7590-01-P

NUCLEAR REGULATORY COMMISSION

Notice of Opportunity to Comment on Model Safety Evaluation on
Technical Specification Improvement Regarding
Revision to the Completion Time in STS 3.6.1.3, "Primary Containment Isolation Valves"
for General Electric Boiling Water Reactors
Using the Consolidated Line Item Improvement Process

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for comment.

SUMMARY: Notice is hereby given that the staff of the U. S. Nuclear Regulatory Commission (NRC) has prepared a model safety evaluation (SE) relating to changes to the completion time (CT) in Standard Technical Specification (STS) 3.6.1.3 "Primary Containment Isolation Valves (PCIVs)." The proposed change to the Technical Specifications (TS) would extend to 7 days the CT (or allowed outage time (AOT)) to restore an inoperable PCIV or isolate the affected penetration flow path for selected primary containment penetrations with two (or more) PCIVs and for selected primary containment penetrations with only one PCIV. This change is based on analyses provided in a generic topical report (TR) submitted by the Boiling Water Reactors Owner's Group (BWROG). The BWROG participants in the TS Task Force (TSTF) proposed this change to the STS in Change Traveler No. TSTF-454, Revision 0. This notice also includes 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 to incorporate this change into plant-specific TS for General Electric boiling water reactors (BWRs). Licensees of nuclear power reactors to which the models apply can request amendments conforming to the models. In such a request, a licensee should confirm the

applicability of the SE and NSHC determination to its plant. The NRC staff is requesting comments on the model SE and model NSHC determination before announcing their availability for referencing in license amendment applications.

DATES: The comment period expires 60 days from the date of this publication. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Comments may be submitted either electronically or via U.S. mail.

Submit written comments to: Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, Mail Stop: T-6 D59, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Hand deliver comments to: 11545 Rockville Pike, Rockville, Maryland, between 7:45 a.m. and 4:15 p.m. on Federal workdays.

Submit comments by electronic mail to: CLIIP@nrc.gov.

Copies of comments received may be examined at the NRC's Public Document Room, One White Flint North, Public File Area O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland.

FOR FURTHER INFORMATION CONTACT: Bhalchandra Vaidya, Mail Stop: O-7D1, Division of Licensing Project Management, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-3308.

SUPPLEMENTARY INFORMATION:

Background

Regulatory Issue Summary 2000-06, “Consolidated Line Item Improvement Process [CLIIP] for Adopting Standard Technical Specifications Changes for Power Reactors,” was issued on March 20, 2000. The CLIIP is intended to improve the efficiency and transparency of NRC licensing processes. This is accomplished by processing proposed changes to the STS in

a manner that supports subsequent license amendment applications. The CLIIP includes an opportunity for the public to comment on proposed changes to the STS following a preliminary assessment by the NRC staff and finding that the change will likely be offered for adoption by licensees. This notice is soliciting comment on a proposed change to the STS that changes the PCIV CTs for the BWR/4 and BWR/6 STS, NUREG-1433, Revision 3 and NUREG-1434, Revision 3, respectively. The CLIIP directs the NRC staff to evaluate any comments received for a proposed change to the STS and to either reconsider the change or proceed with announcing the availability of the change for proposed adoption by licensees. 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 would be processed and noticed in accordance with applicable NRC rules and procedures.

This notice involves an increase in the allowed CTs to restore an inoperable PCIV or isolate the affected penetration flow path when selected PCIVs are inoperable at BWRs. By letter dated September 5, 2003, the BWROG proposed this change for incorporation into the STS as TSTF-454, Revision 0. This change is based on the NRC staff-approved generic analyses contained in the BWROG TR NEDC-33046, "Technical Justification to Support Risk-Informed Primary Containment Isolation Valve AOT Extensions for BWR Plants," submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and Safety Evaluation dated October 8, 2004, accessible electronically from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet (ADAMS Accession No. ML042660055) at the NRC web site http://www.nrc.gov/reading-rm/adams.html. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the

NRC Public Document Room Reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail to pdr@nrc.gov.

Applicability:

This proposed change to revise the TS CTs for selected PCIVs is applicable to General Electric BWRs.

