

August 7, 1998

General Electric Company
ATTN: Mr. J. E. Kline, Manager
Manufacturing
GE Nuclear Energy
P. O. Box 780
Wilmington, NC 28402

SUBJECT: NRC INSPECTION REPORT NO. 70-1113/98-02

Dear Mr. Kline:

This refers to the inspection conducted on July 13-17, 1998, at the Wilmington facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

Within the scope of the inspection, violations or deviations were not identified.

In accordance with 10 CFR 2.790, of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(original signed by
E. J. McAlpine)

Edward J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

Docket No. 70-1113
License No. SNM-1097

Enclosure: NRC Inspection Report

cc w/encl: (See page 2)

GE

2

cc w/encl:
 S. Murray, Manager
 Facility Licensing
 General Electric Company
 P. O. Box 780, Mail Code J26
 Wilmington, NC 28402

Mel Fry, Acting Director
 Division of Radiation Protection
 N. C. Department of Environmental
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-3415

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Handwritten signature of Edward J. McAlpine in cursive.

Edward J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1113

License No.: SNM-1097

Report No.: 70-1113/98-02

Licensee: General Electric Company
Wilmington, NC 28402

Facility Name: Nuclear Energy Production

Dates: July 13-17, 1998

Inspectors: D. Ayres, Senior Fuel Facility Inspector
D. Seymour, Senior Fuel Facility Inspector
R. Swatzell, Fuel Facility Inspector

Approved by: E. J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

General Electric Nuclear Energy
NRC Inspection Report 70-1113/98-02

The primary focus of this routine unannounced inspection was the evaluation of the licensee's conduct of plant operations, management controls, and environmental protection programs. The report covered a one week period and included the results of inspection efforts of three regional fuel facility inspectors.

Plant Operations

- The licensee's responses to the unusual incidents occurring since the last inspection appeared adequately focused on preventing recurrence.
- The incident involving loss of double contingency for moderation control in a moderation restricted area (MRA) was deemed a safety-significant, licensee-identified, non-cited violation (NCV) (NCV 98-02-01).

Management Controls and Organization

- Recent organizational changes were within the structural requirements of the license. The qualifications of the two newly appointed managers adequately met license requirements.
- The system for reviewing General Practices and Procedures (P/P) and Nuclear Safety Instructions (NSIs) was being adequately implemented, and safety committees adequately met license requirements.
- The licensee's system for conducting Nuclear Safety audits of the radiation safety and criticality safety programs was thorough, well-managed, and can be considered a program strength.

Environmental Protection

- The analytical results from the various environmental samples collected indicated that there was no radioactive material from plant operations accumulating or concentrating at the sample locations.
- The development and implementation of the Environmental Compliance Data Management System (ECDMS) is considered an Environmental Program strength.
- Internal Environmental Protection audits were scheduled and conducted as required by the License Application (LA). Due to the lack of supporting documentation, however, the inspectors could not conclude whether the four of the six audits were effective.

Enclosure

REPORT DETAILS

1. Summary of Plant Status

This report covered the efforts of three regional inspectors for a one week period. The Ammonium Diurante (ADU) and Dry Conversion Process (DCP) powder production facilities were being cleaned for the annual Special Nuclear Material (SNM) inventory listing scheduled for July 31, 1998. Pellet production, rod loading, bundle assembly, and uranium recovery continued operations prior to the inventory shutdown in those areas. The west nitrate waste lagoon was being cleaned out in preparation for it to be relined. There were no unusual plant operational occurrences during the onsite inspection.

2. Plant Operations (03) (IP 88020)

a. Review of Previous Events (03.07)

(1) Inspection Scope

Internal investigations for a number of unusual incidents were reviewed for adequacy of licensee responses and corrective actions to prevent recurrence.

(2) Observations and Findings

The inspector reviewed the licensee's Unusual Incident Report (UIR) concerning steam line pressure relief valves leaking into a moderation restricted area. The inspector discussed the details of the incident and the impact of the incident on criticality safety with licensee management. The inspector noted that the steam leak did not produce any measurable condensate and that the licensee's safety analysis determined the amount of uncontained water that could be present without producing a safety concern. The inspector found that the licensee's response to the incident was adequate.

