owners Group, Topical Report, BAW-2461, Revision 0, Risk-Informed Justification for Containment Isolation Valve Allowed Outage Time Change (TAC No. MD5722), (ADAMS ML072330227)