



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 1, 2011

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-11-0106

TITLE: FINAL RULE: U.S. ADVANCED BOILING-WATER  
REACTOR AIRCRAFT IMPACT DESIGN CERTIFICATION  
AMENDMENT (RIN 3150-A184)

The Commission (with all Commissioners agreeing) approved final rule as noted in an Affirmation Session and recorded in the Staff Requirements Memorandum (SRM) of November 1, 2011.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

*(Handwritten Signature)*

Andrew L. Bates  
Acting Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Jaczko  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff  
OGC  
EDO  
PDR

VOTING SUMMARY - SECY-11-0106

RECORDED VOTES

		NOT APRVD	DISAPRVD	ABSTAIN	PARTICIP	COMMENTS	DATE
CHRM. JACZKO	X				X		9/30/11
COMR. SVINICKI	X				X		10/17/11
COMR. APOSTOLAKIS	X				X		10/17/11
COMR. MAGWOOD	X						10/12/11
COMR. OSTENDORFF	X						8/18/11

## **AFFIRMATION VOTE**

### **RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary

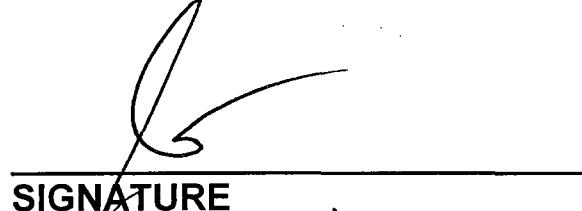
**FROM:** Chairman Gregory B. Jaczko

**SUBJECT:** SECY-11-0106 – FINAL RULE: U.S ADVANCED BOILING-WATER REACTOR AIRCRAFT IMPACT DESIGN CERTIFICATION AMENDMENT (RIN 3150-AI84)

Approved X Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

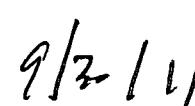
Not Participating \_\_\_\_\_

**COMMENTS:** Below \_\_\_\_\_ Attached X None \_\_\_\_\_



**SIGNATURE**

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**DATE**

Entered on “STARS” Yes X No \_\_\_\_\_

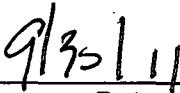
**Chairman Jaczko's Comments on SECY-11-0106,  
"Final Rule: U.S. Advanced Boiling Water Reactor Aircraft  
Impact Design Certification Amendment"**

I approve the staff's recommendation to publish the final rule that will amend Appendix A to 10 CFR Part 52 so that applicants intending to construct and operate a U.S. Advanced Boiling Water Reactor (ABWR) complies with the Aircraft Impact Assessment (AIA) rule. I believe that this amendment will help ensure that the new nuclear power plants built in accordance with the ABWR design is capable of ensuring public safety if impacted by a large, commercial aircraft.

Since the scope of this amendment is limited to the analysis necessary to meet the requirements of the AIA rule, the NRC's Near-Term Task Force recommendations listed in the "Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century" report are not applicable to this amendment. Therefore, I can support issuance of this final rule prior to the Commission acting on the individual recommendations by the Near-Term Task Force.

The statements of consideration contain extensive discussion on the use of multiple suppliers, but a minimal discussion on the technical aspects of the amendment. Prior to submittal of the final rule to the *Federal Register*, the staff should expand the discussion section of the statements of consideration concerning the technical evaluation of the amendment to include a complete, but brief description of the key design features and functional capabilities that satisfied the requirements 10 CFR 50.150, consistent with the level of – not the amount of – detail in section 19s, "Design Features for Protection Against a Large, Commercial Aircraft Impact," of the publicly available final safety evaluation report.

  
\_\_\_\_\_  
Gregory B. Jaczko

  
\_\_\_\_\_  
Date

## AFFIRMATION VOTE

### RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER SVINICKI

SUBJECT: SECY-11-0106 – FINAL RULE: U.S ADVANCED BOILING-WATER REACTOR AIRCRAFT IMPACT DESIGN CERTIFICATION AMENDMENT (RIN 3150-AI84)

Approved XX Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below XX Attached XX None \_\_\_\_\_

Approved, subject to the attached edits.



