

January 10, 2018

Mr. Jerald G. Head  
Senior Vice President, Regulatory Affairs  
General Electric-Hitachi  
Nuclear Energy Americas, LLC  
P.O. Box 780, M/C A-18  
Wilmington, NC 28401-0780

SUBJECT: FINAL SAFETY EVALUATION FOR GE HITACHI NUCLEAR ENERGY  
AMENDMENT TO NEDO-11209 REVISION 13, "GE HITACHI NUCLEAR  
ENERGY QUALITY ASSURANCE PROGRAM DESCRIPTION"  
(EPID L-2017-TOP-0058)

Dear Mr. Head:

By letter dated October 6, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17279A629), GE Hitachi Nuclear Energy Americas LLC (GEH) submitted the proposed amendment to Topical Report (TR) NEDO-11209, Revision 13, "GE Hitachi Nuclear Energy Quality Assurance Program Description," to the U.S. Nuclear Regulatory Commission (NRC) staff for review.

By letter dated December 8, 2017, an NRC draft safety evaluation (SE) regarding our approval of TR NEDO-11209 Revision 13, "GE Hitachi Nuclear Energy Quality Assurance Program Description," was provided for your review and comment (ADAMS Accession No. ML17334A074). By letter dated December 15, 2017, you stated that GEH did not identify any factual errors or clarity concerns in the draft SE (ADAMS Accession No. ML17349A537).

The NRC staff has found that TR NEDO-11209, Revision 13, is acceptable for referencing in licensing applications for nuclear power plants to the extent specified and under the limitations delineated in the TR and in the enclosed final SE. The final SE defines the basis for our acceptance of the TR.

Our acceptance applies only to material provided in the subject TR. We do not intend to repeat our review of the acceptable material described in the TR. When the TR appears as a reference in licensing applications, our review will ensure that the material presented applies to the specific plant involved. License amendment requests that deviate from this TR will be subject to a plant-specific review in accordance with applicable review standards.

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In accordance with the guidance provided on the NRC website, we request that GNF publish an approved version of TR NEDO-11209 Revision 13, within three months of receipt of this letter. The approved version shall incorporate this letter and the enclosed final SE after the title page. The approved version shall include a "-A" (designating approved) following the TR identification symbol.

If future changes to the NRC's regulatory requirements affect the acceptability of this TR, GNF will be expected to revise the TR appropriately or justify its continued applicability for subsequent referencing. Licensees referencing this TR would be expected to justify its continued applicability or evaluate their plant using the revised TR.

Sincerely,

*/RA/*

Dennis C. Morey, Chief  
Licensing Processes Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Docket No. 99902024

Enclosure:  
Final SE (Non-Proprietary)

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(EPID L-2017-TOP-0058) DATED: JANUARY 10, 2018

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**ADAMS Accession No.: ML18002A432; \*concurrence via e-mail**

**NRR-106**

<b>OFFICE</b>	NRR/DLP/PLPB/PM	NRR/DLP/PLPB/LA*	NRO/DCIP/QVIB-3/BC	NRR/DLP/PLPB/BC
<b>NAME</b>	JGolla	DHarrison	KKavanagh	DMorey
<b>DATE</b>	1/9/2018	1/9/2018	1/9/2018	1/10/2018

**OFFICIAL RECORD COPY**

GE-Hitachi Nuclear Energy Americas

Docket No. 99902024

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FINAL SAFETY EVALUATION OF GENERAL ELECTRIC HITACHI NUCLEAR ENERGY,

QUALITY ASSURANCE TOPICAL REPORT NEDO-11209-A, REVISION 13,

“GE HITACHI NUCLEAR ENERGY QUALITY ASSURANCE PROGRAM DESCRIPTION”

(EPID L-2017-TOP-0058)

DOCKET NO. 99902024

## 1.0 INTRODUCTION

By letter dated October 6, 2017 (Ref. 1), General Electric Hitachi Nuclear Energy (GEH) submitted an amendment to Quality Assurance Topical Report (QATR) NEDO 11209-A, Revision 13, “GE Hitachi Nuclear Energy Quality Assurance Program Description,” to the U.S. Nuclear Regulatory Commission (NRC) for review and approval in accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.4(b)(7)(ii). GEH proposed that this updated QATR would replace the current QATR for GEH, which was approved by NRC as documented in a safety evaluation (SE) dated June 6, 2016 (Ref. 2).