The inspector reviewed two UIRs concerning the weighing of moderating material additives into DCP powder blends. The first of these incidents occurred when process control software would not operate properly while scanning a container of additive that was to be added to a powder blend. The operator bypassed the scanning function and manually entered information into the process control system as allowed per procedure. It was later noted that the additive was 30 grams more than called for by the blend plan. This overage amount was not enough to be a significant criticality safety concern, however the incident helped identify a weakness in the control software that was corrected in a timely manner. The licensee's response to the incident was considered adequate.

The second incident involving the weighing of moderating material additives occurred when the required weighing procedure was not followed. Since moderation is the only controlled parameter for nuclear criticality safety (NCS) in the licensee's moderation restricted areas (MRAs), dual controls on the amount of additives placed in a UO_2 powder blend must be used to demonstrate double contingency. Thus, moderating materials that are added to a blend must be weighed on two separate scale systems. During this incident, a supervisory operator found one of the two scale systems to be inoperable and subsequently added moderating material to a powder blend after weighing the additive on only one scale system. Upon discovery of the incident, the licensee issued a Bulletin 91-01 report for loss double contingency. The inspector observed that the licensee's corrective actions were adequate and included retraining and emphasizing the NCS controls associated with MRAs. The inspector found that since the incident was reportable under Bulletin 91-01, it was a safety significant event identified by the licensee. The inspector also found that the event was caused by the failure to adhere to approved procedures, and was thus, a violation of NRC requirements. This non-repetitive, licensee-identified and corrected violation is being treated as a NCV (NCV 98-02-01), consistent with Section VII.B.1 of the NRC Enforcement Policy.

The inspector reviewed an incident where maintenance work being performed on a boiler that provides steam to Ammonium Diuranate (ADU) calciners. During the work, the boiler was filling with water when a criticality (false) alarm sounded. The maintenance worker evacuated per emergency plan requirements without shutting off valves associated with the boiler. Excessive moisture flowed to the line No. 5 calciner and into a can of Uranium Dioxide (UO_2) powder. The corrective actions of reviewing their evacuation procedures and lockout/tagout requirements were still under investigation by the licensee.

The inspector also reviewed incident reports for other problem areas. The inspector observed that the blinding of stationary air sampler filters in the Uranium Recovery Unit (URU) was corrected by fixing chemical leaks in the area. The inspector observed that the inadvertent burning of plastic sheeting in a Calcium Fluoride (CaF_2) storage area occurred shortly after a problem was identified by NRC in the licensee's cutting and welding procedure, and was being properly focused upon by the licensee. The inspector observed that holes in the west nitrate lagoon liner were being corrected by the installation of a new liner. The inspector observed that a fire in a small vacuum cleaner used for cleaning zirconium fines resulted in the redesign of vacuuming equipment. The inspector observed that the

spraying of an operator with uranyl nitrate (UN) solution due to a failed component in URU was corrected by redesigning the system such that any subsequent failures would direct UN solution away from normal operator access areas. The inspector found that the licensee's responses to all of these incidents appeared adequate, but also noted that corrective actions involving administrative controls (retraining, revising procedures, etc.) may be more susceptible to recurrences of incidents.

(3) Conclusions

The licensee's responses to the unusual incidents occurring since the last inspection appeared to be adequately focused on preventing recurrence. Many corrective actions involve improvements in administrative controls that warrant continued tracking to identify potential recurring problems. One incident reviewed was deemed a safety-significant, licensee-identified, NCV (98-02-01).

b. Followup on Previously Identified Issues (92701 and 92702)

(1) Inspection Scope

Corrective actions to issues identified in previous inspection reports were reviewed for completion and adequacy.

(2) Observations and Findings

The inspector reviewed the final corrective actions associated with Inspector Followup Item (IFI) 97-08-02 involving unauthorized change to a pellet boat design. The inspector had identified in a previous inspection report (70-1113/98-01) that corrective actions to prevent recurrence was to include a review of other types of portable containers (in addition to pellet boats) used for uranium processing. The inspector observed that this review had been completed, and that the containers reviewed met the dimensions in the applicable criticality analyses. Therefore, IFI 97-08-02 is closed.