To efficiently process the incoming license amendment applications, the NRC staff requests each licensee applying for the changes addressed by TSTF-454, Revision 0, using the CLIIP to address the seven plant-specific conditions and the one commitment identified in the model SE, as follows:

Conditions:

1. Because not all penetrations have the same impact on core damage frequency (CDF), large early release frequency (LERF), incremental conditional core damage frequency (ICCDP), or incremental conditional large early release frequency (ICLERP), a licensee's application must provide supporting information that verifies the applicability of TR NEDC-33046, including verification that the PCIV configurations for the specific plant match the licensing topical report (LTR) and the risk parameter values used in the LTR are bounding for the specific plant. Any additional PCIV configurations or non-bounding risk parameter values not evaluated by the LTR should be included in the licensee's plant-specific analysis. [Note that PCIV configurations or non-bounding risk parameter values outside the scope of the LTR will require NRC staff review of the specific penetrations and related justifications for the proposed CTs.]

2. The licensee's application must provide supporting information that verifies that external event risk, either through quantitative or qualitative evaluation, will not have an adverse impact on the conclusions of the plant-specific analysis for extending the PCIV AOTs.

3. Because TR NEDC-33046 was based on generic plant characteristics, each licensee adopting the TR must provide supporting information that confirms plant-specific Tier 3 information in their individual submittals. The licensee's application must provide supporting information that discusses conformance to the requirements of the maintenance rule (10 CFR 50.65(a)(4)), as they relate to the proposed PCIV AOTs and the guidance contained in NUMARC 93.01, Section 11, as endorsed by Regulatory Guide (RG) 1.182, including verification that the licensee's maintenance rule program, with respect to PCIVs, includes a LERF/ICLERP assessment as part of the maintenance rule process.

4. The licensee's application must provide supporting information that verifies that a penetration remains intact during maintenance activities, including corrective maintenance activities. Regarding maintenance activities where the pressure boundary would be broken, the licensee must provide supporting information that confirms that the assumptions and results of the LTR remain valid. This includes the assumption that maintenance on a PCIV will not break the pressure boundary for more than the currently allowed AOT.

5. The licensee's application must provide supporting information that verifies the operability of the remaining PCIVs in the associated penetration flow path before entering the AOT for the inoperable PCIV.

6. Simultaneously entering the extended AOT for multiple PCIVs and the resulting impact on risk were not specifically evaluated by the BWROG. However, TR NEDC-33046 does state that multiple PCIVs can be out of service simultaneously during extended AOTs and does not preclude the practice. Therefore, since the current STS also allows separate condition entry for each penetration flow path, the licensee's application will provide supporting information that verifies that the potential for any cumulative risk impact of failed PCIVs and multiple PCIV extended AOT entries has been evaluated and is acceptable. The licensee's Tier 3 configuration risk management program (10 CFR 50.65(a)(4)) must provide supporting

information that confirms that such simultaneous extended AOT entries for inoperable PCIVs in separate penetration flow paths will not exceed the RG 1.174 and RG 1.177 acceptance guidelines, as confirmed by the analysis presented in TR NEDC-33046, and that adequate defense-in-depth for safety systems is maintained.

7. The licensee shall provide supporting information that verifies that the plant-specific probabilistic risk assessment (PRA) quality is acceptable for this application in accordance with the guidelines given in RG 1.174. To ensure the applicability of TR NEDC-33046, to a licensee's plant, additional information on PRA quality will be required from each licensee requesting an amendment in the following areas:

a. Justification that the plant-specific PRA reflects the as-built, as-operated plant.

b. Applicable PRA updates including individual plant examinations/individual plant examinations of external events (IPE/IPEEE) findings.

c. Conclusions of the peer review including any A or B facts and observations (F and Os) applicable to the proposed PCIV extended CTs.

d. The PRA quality assurance program and associated procedures.

e. PRA adequacy, completeness, and applicability with respect to evaluating the proposed PCIV extended AOT plant specific impact.