## 2.0 REGULATORY BASIS

The Commission’s regulatory requirements related to Quality Assurance (QA) programs for non-licensees are set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.4(b)(7)(ii). This regulation requires that a change to a NRC-accepted QA program description from non-licensees (i.e., architect/engineers, nuclear steam system suppliers, fuel suppliers, constructors, etc.) must be submitted to the NRC. The NRC will review the proposed QATR for acceptability to ensure the applicable requirements of Appendix B to 10 CFR Part 50 will be satisfied.

Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to 10 CFR Part 50 establishes QA requirements for the design, fabrication, construction, and testing of structures, systems, and components (SSCs) of the facility. The pertinent requirements of Appendix B to 10 CFR Part 50 apply to all activities affecting the safety-related functions of SSCs and include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, and modifying.

## 3.0 EVALUATION

In evaluating the adequacy of the GEH QATR, the NRC staff used the guidance contained in NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” SRP Section 17.5, “Quality Assurance Program Description – Design Certification, Early Site Permit and New License Applicants,” Revision 1, dated August 2015 (Ref. 3) hereafter referred to as standard review plan (SRP) Section 17.5, which provides acceptance criteria for design certification, early site permit, combined operating license, construction permit, and operating license applicants. SRP Section 17.5 is based on American Society of Mechanical Engineers (ASME) Standard NQA-1-2008 Edition and the NQA-1a-2009 Addenda, as supplemented by additional regulatory and industry guidance for nuclear operating facilities. ASME Standard NQA-1-2008 Edition and the NQA-1a-2009 Addenda, upon which the

GEH QATR is based, incorporated the supplemental guidance into a single document, and is, therefore, in alignment with SRP Section 17.5. In addition, NQA-1-2008 Edition and the NQA-1a-2009 Addenda, is endorsed by NRC Regulatory Guide 1.28, "Quality Assurance Program Requirements (Design and Construction)," Revision 4.

The proposed changes made to GEH's QATR, Revision 13, include minor editorial changes and changes to the organizational structure within GEH. In a conference call held on November 9, 2017, GEH staff provided clarification for organizational changes regarding the reporting structure of the Profit and Loss (P&L) Business Leaders, Nuclear Oversight Quality, and P&L Quality Leaders. GEH clarified that the dotted lines between P&L Business leaders and P&L Quality leaders and the dotted lines between Nuclear Oversight Quality and P&L Quality leaders, as shown in Figure 1 of Revision 13 to the QATR, provide flexibility for the management of resources in implementing the quality requirements set forth in the QATR; however, Nuclear Oversight Quality maintains responsibility for the final release of products to the customer.

The NRC staff verified that the revised GEH QATR continues to ensure that persons and organizations performing quality assurance functions have the required authority and organizational freedom, and remain sufficiently independent from cost and schedule when opposed to safety considerations.

#### 4.0 CONCLUSION

The NRC staff used the acceptance criteria of NUREG-0800, Section 17.5 as the basis for evaluating the acceptability of the GEH QATR, NEDO-11209-A, Revision 13 for conformance with the applicable requirements of Appendix B to 10 CFR Part 50. The NRC staff concludes that GEH's QATR, NEDO-11209-A, Revision 13, follows the NRC guidance contained within and conforms to the format of NUREG-0800, Section 17.5, complies with Appendix B to 10 CFR Part 50 requirements for the QA program and, therefore, is acceptable.

#### 5.0 REFERENCES

1. GE Hitachi Nuclear Energy Amendment to NEDO-11209-A, Revision 13, October 6, 2017, "GE Hitachi Nuclear Energy Quality Assurance Program Description" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17279A629).
2. Safety Evaluation of General Electric Hitachi GE Hitachi Nuclear Energy, Quality Management System, Quality Assurance Topical Report, NEDO-11209, Revision 12, Quality Assurance Program Description (CAC NO. MF7028), June 6, 2016 (ADAMS Accession No. ML16138A359).
3. NUREG-0800, Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition, Section 17.5 Revision 1, "Quality Assurance Program Description – Design Certification, Early Site Permit and New License Applicants," August 2015 (ADAMS Accession No. ML15037A441).

Principal Contributor: Ashley Ferguson, NRO

Date: January 10, 2018