SIGNATURE

10/12/11

DATE

Entered on "STARS" Yes  No \_\_\_\_\_

## **NRC Use of "Branches" and "Options"**

*Comment: The NRC should suspend the STPNOC amendment and review the proposed changes to the ABWR design certification as departures in the STP Units 3 and 4 combined license application, as is allowed by the AIA Rule, 10 CFR 50.150(a)(3)(v)(B) and the associated provision in 10 CFR 52.79(a)(47). The proposed rulemaking uses a regulatory approach solely for the purpose of supporting the combined license application for the STP Units 3 and 4. (GEH-1)*

**NRC Response:** The NRC disagrees with the commenter's understanding that the "options" approach is being used in this proposed amendment of the U.S. ABWR DCR solely to support the COL application for the South Texas Project (STP) Units 3 and 4. On the contrary, as stated in the statements of consideration (SOC) for the proposed U.S. ABWR amendment, the NRC is proposing to use the "options" approach after a comprehensive review of a set of considerations. To reiterate the NRC's bases (as stated in the SOC for the proposed U.S. ABWR amendment), there is no statute or NRC regulation prohibiting the use of the "options" approach, nor are there any statutory or NRC regulatory provisions which prohibit the use of the "options" approach. All of the NRC's safety and regulatory objectives are met under the "options" approach. The STPNOC is providing sufficient information to determine its technical qualifications to supply the STPNOC-sponsored amendments addressing the AIA rule to third party users (i.e., users other than the STPNOC itself).

*or branches*

In addition, the NRC believes that there are no insurmountable issues in requiring the user (in most cases, the COL applicant referencing the U.S. ABWR and the STPNOC option) to prepare a single Design Control Document (DCD) integrating information from both the DCD developed by GE Nuclear Energy (GE) and the DCD developed by the STPNOC. The "options" approach avoids or addresses all of the STPNOC's concerns with the use of the "branches" alternative for its request to amend the U.S. ABWR. There would be a limited

period in which the STPNOC option could be referenced by a future COL applicant, that is, until the renewal of the U.S. ABWR design certification. Finally, the "options" approach fully protects the legitimate proprietary and commercial interests of GE in the original U.S. ABWR design certification. Upon consideration of the information presented by the STPNOC in light of the NRC's technical and regulatory concerns, the NRC developed the "options" approach to address the STPNOC amendment. As was stated in the SOC, if the NRC receives other limited-scope design certification amendments (similar in scope to the STPNOC amendment request), it will consider whether the "branches" approach or the "options" approach offers the most effective and efficient regulatory option at that time based on the scope of the amendment and the specific circumstances associated with the particular application.

Inasmuch as the basis for the commenter's proposal is incorrect, the NRC declines to adopt the commenter's proposed course of action. No change was made to the final rule as a result of this comment.

*Comment: The NRC should suspend the STPNOC amendment and review the proposed changes to the ABWR design certification as departures in the STP Units 3 and 4 combined license application, as is allowed by the AIA Rule, 10 CFR 50.150(a)(3)(v)(B) and the associated provision in 10 CFR 52.79(a)(47). The "options" and "branches" approaches introduce complexity and does not encourage standardization within a single design. (GEH-2)*

X

NRC Response: The NRC agrees with the commenter that the adoption of both the "option" and "branches" approaches to amendment (and renewal) of a DCR will introduce complexity to the regulatory scheme. However, the commenter did not explain why the NRC's proposal to use the "options" approach was not the best alternative to address the circumstances raised by the STPNOC amendment, as discussed in the SOC of the proposed rule.