Commitment:

1. The RG 1.177 Tier 3 program ensures that while the plant is in a limiting condition for operation (LCO) condition with an extended AOT for an inoperable PCIV, additional activities will not be performed that could further degrade the capabilities of the plant to respond to a condition the inoperable PCIV or system was designed to mitigate and, as a result, increase plant risk beyond that assumed by the LTR analysis. A licensee's implementation of RG 1.177 Tier 3 guidelines generally implies the assessment of risk with respect to CDF. However, the proposed PCIV AOT impacts containment isolation and consequently LERF as well as CDF.

Therefore, a licensee's configuration risk management program (CRMP), including those implemented under the maintenance rule of 10 CFR 50.65(a)(4), must be enhanced to include a LERF methodology/assessment and must be documented in a licensee's plant-specific submittal.

The CLIIP does not prevent licensees from requesting an alternative approach or proposing the changes without providing the information described in the above 7 conditions, or making the requested commitment. Variations from the approach recommended in this notice may, however, require additional review by the NRC staff and may increase the time and resources needed for the review.

Public Notices

This notice requests comments from interested members of the public within 60 days of the date of this publication. Following the NRC staff's evaluation of comments received as a result of this notice, the NRC staff may reconsider the proposed change or may proceed with announcing the availability of the change in a subsequent notice (perhaps with some changes to the SE or proposed NSHC determination as a result of public comments). If the NRC staff announces the availability of the change, licensees wishing to adopt the change will submit an application in accordance with applicable rules and other regulatory requirements. The NRC staff will, in turn, issue for each application a notice of consideration of issuance of amendment to facility operating license(s), a proposed NSHC determination, and an opportunity for a hearing. A notice of issuance of an amendment to operating license(s) will also be issued to announce the revised requirements for each plant that applies for and receives the requested change.

PROPOSED SAFETY EVALUATION

U.S. Nuclear Regulatory Commission

Office of Nuclear Reactor Regulation

Consolidated Line Item Improvement

Technical Specification Task Force (TSTF) Change Traveler No.TSTF-454, Revision 0, "Increase PCIV Completion Times from 4 hours, 24 hours [note that the 24-hour portion was withdrawn], and 72 hours to 7 days (NEDC-33046)"

1.0 INTRODUCTION

By application dated [ ], [Licensee] (the licensee) requested changes to the Technical Specifications (TSs) for [facility]. The proposed changes would revise TS 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," by extending to 7 days the completion time (CT) to restore an inoperable PCIV or isolate the affected penetration flow path for selected primary containment penetrations with two (or more) PCIVs and for selected primary containment penetrations with only one PCIV.

2.0 REGULATORY EVALUATION

The existing Limiting Condition for Operation (LCO) 3.6.1.3, requires that each PCIV be operable. The operability of PCIVs ensures that the containment is isolated during a design-basis accident (DBA) and is able to perform its function as a barrier to the release of radioactive material. For boiling water reactor (BWR)/4 plants, if a PCIV is inoperable in one or more penetrations, the current required action is to isolate or restore the inoperable PCIV to operable status within 4 hours for penetrations with 2 PCIVs (except for the main steam line, in which

case 8 hours is allowed), and within 4 hours for penetrations with a single PCIV (except for excess flow check valves (EFCVs) and penetrations with a closed system, and for other cases if justified with a plant-specific evaluation, in which case 72 hours is allowed). Regarding the leakage rate of EFCVs, 72 hours is also currently allowed to restore EFCV leakage to within limit. For BWR/6 plants, the current required actions are the same as those for the BWR/4 plants with the exception that there are no TSs for EFCVs. The times specified for performing these actions were considered reasonable, given the time required to isolate the penetration and the relative importance of ensuring containment integrity during plant operation. In the case of a single EFCV PCIV or a single PCIV and a closed system, the specified CT takes into consideration the ability of the instrument and the small pipe diameter (associated with the EFCV) or the closed system to act as a penetration boundary.

