



SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. CERTIFICATE/QUALITY ASSURANCE PROGRAM (QAP) HOLDER:

GE Hitachi Nuclear Energy
6705 Vallecitos Road
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2. NRC/REGIONAL OFFICE

Headquarters
U. S. Nuclear Regulatory Commission
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REPORT NUMBER(S)

71-0170/2013-201

3. CERTIFICATE/QAP DOCKET NUMBER(S)

QAP Approval 71-0170
CoC 9228

4. INSPECTION LOCATION

Vallecitos Nuclear Center

5. DATE(S) OF INSPECTION

11/19-21/2013

CERTIFICATE/QUALITY ASSURANCE PROGRAM HOLDER:

The inspection was an examination of the activities conducted under your QAP as they relate to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your QAP Approval and/or Certificate(s) of Compliance. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- ☒ 1. Based on the inspection findings, no violations were identified.
- ☐ 2. Previous violation(s) closed.
- ☐ 3. The violations(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, to exercise discretion, were satisfied.

Non-cited violation(s) was/were discussed involving the following requirement(s) and Corrective Actions(s):

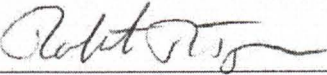

- ☐ 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
CERTIFICATE/QAP REPRESENTATIVE	Tom Caine	T.A. Caine	1/2/14
NRC INSPECTOR	Robert Temps	Robert Temps	12/19/13
BRANCH CHIEF	Eric Benner	Eric Benner	12/19/13

INSPECTOR NOTES COVER SHEET

Licensee/Certificate Holder	GE Hitachi Nuclear Energy
Licensee/Certificate Holder contact/address	Donald Krause Manager, Regulatory Compliance Vallecitos Nuclear Center 6705 Vallecitos Road Sunol, CA 94586-9524
Docket No.	071-00170
Inspection Report No.	2013-201
Inspection Dates	November 19-21, 2013
Inspection Location	Vallecitos Nuclear Center, Sunol, CA
Inspectors	Robert Temps Jim Pearson
Summary of Findings and Actions	<p>The purpose of this limited scope inspection was to assess the adequacy of actions taken by GE Hitachi Nuclear Energy (GEH) for the procurement and fabrication of three new material baskets for use in the GE 2000 package design, NRC Certificate of Compliance (CoC) 9228. GEH plans to use the new baskets to support upcoming transportation activities.</p> <p>The team assessed that GEH properly implemented their NRC-approved Quality Assurance Program (QAP) for the qualification of the basket fabrication vendor, Terminal Manufacturing Co., LLC. No concerns were identified with the physical workmanship of the two baskets inspected. The team did raise some technical concerns with regard to GEH's classification of basket components considered important to safety (ITS). These concerns on classification were communicated to the NRC Division of Spent Fuel Storage and Transportation Licensing Branch for their consideration in a current amendment request for CoC 9228.</p>
Lead Inspector Signature/Date	Robert Temps  12/20/13
Inspector Notes Approval Branch Chief Signature/Date	Eric Benner  12/20/13

Background

On November 19-21, 2013, the NRC performed an inspection at GEH's Vallecitos Nuclear Center (VNC). The purpose of this limited scope inspection was to assess the adequacy of actions taken by GE Hitachi Nuclear Energy (GEH) for the procurement and fabrication of three new material baskets for use in the GE 2000 package design, NRC Certificate of Compliance (CoC) 9228. GEH plans to use the new baskets to support upcoming transportation activities. At the time of the inspection, GEH had an amendment request pending with the NRC for CoC 9228 that includes the use of the new basket design. Transportation activities in the GE 2000 package will not occur until the amendment request is processed by the NRC.

Findings

The team reviewed GEH Supplier Audit Report (SAR) TMC-2011-01 conducted in November 2011. The SAR was of Terminal Manufacturing Company (TMC), LLC, located in Berkeley, CA, and the scope involved qualification of TMC for procurement of material and fabrication of safety components. The team noted that TMC has been an approved supplier for GEH for some time and that the audit was for the purpose of maintaining TMC as an approved supplier/fabricator and was not performed for the sole purpose of the planned fabrication of new baskets for the GE 2000 package although such activity is within the scope of GEH's approval of TMC. The team noted that the SAR was performed using a NIAC checklist. Two findings were identified by GEH in the audit; one was corrected at the time of the audit and the other was addressed through issuance of a supplier corrective action report. The team assessed that the audit was adequate and performed in accordance with the applicable GEH QAP for audits. Auditor qualifications were also reviewed and no concerns were identified.

The team reviewed Purchase Order (PO) 437082431, Revision 3, for the fabrication of three new material baskets for the Model GE-2000 Transport Package, NRC CoC 9228. The PO was provided to TMC to perform the fabrication of the three new material baskets. The team noted that the PO indicated that some items listed on the PO were Safety-Related and that 10 CFR Part 21 applied to those items.

The team verified items listed on both pages of GEH Parts List 183C8412, Revision 1, "Material Basket," matched the descriptions on both pages of associated drawing 183C8412, Revision 1, as well as GEH "licensing" drawing 183C8356, Revision 3, "Material Basket Certification Drawing" provided to the NRC as part of the pending amendment request to NRC CoC 9228. The team reviewed procurement records for the two basket items classified as Safety Related/ITS Cat A on drawing 183C8356 and did not identify any concerns. Procurement of the ITS Cat C items and weld wire were also reviewed and no concerns were identified.

Two of the three new material baskets were present at VNC for the team to inspect. The third basket had been sent to GEH's Wilmington, NC, facility. The team physically inspected the exterior of the two baskets. No concerns were identified with the physical workmanship of the two baskets inspected.

The team identified a concern with regard to the classification of components and welds used in the material basket "licensing" and fabrication drawings. The team noted that the draft "licensing" drawing 183C8356 uses mixed terminology for the classification of components. Two of the six components listed in the drawing are designated safety-related (SR) and all welds are

designated as not SR. These terms are defined under GEH's QAP which is written to satisfy 10 CFR 50, Appendix B. The drawing also has a parts list that categorizes the components per NUREG 6407 that is used for the classification of ITS components for 10 CFR Part 71 and 72 applications. The two SR components were appropriately listed as ITS Cat A items; the rest as ITS Cat C and welds and weld material were not listed. The team noted that per the guidance of NUREG 6407, welds for mixed category components, in this case Cat C to Cat A, are controlled to the higher level component (Cat A) unless a lower classification is justified. Per the drawing, the welds were considered not SR; however, no justification was provided on the drawing for this classification. When questioned by the team, GEH provided verbal justification of the welds' classification as not SR but no formal engineering analysis backing up the verbal statement was provided. The team also questioned GEH regarding the classification of components and welds associated with a shielding plug installed on the bottom end of the material basket. GEH provided verbal justification to the question, but again, no formal engineering analysis was provided. The team's concerns regarding the classification issues were communicated to GEH personnel and then to management and staff in the NRC's Division of Spent Fuel Storage and Transportation for consideration in the processing of GEH's pending amendment request to NRC CoC 9228. This issue is closed from an inspection standpoint.