U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION IV

Report No. 99900403/81-02

Company: General Electric Company
Nuclear Energy Business Group
175 Curtner Avenue
San Jose, California 95125

Inspection at: San Jose, California

Inspection Conducted: June 22-26, 1981

Inspectors: D. D. Chamberlain 7-13-81
D. D. Chamberlain, Contractor Inspector Date
Reactor Systems Section
Vendor Inspection Branch

J. R. Costello 7/16/81
J. R. Costello, Contractor Inspector Date
Reactor Systems Section
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Approved by: C. J. Hale 7-20-81
C. J. Hale, Chief Date
Reactor Systems Section
Vendor Inspection Branch

Summary

Inspection Conducted on June 22-26, 1981 (Report No. 99900403/81-02)

Areas Inspected: Implementation of 10 CFR Part 50 and Topical Report NEDO-11209-04A in the areas of design document control, design change control and follow up on previous inspection findings. The inspection involved 60 inspector-hours on site by two NRC inspectors.

Results: In the areas inspected, there were no nonconformances or unresolved items identified.

DETAILS SECTION I

(Prepared by D. D. Chamberlain)

A. Persons Contacted

R. Akavceti, Engineer
K. I. Curry, Specialist, Quality Notifications and Audits
R. L. Fisher, Acting Manager, Qualifications and Standards Engineering
C. W. Hart, Manager, Panel and Panel Modification Design Engineering
G. Heinold, Senior Engineer
A. J. James, Manager, Hydraulic System Design
*D. E. Lee, Manager, Quality Control
H. Y. Nalcano, Principal Quality Control Engineer
G. J. Romanek, Engineer
A. Schwartz, Specialist, Configuration Control Planning and Scheduling
*R. J. Valencia, Audit Coordinator
R. Waldman, Audit Coordinator
*J. D. Webster, Manager, Nuclear Services Quality Assurance

*Denotes those present at exit meeting.

B. Follow Up on Previous Inspection Findings

1. (Open) Nonconformance (81-01, Item E): Identification numbers of deviation disposition requests (DDRs) were changed without exhibiting the required dated initials of the QC Engineer and were voided without noting the replacement DDR number.

   The DDRs that were voided without noting the replacement DDR number have been corrected and the situation was traced to a single isolated cause. The corrective and preventive action taken has been reviewed by the NRC inspector and is considered adequate. The changing of identification numbers of DDRs was done at the supplier level on prenumbered blank DDR forms in order to retain an original DDR number. This practice is not considered by General Electric to require initials and dates due to the numbers not being controlled until the DDRs are logged in by General Electric. General Electric has committed to changing Quality Control Standing Instruction 7.2.19 by July 31, 1981, to clarify the numbering practice for DDRs. This item will remain open pending the NRC inspector verification of the change.

2. (Closed) Unresolved Item (81-01): The inspector could not determine that the quality assurance program requirements imposed by General Electric on the suppliers of spare and renewal parts meet current NRC requirements.

   The quality assurance program applicable to spare part procurement,

whether for immediate or later use, is the one to which the specific licensee is committed (passed down the procurement chain). The applicable requirements are those to which the licensee has committed to in his Safety Analysis Report. The General Electric spare parts program is committed to and capable of meeting the individual license requirements based on supplying spare parts that are equal to or better than the original equipment.

3. (Closed) Follow up Item (81-01): Corrective and preventive measures for the PGCC (Power Generation Control Complex) flexible conduit grounding problem are still in the formative stage.

   Grounding Requirements Applied Practice No. 304A1640GA was issued on June 25, 1981, for plants in the design and manufacturing phases. All of the required Field Instructions were issued by June 25, 1981, to correct equipment shipped to plants. This completes all of the committed action on this item and the action was verified by the NRC inspector.

4. (Closed) Follow up Item (80-03): While no deviations to required qualification testing of components were identified during this inspection, we will review other components on this and other projects during a future inspection to assure that committed qualification testing is being imposed and that documentation attesting to the qualification testing is being properly controlled.

   The NRC inspector examined the cross reference index that is used to locate applicable qualification testing documentation in the Design Record Files. Four components were selected and the required qualification records were retrieved and examined by the NRC inspector. All required documentation was filed properly and readily retrievable.

   Note: See Details Section II for additional follow up on previous inspection findings.

C. Design Change Control

1. Objectives

   The objectives of this area of the inspection were to verify that:

   a. Procedures have been established and implemented for controlling changes to approved design documents.

   b. Design changes are:

      (1) reviewed for the impact of the change,

      (2) documented as to the action taken, and

      (3) transmitted to all affected persons and organizations.

c. The design changes are justified and subjected to review and approval by the same groups or organizations as for the original design (see d. below for exceptions).

d. When responsibility has been changed, the designated organization shall have access to the pertinent information, competence in the specific area of design, and an understanding of the requirements and intent of the original design.