On May 3, 2002, as supplemented by letter dated July 30, 2003, the Boiling Water Reactor (BWR) Owners Group (BWROG) submitted the generic Topical Report (TR) NEDC-33046, which provided a risk-informed justification for extending the TS allowed outage time (AOT) (also referred to as completion time), for a specific set of inoperable PCIVs from the current 4 hours or 72 hours to 7 days. Specifically, for BWR/4 plants, if a PCIV is inoperable in one or more penetrations, the proposed action is to isolate or restore the inoperable PCIV to operable status within 7 days for penetrations with 2 PCIVs (except for the feedwater isolation valves (FWIVs) and the residual heat removal (RHR) shutdown cooling suction line PCIVs, in which case the 4 hours is kept, and except for the main steam line isolation valves (MSIVs), in which case the 8 hours is kept); and within 4 hours for penetrations with a single PCIV, except for EFCVs and penetrations with a closed system, in which case 7 days is allowed (and except for other cases if justified with a plant-specific evaluation, in which case the 72 hours is kept). Regarding the leakage rate of EFCVs, 7 days is also proposed to restore EFCV leakage to within the limit. For BWR/6 plants, the proposed actions are the same as those for the BWR/4

plants with the exception that for penetrations with 2 PCIVs, there is an additional exception to the 7-day AOT (for the low pressure core spray system PCIVs, in which case the 4 hours is kept); and with the exception that there are no TSs for EFCVs.

The NRC staff used the guidance of Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Current Licensing Basis, 1998," and RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decision Making: Technical Specifications, 1998," in performing its review of this TR. RG 1.174 provides the guidelines to determine the risk level associated with the proposed change. RG 1.177 provides a three-tiered approach to evaluate the risks associated with proposed license amendments. The first tier evaluates the probabilistic risk assessment (PRA) model and the impacts of the changes on plant operational risk. The second tier addresses the need to preclude potentially high risk configurations, should additional equipment outages occur during the AOT. The third tier evaluates the licensee's configuration risk management program (CRMP) to ensure that the removal of equipment from service immediately prior to or during the proposed AOT will be appropriately assessed from a risk perspective. The NRC staff's safety evaluation (SE) dated October 8, 2004, also discusses the applicable regulations and additional applicable regulatory criteria/guidelines that were considered in its review of TR NEDC-33046.

3.0 TECHNICAL EVALUATION

3.1 Statement of Proposed Changes

The proposed changes to TS 3.6.1.3 include:

1. For the Condition of one or more penetration flow paths with one PCIV inoperable in a penetration flow path with two [or more] PCIVs, the Completion

Times for isolating the affected penetration (in Standard Technical Specification (STS) 3.6.1.3 Required Action A.1) are revised from "4 hours except for main steam line AND 8 hours for main steam line," to "4 hours for feedwater isolation valves (FWIVs), residual heat removal (RHR) shutdown cooling suction line PCIVs, and *Low Pressure Core Spray (LPCS) System PCIVs (NUREG-1434 only)* AND 8 hours for main steam line isolation valves (MSIVs) AND 7 days except for FWIVs, RHR shutdown cooling suction line PCIVs, *LPCS System PCIVs (NUREG-1434 only)*, and MSIVs." For PCIVs not analyzed in NEDC-33046 (i.e., FWIVs and MSIVs), the current Completion Times of 4 hours and 8 hours (of STS 3.6.1.3 Required Action A.1) are maintained; 4 hours for FWIVs and 8 hours for main steam lines (i.e., MSIVs as described in the current Bases for STS 3.6.1.3 Required Action A.1). For PCIVs analyzed in NEDC-33046 that did not meet the criterion for extension (i.e., RHR shutdown cooling suction line PCIVs (for all BWRs) and LPCS System PCIVs (for BWR/5 and BWR/6 designs only), the current Completion Time (of 4 hours of STS 3.6.1.3 Required Action A.1) is maintained. The Completion Time for other PCIVs, associated with penetrations with two [or more] PCIVs, is extended to 7 days.