The inspector reviewed the corrective actions associated with violation (VIO) 98-01-01 involving the improper storage of unscanned drums of contaminated solvent. The inspector observed the content of the retraining effort for the personnel that handle and store unscanned drums. The inspector found that the retraining was adequate to minimize the likelihood of recurrence. Therefore, VIO 98-01-01 is closed.

The inspector discussed the progress on the higher level critique identified by the licensee as being needed for an incident involving the release of a contaminated component offsite without a proper survey being conducted. The completion of this critique was being tracked as IFI 98-01-04. The inspector found that the critique had not been completed due to a change in the personnel responsible for conducting the critique. The inspector observed that the completion of the critique was still active and being tracked in the licensee's regulatory commitment tracking system. This item will remain open.

The inspector noted that an in-office review of open items performed prior to this inspection showed that VIO 96-10-01 had not yet been closed in the NRC record system. A further review of inspection documents revealed that no response was required from the licensee for this violation because adequate corrective actions were verified during the inspection. This item is closed.

(3) Conclusion

Licensee actions associated with IFI 97-08-02 and VIO 98-01-01 have been adequately completed and are closed. VIO 96-10-01 was considered closed with no licensee response required. Actions associated with IFI 98-01-04 have not been completed and will remain an open item.

3. Management Organization and Controls (05) (IP 88005)

a. Organizational Structure (05.01)

(1) Inspection Scope

Changes in personnel responsibilities and functions occurring in the past year were reviewed to verify license requirements for structure and personnel qualifications were being met.

(2) Observations and Findings

The inspector reviewed recent changes in the licensee's organizational structure and new assignments of personnel to key positions with responsibilities important to safety. The inspector noted that the current organizational structure was not precisely as diagramed in the License Application (LA). A separate Nuclear Fuel General Manager position had been created that had previously been combined with the position of Vice President for GE Nuclear Energy. The inspector also noted that the Site Security and Emergency Preparedness Function actually reported to the Facility Licensing Manager instead of directly to the

Environment Health and Safety Manager as depicted in the LA. The inspector noted that the key positions important to safety listed in the LA were in place within the licensee's organization and essentially met the structural form depicted in the LA. The licensee indicated that the positions not shown on the organizational chart in the LA would be modified for accuracy as part of a future license amendment.

The inspector interviewed two managers that had recently assumed positions required in the LA. These positions included the Area Manager for radwaste handling and treatment operations and the plant Industrial Safety Manager. The inspector found that both new managers met the educational and experience requirements of their positions. The inspector also found that both managers were knowledgeable of their roles with respect to the plant's safety programs. The inspector noted that although industrial safety is not specifically mentioned in the LA, the Industrial Safety Manager would manage the Chemical and Fire Safety Function as described in the LA.

(3) Conclusions

Recent organizational changes were within the structural requirements of the LA, even though two current management positions were not included in the organizational chart in the LA. The qualifications of the two newly appointed managers adequately met license requirements.

b. Procedure Controls (05.02)

(1) Inspection Scope

The licensee's systems for reviewing General Plant Practices and Nuclear Safety Instructions (NSIs) were examined for consistency with license requirements.

(2) Observations and Findings

The inspector reviewed the licensee's system of Practices and Procedures (P/Ps) that implement the General Plant Practices. The inspector observed that according to the LA, each safety significant P/P was required to be reviewed within two years of the previous issue date. The inspector observed the timeliness of reviewing and issuing revisions to safety significant P/Ps and found no significant discrepancies.

The inspector reviewed an indexed list of all P/Ps and noted those procedures that were not identified as safety significant, and thus were on a four-year review cycle. The

inspector noted that one such procedure involved disposal of obsolete equipment and tools. The inspector observed that this procedure included a decision tree to determine whether or not the equipment/tools needed to be decontaminated and to which type of disposal site it was to be sent. The inspector indicated to the licensee that these types of decisions could be considered safety significant, and thus the procedure would be required to be on a two year review cycle. The inspector reviewed revision history of the procedure and found that although it had been on a four year review cycle for the past twelve years, the decision tree had not changed significantly in that time. Thus, the safety significant portion of the procedure was not affected by the fact that the procedure had been on a four year review cycle. However, the licensee agreed to review the safety significance of the procedure to determine if it should be on a two year review cycle in order to be consistent with the licensee's procedure for reviewing P/Ps.