disagrees with the comment as understood. As discussed in the SOC, industry stakeholders in the original 10 CFR Part 52 rulemaking opposed the use of rulemaking to approve (certify) designs because they felt that their legitimate commercial interests (including, but not limited to, protection of trade secrets and other proprietary information) would not be protected in rulemaking. Industry stakeholders repeated and amplified these concerns in the development of the U.S. ABWR and the System 80+, the first two DCRs. The NRC's response to industry stakeholder concerns were reflected in the regulatory approach adopted for the U.S. ABWR and System 80+, as discussed in the SOC for this amendment of the U.S. ABWR DCR. Hence, the NRC believes that it must address the protection of the (legitimate) commercial interests of the original design certification applicant where an entity intending to supply the certified design that is not the original applicant seeks either the amendment or the renewal of a DCR. Such NRC discussion simply recognizes the potential existence of the commercial interests of the original design certification applicant, as a reference for assuring that the proposed rulemaking does not significantly diminish or eliminate entirely those commercial interests *without determining their actual existence or magnitude.*

For these reasons, the NRC declines to adopt the commenter's suggestion. No change was made to either the SOCs for the final STPNC amendment or the final rule language as the result of this comment.

*Comment: Regardless of NRC regulatory provisions regarding use of an alternative vendor [a "supplier" under the NRC's proposed terminology] in a combined license proceedings, the NRC should treat an alternate entity's application as a new design certification under the provisions of 10 CFR 52.59(c). (GEH-6)*

NRC Response: The NRC disagrees with the comment. The NRC did not intend, when it adopted 10 CFR 52.59(c) as part of the 2007 revision of 10 CFR Part 52, for this provision to address the circumstance where multiple entities wish to supply the same certified design.

*describes as its purpose, when it does not even mention notice to the NRC. The purpose of the STPNOC DCD is to identify the necessary changes to the GE DCD to meet 10 CFR 50.150(a). Each such change represents a conflict between the GE DCD and the STPNOC DCD. Uncertainties about the meaning of "design matter" and the level of detail required for an item to be "described specifically" have the potential to lead to compliance issues that are not reasonably related to safety. (NINA-8)*

NRC Response: Upon consideration of the matter, the NRC agrees with the comment that the proposed paragraph III.E is unnecessary. The NRC's intent in proposing the reporting requirement <sup>was</sup> is to ensure that the NRC is made aware of conflicts between the GE DCD and the STPNOC DCD, which may be identified by a referencing COL applicant or holder. Upon consideration of the comment, the NRC agrees that any material conflict identified by the COL applicant or holder would ultimately be brought to the attention of the NRC by virtue of the legally-binding need to comply with both DCDs. If there is a conflict, the referencing COL applicant or holder would seek resolution of the conflict, through: i) either taking or submitting a request for a departure (including a request for exemption as necessary); or ii) submitting a 10 CFR Part 2, Subpart H rulemaking petition to amend the DCR in order to resolve the apparent conflict. In addition, reporting may also be required under 10 CFR 50.55(e), 10 CFR 50.72, 10 CFR 50.73, or 10 CFR Part 21.

In addition, the NRC agrees with the commenter's discussion of the reporting obligation of the design certification applicants (both the original applicant, as well as the applicant for an amendment which leads to establishment of an option or "branch"). Thus, proposed paragraph III.E does not appear to be needed to ensure necessary reporting of such conflicts identified by either the original applicant or the applicant for an amendment, which leads to establishment of an option or "branch." For these reasons, the proposed paragraph III.E is not included in the final rule.

multiple suppliers of a single design certification when it was considering the regulatory approach for certification (rulemaking versus licensing), and afforded protection to the original applicant by various provisions of 10 CFR Part 52. This protection was embodied in provisions included in each of the DCRs issued to date, and these provisions would continue to be included in future DCRs. Hence, no supplier—including the original design certification applicant—may reasonably claim that the approval of a new "branch" constitutes an unwarranted diminution in the commercial value of the certified design which it sponsored.

