GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, 175 CURTNER AVE., SAN JOSE, CALIFORNIA 95125

NUCLEAR FUEL
AND SERVICES
DIVISION
SPENT FUEL SERVICES OPERATION

Docket No. 71-9001

April 22, 1980

United States Nuclear Regulatory Commission
Region IV
Attn: Mr. Uldis Potapovs
Chief, Vendor Inspection Branch
611 Ryan Plaza Drive
Suite 1000
Arlington, TX 76012

SUBJECT: QA PROGRAM INSPECTION REPORT NOS. 71009001/80-01, 99900382/80-1
(IF-300 SPENT FUEL SHIPPING CASK)

Gentlemen:

Your QA Program Inspection Report, dated March 24, 1980 relative to the NRC review of the IF-300 Spent Fuel Shipping Cask records, has been reviewed. The report contains no proprietary information.

Attached are the written statements which you requested, containing (1) a description of the steps taken to correct the deviations, (2) a description of steps taken to prevent recurrence, and (3) the date the corrective actions will be completed.

If you require additional information, or if you have any questions relative to the attached responses, please contact L.E. Fischer or W.C. Wheadon.

Respectfully submitted,

GENERAL ELECTRIC COMPANY

J.E. Van Hoomissen

J.E. Van Hoomissen, Manager
Spent Fuel Services Operation

/bn

Attachment

cc: B. Wolfe

8006040032

Docket Nos. 71009001/80-01
99900382/80-01

GENERAL ELECTRIC RESPONSES TO NRC
QUALITY ASSURANCE PROGRAM INSPECTION REPORT
DATED MARCH 24, 1980

The following are responses to the Notice of Deviation contained in the subject report received by General Electric on March 28, 1980. The report documented findings of the inspection conducted by Mr. W.M. McNeill at the GE facility at Morris, Illinois relative to the IF-300 Spent Fuel Shipping Casks.

The following respond to the deviations in the same order as reported. The GE response is given after each deviation.

A. "NRC Finding: General Electric IF-300 Shipping Cask Consolidated Safety Analysis Report (CSAR), Section XI, Appendix XI-1, 4.2.2 states in part:

' The fabrication record will contain all required test reports, material certifications, NDT results, weld and welder qualifications and similar affirmations of quality. Also included will be in-process design changes, material deviation reports, receiving and in-process inspection reports, and audits.'

Contrary to the above, the following documents were not contained in the fabrication records.

1. Certification of the cask cavity pressure relief valves made by Target Rock as a 73J001, Revision J, valve as required by the Certificate of Compliance, 9001, Revision 9;"

GE Response

a. *Fabrication records for the valves have been requested from the valve supplier (Target Rock). Since both Rev. H and Rev. J valves are utilized, a request to the NRC will be made to change the Certificate of Compliance, condition number 17, to include both Rev. H and Rev. J of the Target Rock valve 73J001 as previously authorized in Revision 8 of the Certificate. At the same time, the IF-300 CSAR (NEDO-10084-2) will be changed to clearly include Revision H of the valve.*

b. *All valves are now procured to the requirements of the Spent Fuel Services Operation Quality Assurance plan (NEDO 20776) which was approved by the NRC on October 5, 1979. The valve is classified as a safety-related item and as such requires complete material certification and traceability. Application of the QA plan requirements will prevent recurrence of the above deviation.*

c. *Completion date: Certificate of Compliance change request to be submitted by June 1, 1980. Records should be received from Target Rock by August 1, 1980.*

2. "Certification of cask cavity and shielding tank globe valves and verification that the welding on these valves was in compliance with the requirements of the IF 300 Shipping Cask Consolidated Safety Analysis Report (SAR), specifications, and ASME Code;"

GE Response

a. *Corrected material certifications have been requested from the valve manufacturer as well as verification that the welding was performed in compliance with specification requirements. The corrected material data will identify the specific valve component to which the certification applies.*

b. *Application of the SFSO QA plan for future purchases will prevent recurrence of the deviation.*

c. *Completion date: September 1, 1980.*

3. "Certifications of energy absorbing members, heat number F30479 and locating key, heat number 13524. The shielding material, heat number 331 did not have the physical testing records which are part of the material certification. The above material certifications were required by D-1 Specification and procurement documents;"