2. For the Condition of one or more penetration flow paths with one PCIV inoperable in a penetration flow path with only one PCIV, the Completion Times for isolating the affected penetrations (STS 3.6.1.3 Required Action C.1) are revised from "4 hours except for excess flow check valves (EFCVs) and penetrations with a closed system AND 72 hours for EFCVs and penetrations with a closed system," to "4 hours except for excess flow check valves (EFCVs) and penetrations with a closed system AND [72 hours][7 days] for EFCVs and

penetrations with a closed system." *(For NUREG-1434, the Completion Times for STS 3.6.1.3 Required Action C.1 are revised from "4 hours except for penetrations with a closed system AND 72 hours for penetrations with a closed system," to "4 hours except for penetrations with a closed system AND [72 hours][7 days] for penetrations with a closed system.")*

3. For the Condition of one or more [secondary containment bypass leakage rate,][MSIV leakage rate,][purge valves leakage rate,][hydrostatically tested line leakage rate,][or][EFCV leakage rate] not within limit, the Completion Time for restoring leakage rate to within limit, when the leakage rate exceeded is the EFCV leakage rate (in STS 3.6.1.3 Required Action D.1), is revised from "[72 hours]" to "[7 days]" by adding a new Completion Time, "[AND 7 days for EFCV leakage]." *(The EFCV leakage rate Completion Time change is not applicable to NUREG-1434.)*

3.2 Evaluation of Proposed Changes

The NRC staff's SE on TR NEDC-33046, dated October 8, 2004, found that based on the use of bounding risk parameters for General Electric (GE)-designed plants, for the proposed increase in the PCIV AOT from 4 hours (for penetrations with 2 or more PCIVs) or 72 hours (for penetrations with a single EFCV PCIV, and penetrations with a single PCIV and a closed system) or 72 hours (for EFCV leakage) to 7 days, the risk impact of the proposed 7-day AOT for the PCIVs as estimated by core damage frequency (CDF), large early release frequency (LERF), incremental conditional core damage probability (ICCDP), and incremental conditional large early release probability (ICLERP), is consistent with the acceptance guidelines specified in RG 1.174, RG 1.177, and NRC staff guidance outlined in Chapter 16.1

of NUREG-0800. The NRC staff found that the risk analysis methodology and approach used by the BWROG to estimate the risk impacts were reasonable and of sufficient quality.

The NRC staff's October 8, 2004, SE also found the following. The Tier 2 evaluation did not identify any risk-significant plant equipment configurations requiring TS, procedure, or compensatory measures. TR NEDC-33046 implements a CRMP (Tier 3) using 10 CFR 50.65(a)(4) to manage plant risk when PCIVs are taken out-of-service. PCIV reliability and availability will also be monitored and assessed under the maintenance rule (10 CFR 50.65) to confirm that performance continues to be consistent with the analysis assumptions used to justify extended PCIVs AOTs.

The NRC staff's October 8, 2004, SE also found that the following conditions and commitment must be addressed by licensees adopting TR NEDC-33046 in plant-specific applications that seek approval of TSTF-454, Revision 0 for their plants:

Conditions:

1. Because not all penetrations have the same impact on core damage frequency (CDF), large early release frequency (LERF), incremental conditional core damage frequency (ICCDP), or incremental conditional large early release frequency (ICLERP), a licensee's application must provide supporting information that verifies the applicability of TR NEDC-33046, including verification that the PCIV configurations for the specific plant match the licensing topical report (LTR) and the risk parameter values used in the LTR are bounding for the specific plant. Any additional PCIV configurations or non-bounding risk parameter values not evaluated by the LTR should be included in the licensee's plant-specific analysis. [Note that PCIV configurations or non-bounding risk parameter values outside the scope of the LTR will require NRC staff review of the specific penetrations and related justifications for the proposed CTs.]

2. The licensee's application must provide supporting information that verifies that external event risk, either through quantitative or qualitative evaluation, will not have an adverse impact on the conclusions of the plant-specific analysis for extending the PCIV AOTs.

3. Because TR NEDC-33046 was based on generic plant characteristics, each licensee adopting the TR must provide supporting information that confirms plant-specific Tier 3 information in their individual submittals. The licensee's application must provide supporting information that discusses the conformance to the requirements of the maintenance rule (10 CFR 50.65(a)(4)), as they relate to the proposed PCIV AOTs and the guidance contained in NUMARC 93.01, Section 11, as endorsed by Regulatory Guide (RG) 1.182, including verification that the licensee's maintenance rule program, with respect to PCIVs, includes a LERF/ICLERP assessment as part of the maintenance rule process.