The inspector examined the review and revision status of NSIs, which are procedures that govern the Radiation and Criticality Safety functional areas. The inspector observed that all NSIs were reviewed and reissued within the two year time frame required by the LA.

(3) Conclusions

The licensee's system for reviewing General P/Ps and NSIs was being adequately implemented.

c. Internal Reviews and Audits (05.03)

(1) Inspection Scope

The licensee's system for auditing operational safety programs was reviewed to assess adequacy and verify consistency with license requirements.

(2) Observations and Findings

The inspector reviewed licensee procedure P/P 40-06, "Regulatory Compliance Audits" and observed that, with one exception, the requirements therein were consistent with the requirements in the LA. The inspector found one discrepancy in that the procedure required record retention for at least two years while the LA required three years. The inspector observed that actual practice met the license requirements, and the procedural requirement was immediately corrected upon notification of licensee management.

The inspector reviewed the Nuclear Safety Quarterly Audits conducted in the past year. The inspector observed that all required Nuclear Safety audits were being performed each quarter. The inspector also observed that most Nuclear Safety audits were performed by Area Managers and resulted in numerous findings. The inspector found that this indicated the apparent thoroughness and depth of the audits. The inspector also observed that persons conducting these audits rotated areas of audit responsibility each quarter to provide a variety of experience in reviewing each area. The inspector found that this helped minimize the chances of overlooking potential safety significant items over the course of a year.

(3) Conclusions

The licensee's system for conducting Nuclear Safety audits of the radiation safety and criticality safety programs was thorough, well-managed, and is considered a program strength.

d. Safety Committees

(1) Inspection Scope

The functions of the licensee's safety committees were reviewed to verify consistency with license requirements.

(2) Observations and Findings

The inspector reviewed the meeting reports from the Wilmington Safety Review Committee (WSRC). The inspector observed that the WSRC meeting frequency, scope of activities, reporting of findings and recommendations, and document retention were all within license requirements.

The inspector reviewed procedure P/P 40-31, "Operational Radiation Safety Committee" and found it to be consistent with the LA. The inspector also reviewed the monthly Radiation Safety Committee minutes and found them to be consistent with license and procedural requirements for frequency, scope, membership, reporting, and record retention.

(3) Conclusions

The licensee's safety committees adequately meet requirements in the LA.

3. Environmental Protection (88045) (R2)

a. Monitoring Program Implementation, Results and Reports (R2.01, R2.02, R2.06)

(1) Inspection Scope

The licensee's Environmental Protection Program was reviewed to verify that program implementation and sample results were consistent with license requirements.

b. Observations and Findings

The inspectors reviewed results from a wide variety of samples collected and analyzed in 1997 and 1998 as part of the licensee's routine environmental monitoring program. The inspectors determined the licensee was collecting and analyzing environmental samples as required by their LA and supporting evaluations. The results reviewed by the inspectors indicated that the specified sampling frequencies and routine minimum detection levels for the analyses were met, with the exceptions noted below.

Two exceptions were identified by the inspectors during this review. The first involved the semiannual analyses for fluorides in vegetation. The inspectors identified that the Minimum Detection Level (MDL) specified in the LA (1 part per million (ppm)) was not met for four of the six samples analyzed in 1997 and 1998. Four sample results were reported as <20 ppm, <25 ppm, <30 ppm, and <30 ppm; the remaining two sample results were 32 ppm and 22 ppm. The inspectors observed that all of the reviewed sample results for fluorides in vegetation were well below the action level (AL) of 100 ppm.

The second exception was the apparent failure of the licensee to analyze for uranium in three of the F-series wells, as specified in the licensee's evaluation for these wells. The inspectors determined, based on discussions with the licensee and on a review of the licensee's procedures for sampling these wells, that the evaluation was in error, and that the licensee had never intended to analyze for uranium in the three wells. These two exceptions constituted violations of minor safety and environmental significance and are not subject to enforcement action. However, the inspectors will track the licensee's efforts to establish consistency with their license requirements as IFI 70-1113/98-02-02.