2. Method of Accomplishment

The preceding objective were accomplished by an examination of:

a. General Electric Quality Assurance Topical Report, NEDO-11209-04A.

b. Engineering Operating Procedures:

(1) EOP 44-1.00, Introduction Change Control,

(2) EOP 55-2.00, Engineering Change Control,

(3) EOP 55-2.10, Floor Engineering Changes,

(4) EOP 55-3.00, Field Deviation Dispositions, and

(5) EOP 55-4.00, Change Control Board.

c. Ten Field Deviation Disposition Requests

d. Twenty-two Engineering Change Notices and the affected Design Documents.

3. Findings

In this area of the inspection, no nonconformances or unresolved items were identified.

D. Exit Meeting

A meeting was conducted with management representatives at the conclusion of the inspection on June 26, 1981. In addition to the individuals indicated by an asterisk in the Details Sections, those in attendance were:

N. E. Barclay, Audit Coordinator
J. Barnard, Manager, Product and Quality Assurance Operation
R. C. Boesser, Manager, Technical and Administrative Programs
A. Breed, Manager, Quality Assurance
J. K. Powledge, Manager, Quality Assurance Engineered Equipment and Installation

The NRC inspector summarized the scope and findings of the inspection for those present at the meeting. Management representatives acknowledged the statements of the inspector.

DETAILS SECTION II

(Prepared by J. R. Costello)

A. Persons Contacted

E. G. Blake, Manager Professional Resources
C. L. Buckner, Specialist Quality Systems
*C. A. Cameron, Acting Manager Safety Evaluation Programs
S. C. Cooper, Field Change Control Clerk
K. I. Donley, Manager Plant Definition and Release Control
C. D. Magrath, Manager Advance Operating Systems
W. F. Perrault, Manager Quality Control Engineering Valves & Piping Components
B. L. Smith, Manager Engineering Scheduling
*R. J. Valencia, Audit Coordinator
E. W. Zitting, Engineering Analyst

*Denotes those present at exit meeting.

B. Technical Personnel Background Verification

1. Objectives

Follow up on previous inspection. During the previous inspection an examination of the personnel files was inconclusive due to the recent origin of the new technical personnel background verification program. The new program had not been in existence long enough to get information back from educational institutions and former employers.

2. Method of Accomplishment

The preceding objectives were accomplished by an examination of:

a. Revised General Electric Professional Resources Practices and Procedures No. 471-2 entitled "Verification of Professional Qualifications," Revision 1, dated June 1981.

b. Personnel files of five technical employees who have accepted offers of employment.

3. Findings

GE have revised their system for verifying professional qualifications. They are now requiring prospective employees to sign a release form to obtain verification of education, employment, and professional certification.

A random sample of five personnel files of recent hires showed very complete records of education and employment for four of the people and an inconclusive record for the fifth person. Attempts are still being made to verify if the claimed educational experience does exist.

C. Follow up on Previous Inspection Findings

1. (Closed) Follow Up Item (Report No. 80-03): It does not appear that GE's procedures and/or management policies are effectively implementing the requirements of 10 CFR Part 21.

   Since the inspection reported in Inspection Report No. 99900403/80-03, GE has revised their practices and procedures for processing and evaluating a potentially reportable condition (PRC). Each PRC is documented in an auditable file which identifies all required actions concerning evaluations and resolution of the PRC. The final conclusion for each PRC will be either a reportable condition, a germane condition, or a nonreportable condition. If the PRC is determined to be either reportable or germane the NRC will be notified. A germane condition is defined as a deviation or defect that is not reportable under 10 CFR Part 21, but which GE perceives could be of potential safety interest to the NRC.

   The inspector examined four randomly selected PRC files, one of which was classified as germane, and found the information in them well documented and traceable. In each case the final conclusion and the bases for that conclusion were clearly stated.

2. (Closed) Nonconformance (Report No. 81-01): Audit Report NEPO 80-01 was not issued within 30 days of post audit conference, bimonthly report of status of committeed corrective action is overdue and not yet issued, and listings of persons contacted during pre-audit and post-audit meeting were not included in audit report.