GE Response

a. *Certifications for material heat numbers F30479 and 13524 have been requested from Stearns-Roger.*

b. *Certification (including the physical testing records) for shielding material heat number 331, has been requested from Eldorado.*

c. *Application of the SFSO QA plan for future purchases will prevent recurrence of the deviation.*

d. *Completion date: August 1, 1980.*

4. "Qualification of a nondestructive inspector identified with the 'Tulip' stamp as required by the SAR, Appendix XI-1, section 3.1.2.(i);"

GE Response

a. *The Stearns-Roger Manufacturing Data Package was incomplete during the February 25-29, 1980 review. Certification that the inspector was qualified was in the data package; however, the documentation failed to show the relationship between the 'Tulip' stamp and the inspector's name. Stearns-Roger has been requested to provide the missing data.*

b. Application of the SFSO QA plan for future purchases will prevent recurrence of the deviation.

c. Completion date: August 1, 1980.

5. "Documented acceptance of the radiographic rejection of the spun casting used for some inner shells as required by the SAR, Appendix XI-1, section 3.1.2.(m);"

GE Response

a. The D-1 Specification required that the material be radiographed and meet the requirements of ASTM standard E-71-64. The material certification, dated November 22, 1972, stated that the spun castings, heat 142789, did not meet the Specification requirements. Stearns-Roger apparently failed to properly document the rejection. Before the material was used in cask fabrication, however, engineering evaluations were made by Stearns-Roger and by General Electric. It was concluded that the material could be used to fabricate inner shells for the IF-301 and IF-302 if the castings passed a hydrostatic test per Stearns-Roger procedure SR-PP-200. Shop Route 51775, no. 661 verifies that the tests were successfully completed. Data to support the hydrostatic test in lieu of the radiograph test are on file at Morris. A Memo to File has been prepared which gives approval to use the material to fabricate casks IF-301 and IF-302. The memo was signed by the General Electric employees who were responsible for original cask design and fabrication.

b. Future casks will be fabricated according to the requirements contained in the SFSO QA plan. Adherence to this plan will prevent recurrence of the above deviation.

c. Completion date: August 1, 1980.

6. "Approval by General Electric of an in-process design change on the inner shell. The inner shell material was changed from a spun casting to a rolled and welded fabrication. Approval of such changes is required by the SAR and the specification. (See Details Section B.4.C.)"

GE Response

a. The IF-300 CSAR (NEDO-10084-2) Table V-1, page 5-4, states that the inner shell may be made from ASTM A296-65-CG-8M (317 SST modified) or AISI 200 Type 216 SST rolled plate. The inner and outer shell drawing, M-41, also allows the inner shell to be made from either material. In addition, Stearns-Roger was authorized to use the 216 SST material on 8-1-73 as shown on transmittal letter GESR D001.

b. The SFSO QA plan assures that appropriate documentation of such changes is completed.

c. Refer to GESR D001, August 1, 1973. This information is available for review at Morris.

B. "NRC Finding: General Electric IF 300 Shipping Cask Consolidated Safety Analysis Report, Section XI, 11.3.1.3 states:

'The cask cavity, closure, closure seal, piping and valves will be hydrostatically tested to 600 psig at room temperature.'

Contrary to the above, cask serial number 301 was hydrostatically tested to 400 psig. (See details section B.4.C.);"

GE Response

a. *This item was not specifically discussed during the exit interview. Cask 301 was hydrostatically tested to 600 psig at the GE facility in Morris during August of 1973, according to documentation on file at Morris. The test pressure was held for 16 hours. During February 1974 a second 600 psig hydro test was performed for 15 minutes.*

b. *The SFSO QA plan assures that appropriate documentation of required testing is completed.*

c. *Documentation of these tests is available for review at Morris.*