The inspectors noted that the licensee had implemented a data base management system called the Environmental Compliance Data Management System (ECDMS). The inspectors

observed that this program should allow for more efficient control of the environmental monitoring program. This system automatically tracked required sampling frequencies and exceedence of ALs, and facilitated sample result input and environmental report generation. The licensee was continuing to develop the capabilities of the system. The development and implementation of ECDMS was considered an Environmental Program strength.

The inspectors observed that the licensee was using a groundwater monitoring frequency model to systematically optimize the sampling frequencies of their environmental monitoring points. The inspectors observed that the model used inputs from the analysis of variables such as contaminant concentration levels, contaminant migration characteristics, distance to potential receptors, etc. The inspectors found that the sampling frequencies generated as a result of this modeling program were implemented into the licensee's environmental program.

The inspectors noted that ALs were specified in documented procedures for environmental monitoring parameters as appropriate, as required by the LA. This included the nitrate bearing liquids, and the process liquid onsite discharge. Action levels were also specified for most environmental samples in the licensee's ECDMS, the computer program used by the licensee to track and trend their environmental sampling and analyses. The inspectors noted the licensee completed environmental action level (EAL) reports for sample analyses that exceeded the specified AL. The inspectors reviewed selected EAL reports that documented elevated sample results that occurred in 1997 and 1998. Typically, the licensee's follow-up actions consisted of watching for a developing trend for the sample parameter. The inspectors noted that exceeding or reaching an AL did not require the licensee to take any action (procedurally or otherwise) other than filling out the EAL report. The inspectors indicated and the licensee acknowledged that other actions may need to be considered.

The inspectors also noted that the ALs in the ECDMS for the final process lagoon discharge point were extremely high when compared to typical sample results. The ALs were 30,000 and 100,000 picocuries per liter ($\mu\text{Ci/l}$) for gross alpha and gross beta, respectively. Typical values for these results were in the range of 10 to 100 $\mu\text{Ci/l}$. The licensee acknowledged that the inspectors' comments would be reviewed for consideration of changing these ALs.

The inspectors reviewed the groundwater monitoring results from wells installed down gradient from the northwest calcium fluoride (CaF_2) storage area relocation project.

This review followed a previous inspection report (70-1113/97-03) which identified elevated uranium concentrations in the down gradient wells. The inspectors reviewed the total uranium (ppm) results from wells CaF06A, CaF07A, and CaF12A. The inspectors found that this data showed the total uranium concentration (ppm) in groundwater down gradient from the former CaF₂ storage area had trended downward to levels of <0.02 ppm. Additionally, aggressive sampling (5 X 5 X 5 meter triangular survey; surface to one meter depth composites) of the northwest CaF₂ storage area was planned for final closure purposes. This sampling had been delayed due to the high water table which had been experienced in this area during 1998. The licensee tentatively planned to begin this sampling in October 1998.

The inspectors also noted that the locations of F Series Wells around the Fuel Manufacturing and Fuel Component Areas were not in accordance with Figure 10.5d of the LA. The figure identified the locations of an earlier set of F Series wells which were abandoned and/or replaced with new wells in mid-1997. The licensee indicated that this figure would be corrected.

c. Conclusions

Analytical results from the various environmental samples collected indicated that radioactive materials at the sample locations were within the required limits.

The development and implementation of the ECDMS was considered an Environmental Program strength.

2. Management Audits, Inspections, and Controls (R2.03)

a. Inspection Scope

The licensee's environmental protection internal audit program and its results were reviewed to evaluate the effectiveness of the Environmental Protection Program.

b. Observations and Findings

The inspector reviewed the quarterly audit records for internal environmental protection audits for 1997 and 1998, to date. The inspectors determined that an audit schedule was developed on an annual basis for 1997 and 1998, and that the audits were performed in accordance with documented practices, as required by the LA. Each of quarterly audits focused on a particular aspect of the Health and Safety program, including: stack sampling, river water monitoring, surface water discharge, ambient air, soil and vegetation sampling, ventilation maintenance, and chemical storage.

The inspectors noted that four of the six audits reviewed had no specific comments, findings, recommendations, or corrective actions. The inspectors could not determine the depth of review, or the effectiveness of the audits, because supporting documentation (specific audit plans, etc.) was not generated and/or maintained. The remaining two audit reports contained more information (recommendations and corrective actions), and appeared more thorough.

c. Conclusions

Internal Environmental Protection audits were scheduled and conducted as required by the License Application. Due to the lack of supporting documentation, however, the inspectors could not conclude whether the four of the six audits were effective.