   Audit Report NEPO 80-01 was published one week late on December 8, 1980. This appears to be an isolated case and has been called to the attention of the auditor. The requirement for the bimonthly report of status of corrective action has been omitted in the new procedure PG&R 50-5.00 which replaces EEPS-1. The requirement for listing of persons contacted during pre-audit and post-audit meetings was a failure to follow procedures. This failure to follow procedures has been called to the attention of the lead auditor of this audit and all other cognizant personnel in QAEE&I by a memorandum dated November 20, 1980, signed by the Manager of QAEE&I.

   During January 1981, the Manager, Nuclear Energy Purchasing Operation

had initiated steps to rewrite the EEP Manual. The new manual entitled Purchasing Guidelines and Responsibilities was issued on May 1, 1981. This manual changed the requirements of the EEP manual against which seven CARs had been written in Audit Report NEPO 80-01. The seven CARs were closed out on the basis that the requirements no longer existed and a new audit has been scheduled to determine if the Nuclear Energy Purchasing Operation is complying with the new requirements. The NRC inspector will follow up on implementation of the new procedural requirements during a future inspection.

3. (Closed) Follow Up Item (Report No. 81-01): Examination of personnel files were inconclusive due to the recent origin of the program and inadequate time to get information back from schools and former employees.

   GE has improved their program for verifying professional qualifications. They are now requiring prospective employees to sign a release form to obtain verification of education, employment and professional certification. The NRC inspector reviewed five personnel files of recent hires and found all the essential information in four of the files with the possibility on the fifth that some claimed educational experience did not exist. This is still being investigated.

D. Design Document Control

1. Objectives

   To determine that approved procedures have been established and are being implemented for the control and distribution of design documents that provide for:

   a. Identification of personnel positions or organizations responsible for preparing, reviewing, approving, and issuing design documents.

   b. Identification of the proper documents to be used in performing the design.

   c. Coordination and control of design (internal and external) interface documents.

   d. Ascertaining that proper documents, and revisions thereto, are accessible and are being used.

   e. Establishing distribution lists which are updated and maintained current.

2. Methods of Accomplishment

The preceding objectives were accomplished by an examination of:

a. General Electric Quality Assurance Topical Report NEDO-11209-04A, Revision 2.

b. Section 2.3 of BWR Quality Assurance Manual NEDE-20586.

c. Engineering Operating Procedures EOP 25-4.00 (Work Authorizations), EOP 30-9.00 (Document Revision Status Reports), EOP 42-5.00 (Engineering Requirements Document Release), EOP 42-6.10 (Engineering Document Issue and Application), EOP 55-3.00 (Field Deviation Dispositions), EOP 55-3.20 (Field Disposition Instruction) and EOP 60-2.00 (Document Distribution).

d. Quality Control Standing Instructions QCSI No. 7.2.21 (QAEE&I Responsibility Pertaining to FDDRs).

e. Following documents to verify implementation of quality assurance program commitments, procedural requirements, and to satisfy the intent of the objectives section. These documents are as follows:

(1) Three Project Work Authorizations PWA 1607ks, PWA 1327LN and PWA 1338HA.

(2) Three Engineering Work Authorizations EQA No. EAC 93-6V, EWA No. EAC 93-AR and EWA No. EAF 14-03.

(3) Four Material Requests MR YC400, MR YC121, MR YC 116 and MR YC 123.

(4) Five Engineering Instructions EI No. 120-3812, EI No. 120-3364, EI No. 120-3726, EI No. 120-3811 and EI No. 120-3822.

(5) Six Engineering Review Memorandums:

ERM No. DMD-2922, ERM No. DMD-798, ERM No. DMB-1048A,

ERM No. DMB951, ERM No. DMB-1842A and ERM NO. AMB-270.

(6) Thirteen Specifications, Nos. 21A9303, E5D-YP1, E5D-YP2-51, E5D-YP3-52, E5D-YP4, E5D-YP8, 22A3137, 22A2734, 22A2742, 22A4052, 21A3863AA, 22A5556, 22A4030,

(7) Seven Field Deviation Disposition Requests, FDDR Nos. LH1-007-78, LH1-015-79, LH1-042-80, LH1-178-80, LH1-163-81, KL1-115, and KL1-080,

(8) Six Field Disposition Instructions, FDI Nos. 12/42382, 35/42382, 82/42382, 25/31263, 20/31263, and 16/31263.

3. Findings

a. No deviations or unresolved items were identified in this area of the inspection.

b. It was observed by the inspector that the instructions for filling out the forms for Material Requests and Engineering Instructions were not too clear regarding who must sign these forms and what blocks must be filled in. It appears that more signatures are being supplied than is required by the instructions and some blocks are not being filled in which probably are not required. This should be reviewed by GE and will be reviewed again by the inspector during a future inspection.