4. The licensee's application must provide supporting information that verifies that a penetration remains intact during maintenance activities, including corrective maintenance activities. Regarding maintenance activities where the pressure boundary would be broken, the licensee must provide supporting information that confirms that the assumptions and results of the LTR remain valid. This includes the assumption that maintenance on a PCIV will not break the pressure boundary for more than the currently allowed AOT.

5. The licensee's application must provide supporting information that verifies the operability of the remaining PCIVs in the associated penetration flow path before entering the AOT for the inoperable PCIV.

6. Simultaneously entering the extended AOT for multiple PCIVs and the resulting impact on risk were not specifically evaluated by the BWROG. However, TR NEDC-33046 does state that multiple PCIVs can be out of service simultaneously during extended AOTs and does not preclude the practice. Therefore, since the current STS also allows separate condition entry for each penetration flow path, the licensee's application will provide supporting

information that verifies that the potential for any cumulative risk impact of failed PCIVs and multiple PCIV extended AOT entries has been evaluated and is acceptable. The licensee's Tier 3 configuration risk management program (10 CFR 50.65(a)(4)) must provide supporting information that confirms that such simultaneous extended AOT entries for inoperable PCIVs in separate penetration flow paths will not exceed the RG 1.174 and RG 1.177 acceptance guidelines, as confirmed by the analysis presented in TR NEDC-33046, and that adequate defense-in-depth for safety systems is maintained.

7. The licensee shall provide supporting information that verifies that the plant-specific probabilistic risk assessment (PRA) quality is acceptable for this application in accordance with the guidelines given in RG 1.174. To ensure the applicability of TR NEDC-33046, to a licensee's plant, additional information on PRA quality will be required from each licensee requesting an amendment in the following areas:

a. Justification that the plant-specific PRA reflects the as-built, as-operated plant.

b. Applicable PRA updates including individual plant examinations/individual plant examinations of external events (IPE/IPEEE) findings.

c. Conclusions of the peer review including any A or B facts and observations (F and Os) applicable to the proposed PCIV extended CTs.

d. The PRA quality assurance program and associated procedures.

e. PRA adequacy, completeness, and applicability with respect to evaluating the proposed PCIV extended AOT plant specific impact.

Commitment

1. The RG 1.177 Tier 3 program ensures that while the plant is in a limiting condition for operation (LCO) condition with an extended AOT for an inoperable PCIV, additional activities will not be performed that could further degrade the capabilities of the plant to respond to a condition the inoperable PCIV or system was designed to mitigate and, as a result, increase

plant risk beyond that assumed by the LTR analysis. A licensee's implementation of RG 1.177 Tier 3 guidelines generally implies the assessment of risk with respect to CDF. However, the proposed PCIV AOT impacts containment isolation and consequently LERF as well as CDF. Therefore, a licensee's configuration risk management program (CRMP), including those implemented under the maintenance rule of 10 CFR 50.65(a)(4), must be enhanced to include a LERF methodology/assessment and must be documented in a licensee's plant-specific submittal.

Staff Findings:

The NRC staff has reviewed the proposed TS changes and finds that they are consistent with previous staff reviews of TR NEDC-33046 as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and Safety Evaluation dated October 8, 2004, and TSTF-454, Revision 0, and are acceptable. The NRC staff has also reviewed the licensee's supporting information and the statements regarding the above conditions and commitment and finds them acceptable. Therefore, the NRC staff finds that the increase in the CTs from 4 hours (for penetrations with 2 or more PCIVs) or 72 hours (for penetrations with a single EFCV PCIV, and penetrations with a single PCIV and a closed system) or 72 hours (for EFCV leakage) to 7 days is justified.

4.0 REGULATORY COMMITMENT

The licensee's letter dated [ ], contained the following regulatory commitment:

> [State the licensee's commitment and ensure that it satisfies the commitment in this SE, in Section 3.2 above.]

The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the above regulatory commitment are best

provided by the licensee's administrative processes, including its commitment management program. The above regulatory commitment does not warrant the creation of a regulatory requirement (item requiring prior NRC approval of subsequent changes).

5.0 STATE CONSULTATION

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

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes 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. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (XX FR XXXXX). Accordingly, the amendment meets 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 amendment.