### **NRC's Regulatory Concerns are Met**

The NRC believes that any alternative and structure for a DCR with multiple suppliers must meet the following regulatory concerns. Any rule amendment (or renewal) which introduces a new supplier must minimize the possibility of re-opening the safety and regulatory conclusions reached by the NRC with respect to previously approved aspects of the design and supplier(s). In addition, if the new supplier is proposing changes to the actual certified design, then the substitute or new portions of the design<sup>8</sup>, must to the maximum extent practical, be attributable solely to the "sponsoring" supplier, and therefore distinguishable from the "common" portions of the design which each supplier must support (the "branches" alternative adopting the premise that the supplier must be technically qualified to supply all of the certified design, including the "common" portions).<sup>9</sup> The regulatory approach and structure must reflect a sound

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<sup>8</sup> A "substitute" portion of the certified design sponsored by the new supplier serves to replace a discrete portion of a design as sponsored by the original design certification applicant (in other words, the basis for comparison of a new branch must always be the original certified design), but without augmenting or adding a completely new functional capability. By contrast, a "new" portion of the certified design sponsored by the new supplier serves to either: 1) augment a discrete portion of the design as sponsored by the original design certification applicant or 2) add a completely new functional capability not previously considered and addressed in the original certified design. As an example, the amendment of the U.S. <sup>16</sup>ABWR DCR sought by the STPNO<sup>C</sup> would add new functional capabilities—the ability to withstand aircraft impacts of the kind described in the AIA rule, 10 CFR 50.150. Hence, the "changes" sought by the STPNO<sup>C</sup> would be considered "new" portions of the certified design. X

The NRC believes a broad finding of technical qualifications is necessary because the original

basis for allowing the NRC to make a technical qualifications finding with respect to the supplier. Finally, the approach and structure must allow for imposition of applicable NRC requirements on each supplier, and the legal ability of the NRC to undertake enforcement and regulatory action on each supplier.

- X The "branches" alternative meets all of these regulatory concerns. By creating a separate branch for the design to be supplied by the new supplier in the rule and requiring the new certified design to be described in a separate DCD created and supported by the new supplier, there is a strong basis for arguing that the certified design(s) already approved by the NRC are not affected and that the issue finality accorded to those certified designs (as controlled by 10 CFR 52.63) continues. Hence, in any rulemaking approving a new branch, the NRC need not consider any comments seeking changes to the existing certified design.

The use of a separate DCD to describe the new certified design, by its very nature, serves to 1) distinguish any substitute or new portions of the certified design sponsored only by the new supplier and 2) make clear that the substitute or new portions are being sponsored solely by the new supplier (because the other branches do not contain any reference to or mention of the substitute or new portions of the design sponsored by the new supplier). The use of a separate DCD describing the entire design is also consistent with the NRC's position that it must conduct a technical qualifications review of the new supplier and make a finding that the new supplier is technically qualified to provide the entire certified design. The NRC's recommendation to use a separate DCD, coupled with a structure of the DCR language (as codified in one of the appendices to 10 CFR Part 52) that applies common regulatory requirements to all suppliers, allows for the NRC to take regulatory action against any supplier

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design certification applicant is under no legal or NRC regulatory obligation (consistent with the concept of providing protection to the proprietary information and legitimate commercial interests of the original supplier) to provide technical support on the "common" portions of the certified design to either the new supplier or a user.

The NRC is making a minor change to the wording of the last sentence in paragraph III.B in the final rule for clarity. In the proposed rule, this sentence read, "An applicant referencing this appendix shall indicate in its application and in all necessary supporting documentation which of these two options it is implementing." This sentence is revised in the final rule to read, "An applicant referencing this appendix shall indicate in its application and in all necessary supporting documentation whether it is implementing the GE DCD, or both the GE DCD and the STPNC DCD." This avoids the use of the word "options" which was used in a different context in this paragraph than it was in other sections of the rule.

Paragraphs III.C and III.D set forth the way potential conflicts are to be resolved. Paragraph III.C establishes the Tier 1 description in the DCD as controlling in the event of an inconsistency between the Tier 1 and Tier 2 information in the DCD. The NRC is making a minor change to paragraph III.C, which currently states that, if there is a conflict between Tier 1 and Tier 2 of the DCD, then Tier 1 controls. The revised paragraph states that, if there is a conflict between Tier 1 and Tier 2 of a DCD, then Tier 1 controls. This change is necessary to indicate that this requirement applies to both the GE DCD and the STPNC DCD. X

The NRC is also making a change to paragraph III.D. Paragraph III.D establishes the generic DCD as the controlling document in the event of an inconsistency between the DCD and the final safety evaluation report (FSER) for the certified standard design. The revision indicates that this is also the case for an inconsistency between the STPNC DCD and the NRC's associated FSER, referred to as the "AIA FSER."

