



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

JUN 26 1985

Report No.: 70-1113/85-09

Licensee: General Electric Company
Wilmington, NC 28401

Docket No.: 70-1113

License No.: SNM-1097

Facility Name: General Electric Company

Inspection Conducted: June 11 - 14, 1985

Inspector: *G. L. Troup*
G. L. Troup

6/25/85
Date Signed

Approved by: *E. J. McAlpine*
E. J. McAlpine, Section Chief
Division of Radiation Safety and Safeguards

6/26/85
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 30 inspector-hours on site in the areas of nuclear criticality safety, operations review, maintenance and new facilities.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *W. W. McMahon, Manager, Quality Assurance
- *G. W. McKenzie, Acting Manager, Manufacturing Technology and Engineering Operations
- *R. A. Petelinkar, Manager, Site Operations and Materials Systems
- *C. M. Vaughan, Manager, Regulatory Compliance
- *B. F. Bentley, Manager, Fuel Chemical Operations
- *A. G. Dada, Manager, Chemical and Ceramic Engineering
- M. L. Faris, Manager, Major Projects
- D. W. Brown, Manager, Uranium Recycle Operation
- L. Roth, Manager, Chemical Equipment Engineering
- L. A. Divins, Manager, Chemical Processing
- J. R. Watkins, Acting Manager, Powder Production
- *R. L. Torres, Manager, Radiation Protection
- *W. C. Peters, Manager, Nuclear Safety Engineering
- J. T. Taylor, Sr. Nuclear Safety Engineer
- G. M. Bowman, Sr. Nuclear Safety Engineer
- S. P. Murray, Sr. Nuclear Safety Engineer
- *R. H. D. Foleck, Sr. Specialist - License Engineering
- B. S. Dunn, Specialist, Licensing Support
- *R. J. Keenan, Nuclear Safety Engineer

Other licensee employees contacted included technicians, operators, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 14, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee. The licensee stated that design, process and operational information associated with the Uranium Process Management Project (UPMP) would be considered company proprietary under the terms of 10 CFR 2.790.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Nuclear Criticality Safety (88015)

a. Facility Modification and Changes

The inspector reviewed four facilities change requests and the associated nuclear safety analyses. The inspector verified that the analyses were conducted using approved evaluation methods and that the analyses were verified by an independent reviewer. The inspector also verified that preoperational audits had been conducted prior to the issuance of the final approval by Nuclear Safety Engineering, and that a Nuclear Safety Release/Requirement (NSR/R) had been approved by the Area Manager and Nuclear Safety Engineering prior to issuance.

No violations or deviations were identified.

b. Nuclear Safety Analysis Methods

The inspector discussed the methods used to perform nuclear safety calculations with the cognizant individuals and verified that the methods used were in accordance with the licensee requirements. Computational methods which may be used and individuals designated as qualified to perform analyses and/or to perform the independent verification are specified in NSI E-4.0, "Criticality Safety Analysis Methods and Verification". A licensee representative informed the inspector that while certain methods are authorized for performing the calculations, they presently are not being used; three approved codes are presently used.

No violations or deviations were identified.

c. Nuclear Safety Audits

Sections 2.8.1 and 2.8.3 of the license application specify requirements for internal quarterly audits and bi-annual external audits. The inspector reviewed the written report for the first quarter internal audit conducted in March 1985 and an external audit conducted by the Quality Assurance and Reliability Operation (QARO) in May 1984. The inspector verified that the audit findings were documented and submitted to management, that corrective actions were documented, and each item closed after the adequacy was determined. The inspector determined that the second quarter audit had been performed in June 1985, although the final audit report had not been issued at the time of the inspection. An audit was also conducted by QARO in May 1985, but the report had not yet been received onsite.

No violations or deviations were identified by the inspector.

d. Criticality Alarm System

The annual calibration of the criticality alarm system was previously reviewed in inspection report 70-1113/85-07. The inspector discussed

the weekly functional test of the system with licensee representatives and reviewed the test results for the period April 15 - June 7, 1985.

No violations or deviations were identified.

e. SNM Containers

Table 13.7 of the license application lists the shipping containers authorized for use by the licensee. A licensee representative informed the inspector that no other containers were in use. During tours of the facility the inspector did not observe any shipping containers which were not listed in Table 13.7.

f. Procedures

The inspector reviewed the following procedures for performing nuclear safety analyses:

P/P 40-5, rev. 4 (1/14/85), Nuclear Safety Review System
 P/P 40-16, rev. 6 (modified 3/22/85), Nuclear Safety
 NSI E-1.0, rev. 8 (10/26/84), Nuclear Safety Review Records
 NSI E-3.0, rev. 9 (10/26/84), Nuclear Safety Review Requests
 NSI E-4.0, rev. 8, (9/6/84), Criticality Safety Analysis Methods
 and Verification

The inspector verified that the procedures were periodically reviewed as required by internal procedures, and that revised procedures had been reviewed and approved in accordance with the administrative requirements.

No violations or deviations were identified.

5. Operations Review (88020)

a. Tours

During the inspection, tours were made of various work areas to observe operations. Items reviewed or verified included:

- (1) Special nuclear material was stored in arrays on carts, conveyors, and process areas, and in designated storage locations in accordance with license requirements.
- (2) Differential pressure readings for filters and enclosures were within the authorized limits.
- (3) Housekeeping and industrial safety provisions in all areas was acceptable.
- (4) Unsafe geometry containers were authorized and controlled through administrative or mechanical controls.

- (5) Operating procedures (PRODs) were available in the various areas. Nuclear Safety Release/Requirements and Radiological Safety Instructions were also available.

- b. Compressed Gas Cylinders

The inspector observed approximately six compressed gas cylinders in a storage area which were not constrained by a rope or chain in accordance with good industrial safety practices. While these cylinders were inside of a locked, fenced area, the inspector noted that the other cylinders in the area, including those marked "EMPTY" were constrained. Licensee management representatives acknowledged this and stated that the cylinders would be constrained. The inspector had no further questions.

- 6. Maintenance (88025)

- a. The inspector discussed the conduct and control of maintenance activities with the cognizant managers. Basic procedural requirements are contained in SAR 340-84-JLH-27, "Request for MT&EO Maintenance Assistance." Specific requirements for work are specified in the Maintenance Work Request (routine or non-routine work) and the Radiation Work Permit. Nuclear and radiological safety requirements, as well as industrial safety requirements, are specified in Job Hazard Analysis documents.
- b. The cognizant managers also discussed the responsibilities between operations and maintenance for system alignment and preparation, cleanout of SNM, performance of work, testing and return to service. The inspector had no further questions.

- 7. Uranium Process Management Project (UPMP)

- a. The inspector toured the UPMP area and discussed the status of the various parts of the system. Because of the arrangement of the various subsystems, testing and startup can be done with the subsystem independently of other parts of the system.
- b. The inspector reviewed the nuclear safety analyses and draft Nuclear Safety Release/ Requirements for various components and subsystems. The inspector also reviewed the file "Documentation of UPMP Training to Date" which outlined the training received, including training at vendor facilities, by shift supervisors, operators, laboratory personnel, mechanics, instrumentation technicians and radiation protection personnel. A licensee representative also explained that operations and maintenance personnel are engaged in the check-out and testing of the system, which provides additional on-the-job training.

No violations or deviations were identified.