7.0 CONCLUSION

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

PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Description of Amendment Request: The proposed amendment extends the completion time (CT) for penetration flow paths with one valve inoperable from 4 hours or 72 hours to 7 days. The change is applicable to both primary containment penetrations with two (or more) primary containment isolation valves (PCIVs) and with one PCIV. This change is not applicable to the feedwater isolation valves (FWIVs), the residual heat removal (RHR) shutdown cooling suction line PCIVs, the low pressure core spray (LPCS) PCIVs (boiling water reactor (BWR)/6 only), the main steam isolation valves (MSIVs), and [list of plant-specific valves].

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 do not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes revise the completion times (CTs) for restoring an inoperable primary containment isolation valve (PCIV) (or isolating the affected penetration) within the scope of the Boiling Water Reactor (BWR) Owners Group (BWROG) Topical Report (TR) NEDC-33046, “Technical Justification to Support Risk-Informed Primary Containment Isolation Valve AOT [Allowed Outage Time] Extensions for BWR Plants,” submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and Safety

Evaluation (SE) dated October 8, 2004, from 4 hours or 72 hours to 7 days. PCIVs are not accident initiators in any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased.

PCIVs, individually and in combination, control the extent of leakage from the primary containment following an accident. The proposed CT extensions apply to the reduction in redundancy in the primary containment isolation function by the PCIVs for a limited period of time, but do not alter the ability of the plant to meet the overall primary containment leakage requirements. In order to evaluate the proposed CT extensions, a probabilistic risk assessment (PRA) evaluation was performed in TR NEDC-33046, submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and SE dated October 8, 2004. The PRA evaluation concluded that, based on the use of bounding risk parameters for the General Electric (GE)- designed plants, the proposed increase in the PCIV CTs from 4 hours or 72 hours to 7 days does not alter the ability of the plant to meet the overall primary containment leakage requirements. It also concluded that the proposed changes do not result in an unacceptable incremental conditional core damage probability (ICCDP) or incremental conditional large early release probability (ICLERP) according to the guidelines of Regulatory Guide (RG) 1.177. As a result, there would be no significant increase in the consequences of an accident previously evaluated. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes revise the CTs for restoring an inoperable PCIV (or isolating the affected penetration) within the scope of TR NEDC-33046 submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and Safety Evaluation dated October 8, 2004, from 4 hours or 72 hours to 7 days. PCIVs, individually and in combination, control the extent of leakage from the primary containment following an accident. The proposed CT extensions apply to the reduction in redundancy in the primary containment isolation function by the PCIVs for a limited period of time, but do not alter the ability of the plant to meet the overall primary containment leakage requirements. 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 type of equipment will be installed). Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No.

The proposed change do not involve a significant reduction in a margin of safety. The proposed changes revise the CTs for restoring an inoperable PCIV (or isolating the affected penetration) within the scope of the TR NEDC-33046 submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and SE dated October 8, 2004, from 4 hours or 72 hours to 7 days. PCIVs, individually and in combination, control the extent

of leakage from the primary containment following an accident. The proposed CT extensions apply to the reduction in redundancy in the primary containment isolation function provided by the PCIVs for a limited period of time, but do not alter the ability of the plant to meet the overall primary containment leakage requirements. In order to evaluate the proposed CT extensions, a PRA evaluation was performed in TR NEDC-33046 submitted on May 3, 2002, as supplemented by letter dated July 30, 2003, and as approved by the NRC by letter and SE dated October 8, 2004. The PRA evaluation concluded that, based on the use of bounding risk parameters for GE-designed plants, the proposed increase in the PCIV CTs from 4 hours or 72 hours to 7 days does not alter the ability of the plant to meet the overall primary containment leakage requirements. It also concluded that the proposed changes do not result in an unacceptable ICCDP or ICLERP according to the guidelines of RG 1.177. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, the proposed change involves no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of no significant hazards consideration is justified.

Dated at Rockville, Maryland, this 19th day of May 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/
Herbert N. Berkow, Director
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland, this 19th day of May 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Herbert N. Berkow, Director
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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