In the proposed rule, the NRC had proposed to redesignate current paragraph III.E as proposed paragraph III.F and to add a new paragraph, III.E, stating that, if there is a conflict between the design as described in the GE DCD and a design matter which implements the STPNC-certified design option but is not specifically described in the STPNC DCD, then the GE DCD controls. The NRC had proposed this paragraph to address the situation when,

despite the best efforts of the STPNOc and the NRC, there were unintended consequences or unaddressed issues resulting from the STPNOc's amendment to the U.S. ABWR design. The NRC received a comment on this aspect of the proposed rule from NINA stating that proposed paragraph III.E should be deleted because it was unnecessary and not clear. Upon

~~consideration of the comment, the NRC has decided to delete proposed paragraph III.E in the final rule.~~ For the reasons set forth in the NRC response to comment NINA-8 in Section II of this document, the NRC agrees that inclusion of this provision is not necessary. *move to end.*

#### **4. Additional Requirements and Restrictions (Section IV).**

Section IV presents additional requirements and restrictions imposed upon an applicant who references this appendix. Paragraph IV.A presents the information requirements for these applicants. Paragraph IV.A.3 currently requires the applicant to include, not simply reference, the proprietary information and SGI referenced in the U.S. ABWR DCD, or its equivalent, to ensure that the applicant has actual notice of these requirements. The NRC is revising paragraph IV.A.3 to indicate that a COL applicant must include, in the plant-specific DCD, the proprietary information and SGI referenced in both the GE DCD and the STPNOc DCD, as applicable.

The NRC is also adding a new paragraph IV.A.4 to indicate requirements that must be met in cases where the COL applicant is not using the entity that was the original applicant for the design certification (or amendment) to supply the design for the applicant's use. Paragraph IV.A.4.a requires that a COL applicant referencing this appendix include, as part of its application, a demonstration that an entity other than GE Nuclear Energy is qualified to supply the U.S. ABWR-certified design unless GE Nuclear Energy supplies the design for the applicant's use. Paragraph IV.A.4.b requires that a COL applicant referencing the STPNOc-certified design option include, as part of its application, a demonstration that an entity other

CD. By doing so, the applicant or licensee effectively indicates which generic design it is using (i.e., the GE-certified design, or the GE/STPNOC composite certified design). An applicant referencing this appendix is required to indicate in its application and in all necessary supporting documentation which of these two alternatives it is implementing.

The NRC is making a minor change to paragraph III.C, which currently states that, if there is a conflict between Tier 1 and Tier 2 of the DCD, then Tier 1 controls. The revised paragraph states that, if there is a conflict between Tier 1 and Tier 2 of a DCD, then Tier 1 controls, because the requirement also applies to the STPNOC DCD.

*A this change of "The" to "a" was necessary*

Paragraph III.D establishes the generic DCD as the controlling document in the event of an inconsistency between the DCD and the FSER for the certified standard design. The NRC is making a change to paragraph III.D which indicates that in the event of an inconsistency between the STPNOC DCD and the AIA FSER, the STPNOC DCD controls.

#### **D. Additional Requirements and Restrictions (Section IV)**

The NRC is revising paragraph IV.A.3 to indicate that a COL applicant must include, in the plant-specific DCD, the proprietary information and SGI referenced in both the GE DCD and the STPNOC DCD, as applicable, or its equivalent.

