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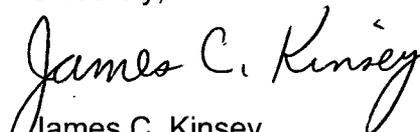
U.S. Nuclear Regulatory Commission
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Subject: **Response to Portion of NRC Request for Additional Information Letter No. 126 Related to ESBWR Design Certification Application, RAI Number 14.3-281**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by NRC letter dated December 20, 2007 (Reference 1). The GEH response to RAI Number 14.3-281 is addressed in Enclosure 1.

If you have any questions or require additional information, please contact me.

Sincerely,


James C. Kinsey
Vice President, ESBWR Licensing

D068
NRC

References:

1. MFN 07-718. Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request For Additional Information Letter No. 126 Related To ESBWR Design Certification Application*, December 20, 2007.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 126 Related to ESBWR Design Certification Application, RAI Number 14.3-281

cc: AE Cabbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
DH Hinds GEH/Wilmington (with enclosure)
eDRF 0000-0080-4802

Enclosure 1

MFN 08-086 Supplement 34

Response to Portion of NRC Request for

Additional Information Letter No. 126

Related to ESBWR Design Certification Application

RAI Number 14.3-281

NRC RAI 14.3-281

NRC Summary:

Nonsystem-based ITAAC and notification

NRC Full Text:

In Section 1.1.2.2, Implementation of ITAAC, the staff finds the discussion on pg 1.1-4 regarding..."A report exists and concludes that " provides clarification that could be suitable for inclusion in a definition of report as discussed in the comment above.

The staff finds the discussion on pg 1.15 regarding "Inspection will be performed..." suitable for inclusion in a definition for report as discussed above and for expanding the definition of "Inspection" as discussed above.

The staff appreciates the discussion of nonsystem-based ITAAC provided in the third paragraph on pg 1.1-5 and completion of ITAAC on a system-by-system basis even though the ITAAC is not worded to allow completion on this basis. From a practical standpoint, the staff understands that a system-by-system or some other type of completion basis may be necessary for COL holder to track the ITAAC to its full completion.

However, the staff requests that the applicant revise the following statement:

"Notification to the NRC of completion of the nonsystem-based ITAAC also may be on a system basis throughout construction; however, a separate notification to the NRC will be made upon final completion of the nonsystem-based ITAAC for purposes of ensuring that the Acceptance Criteria have been met."

Although it may be beneficial from an inspection schedule and resource loading perspective to be informed of incremental ITAAC completion steps, the staff suggests that to avoid the implication that every COL holder should do this, the statement should convey the notion that COL holders should discuss with NRC whether notification should be provided. In addition, since at this time the NRC process for performing verification activities related to ITAAC implementation and closeout has not yet been completely defined and approved, the staff suggests that the only action necessary for the staff to perform is upon receipt of notification of final ITAAC completion and not on completion of incremental or system-based steps.

GEH Response

In RAI 14.3-281, there are two parts.

The first part of this RAI is associated with the DCD Tier 1 definition of "report" as requested in RAI 14.3-278, and the DCD Tier 1 definition of "inspection" as requested in RAI 14.3-279. RAI 14.3-278 (definition of report) and RAI 14.3-279 (definition of

inspection) are addressed in MFN 08-086, dated February 6, 2008. RAI 14.3-278 and RAI 14.3-279 are resolved.

The second part of this RAI is associated with the staff's concern regarding the discussion in DCD Tier 1 subsection 1.1.2.2, Implementation of ITAAC. GEH agrees that the discussion of nonsystem-based ITAAC should be revised to avoid the implication that every COL Holder must notify the NRC of ITAAC completion on an incremental basis. This discussion will be revised to convey that the only action necessary is notification to the NRC of final ITAAC completion and not upon completion of incremental or system-based steps, and that notification of the NRC of nonsystem-based ITAAC completion in incremental or system-based steps should be discussed with the NRC whether notification should be provided.

DCD Impact

DCD Tier 1, Subsection 1.1.2.2, will be revised as noted in the attached markup.

procedures, certified data sheets, commercial dedication procedures and records, quality assurance records, calculation notes, and equipment qualification data packages.

Many entries in the ITA column of the ITAAC tables include the words “Inspection will be performed for the existence of a report verifying...” When these words are used it indicates that the ITA is tests, type tests, analyses, or a combination of tests, type tests, and analyses and a report will be produced documenting the results. This report will be available for inspection.

Many ITAAC are only a reference to another Tier 1 location, either a section, subsection, or ITAAC table entry (for example, “See Tier 1, Section...”). A reference to another ITAAC location is always in both the ITA and acceptance criteria columns for a design commitment. This reference is an indication that the ITA and Acceptance Criteria for that Design Commitment are satisfied when the referenced ITA are completed and the Acceptance Criteria for the referenced Tier 1 sections, subsections, or table entries are satisfied.

For those nonsystem-based ITAAC, which address piping and equipment qualification, the ITA and Acceptance Criteria may be satisfied on a system-by-system basis so as not to delay completion of ITAAC for a particular system. In this manner, a system may be turned over for operation following verification of the information needed to satisfy the nonsystem-based ITAAC. Documentation of completion of the ITAAC for a particular system will be retained in a manner that will allow verification of completion of the ITAAC for the nonsystem-based ITAAC. Notification to the NRC of completion of the nonsystem-based ITAAC ~~also~~ may be on a system basis throughout construction and should be discussed with the NRC whether notifications should be provided. ~~;~~ ~~however, a separate n~~ Notification to the NRC will be made upon final completion of the nonsystem-based ITAAC for purposes of ensuring that the Acceptance Criteria have been met.

1.1.2.3 Discussion of Matters Related to Operations

In some cases, the Design Descriptions in this document refer to matters that relate to operation, such as normal valve or breaker alignment during normal operation modes. Such discussions are provided solely to place the Design Description provisions in context (*e.g.*, to explain automatic features for opening or closing valves or breakers upon off-normal conditions). Such discussions shall not be construed as requiring operators during operation to take any particular action (*e.g.*, to maintain valves or breakers in a particular position during normal operation).

1.1.2.4 Interpretation of Figures

In many but not all cases, the Design Descriptions in Section 2 include one or more figures, which may represent a functional diagram, general structural representation, or another general illustration. For instrumentation and control systems, the figures also represent aspects of the relevant logic of the system or part of the system. Unless specified explicitly, these figures are not indicative of the scale, location, dimensions, shape, or spatial relationships of as-built structures, systems, or components. In particular, the as-built attributes of structures, systems, and components may vary from the attributes depicted on these figures, provided that those safety functions discussed in the Design Description pertaining to the figure are not adversely affected.