Section IV presents additional requirements and restrictions imposed upon an applicant who references this appendix. Paragraph IV.A presents the information requirements for these applicants. Paragraph IV.A.3 requires the applicant to include the proprietary information and SGI referenced in the DCD, or its equivalent, to ensure that the applicant has actual notice of these requirements. The NRC is revising paragraph IV.A.3 to indicate that a COL applicant must include, in the plant-specific DCD, the SUNSI (including proprietary information) and SGI referenced in both the GE DCD and the STPNOC DCD, as applicable, or the equivalent of this information. If the COL applicant is referencing only the GE DC, then the applicant must include

The NRC is revising paragraphs VI.B.1 and VI.B.2 to redesignate references to the "FSER" as references to the "U.S. ABWR FSER" and references to the "generic DCD" as references to the "GE DCD" to distinguish the FSER and DCD for the original certified design from the FSER and DCD issued to support the STPNC amendment to the U.S. ABWR design. In addition, this revision adds text to paragraph VI.B.1 to identify the information resolved by the Commission in this rulemaking to certify the STPNC AIA amendment to the U.S. ABWR design.

The NRC is revising paragraph VI.B.7 to identify as resolved all environmental issues concerning SAMDAs associated with the information in the NRC's final EA and Revision 0 of ABWR-LIC-09-621, "Applicant's Supplemental Environmental Report-Amendment to ABWR Standard Design Certification," for the AIA amendment to the U.S. ABWR design for plants referencing this appendix whose site parameters are within those specified in the technical support document. The existing site parameters specified in the technical support document are not affected by this design certification amendment.

#### **G. Processes for Changes and Departures (Section VIII)**

The NRC is revising Section VIII to address the change control process specific to departures from the information required by 10 CFR 52.47(a)(28) to address the NRC's AIA requirements in 10 CFR 50.150. Specifically, the NRC is revising paragraph VIII.B.5.b to indicate that the criteria in this paragraph for determining if a proposed departure from Tier 2 requires a license amendment do not apply to a proposed departure affecting information required by 10 CFR 52.47(a)(28) to address aircraft impacts.

In addition, the NRC is redesignating paragraphs VIII.B.5.d, B.5.e, and B.5.f as paragraphs VIII.B.5.e, B.5.f, and B.5.g, respectively, and adding a new paragraph VIII.B.5.d. New paragraph VIII.B.5.d requires an applicant referencing the U.S. ABWR DCR, that proposed

**AFFIRMATION VOTE**

**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary

**FROM:** Commissioner George Apostolakis

**SUBJECT:** SECY-11-0106 – FINAL RULE: U.S ADVANCED BOILING-WATER REACTOR AIRCRAFT IMPACT DESIGN CERTIFICATION AMENDMENT (RIN 3150-AI84)

Approved x Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

**COMMENTS:** Below x Attached \_\_\_\_\_ None \_\_\_\_\_

I approve the final rule amending the U.S. ABWR standard plant design including Commissioner Svinicki's comments.

  
\_\_\_\_\_  
**SIGNATURE**

10/17/11  
\_\_\_\_\_  
**DATE**

Entered on "STARS" Yes x No \_\_\_\_\_

## AFFIRMATION VOTE

### RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MAGWOOD

SUBJECT: SECY-11-0106 – FINAL RULE: U.S ADVANCED BOILING-WATER REACTOR AIRCRAFT IMPACT DESIGN CERTIFICATION AMENDMENT (RIN 3150-AI84)

Approved X Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_\_\_ Attached \_\_\_\_\_ None X



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SIGNATURE

12 October 2011  
DATE

Entered on “STARS” Yes X No \_\_\_\_\_

## **AFFIRMATION VOTE**

### **RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary

**FROM:** COMMISSIONER OSTENDORFF

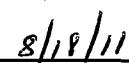
**SUBJECT:** SECY-11-0106 – FINAL RULE: U.S. ADVANCED  
BOILING-WATER AIRCRAFT IMPACT DESIGN  
CERTIFICATION AMENDMENT (RIN3150-A184)

**Approved X** **Disapproved \_\_\_\_\_** **Abstain \_\_\_\_\_**

**Not Participating \_\_\_\_\_**

**COMMENTS:** **Below** **Attached** **None X**

  
**SIGNATURE**

  
**DATE**

**Entered on “STARS” Yes X No**