4. Exit Interview

On July 17, 1998, the inspection scope and results were summarized with licensee representatives. The inspectors discussed in detail the routine program areas inspected, and the findings, including the potential Licensee-Identified Violation for loss of moderation controls. No dissenting comments were expressed by the licensee.

The licensee identified materials provided during the inspection as proprietary, although proprietary information is not contained in this report.

Subsequent to the inspection, NRC received the following report from the North Carolina Department of Environmental and Natural Resources, Division of Radiation Protection:

Report on: Environmental Radiation Surveillance around Brunswick Steam Electric Plant, Shearon Harris Nuclear Power Plant, McGuire Nuclear Station, and General Electric Uranium Fuel Fabrication Plant in North Carolina, January 1997 - December 1997. The report was submitted to the U.S. Nuclear Regulatory Commission for Contract NRC-29-83-627.

The environmental data contained in the above report will be reviewed by the NRC. Any identified issues will be addressed in a subsequent inspection. The review and follow up on issues in the report are being tracked as IFI 70-1113/98-02-03.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

- *D. Barbour, Team Leader, Radiation Protection
- *D. Brown, Team Leader, Environmental Programs
- *B. Crate, Manager, Industrial Safety
- *T. Crawford, Sr. Environmental Engineer
- *S. Dale, Compliance Auditor; Environment, Health & Safety
- *D. Dowker, Manager, Chemical Product Line
- *T. Flaherty, Manager, Dry Conversion Project
- R. Foleck, Senior Licensing Specialist
- *R. Keenan, Manager, Site Security and Emergency Preparedness
- G. Luciano, Area Manager, Fuel Support
- *A. Mabry, Program Manager, Radiation Safety Engineering
- *R. Martyn, Acting Manager, Facility Licensing
- *C. Monetta, Manager; Environment, Health & Safety
- *R. Pace, Manager, Facilities and Logistics
- *L. Paulson, Manager, Nuclear Safety
- *B. Robinson, Nuclear Safety Engineer
- *H. Shaver, Nuclear Safety Engineer
- *S. Smith, Radiation Safety
- *C. Tarrer, Leader, Configuration Management
- *K. Theriault, Manager, Fuel and Chemical Lab Quality
- *R. Troilo, Sr. Engineer
- *D. Turner, Engineer; Environment, Health & Safety
- *C. Vaughan, Acting Manager, Facility Licensing

Other licensee employees contacted included engineers, technicians, production staff, security, and office personnel.

*Denotes those present at the exit meeting on July 17, 1998.

INSPECTION PROCEDURES USED

- IP 88005 Management Organization And Controls
- IP 88020 Plant Operations
- IP 88045 Environmental Protection
- IP 92701 Followup
- IP 92702 Followup On Corrective Actions For Violations And Deviations

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

- 70-1113/98-02-01 NCV Licensee identified failure to follow procedure resulting in loss of double contingency for moderation control in the DCP moderation restricted area.

- 70-1113/98-02-02 IFI Establish consistency between procedures and the license for sampling requirements of F-series wells.
- 70-1113/98-02-03 IFI Review environmental data contained in the Report on: Environmental Radiation Surveillance around Brunswick Steam Electric Plant, Shearon Harris Nuclear Power Plant, McGuire Nuclear Station, and General Electric Uranium Fuel Fabrication Plant in North Carolina, January 1997 - December 1997 and address any identified issues during a subsequent inspection.

Closed

- 70-1113/96-10-01 VIO Failure to follow procedures in Chemet laboratory.
- 70-1113/97-08-02 IFI Review of higher level critique for unauthorized change to pellet boat design.
- 70-1113/98-01-01 VIO Failure to properly store unscanned drums containing radioactive materials per posted safety instructions.
- 70-1113/98-02-01 NCV Licensee identified failure to follow procedure resulting in loss of double contingency for moderation control in the DCP moderation restricted area.

Discussed

- 70-1113/98-01-04 IFI Review results of higher level critique for release of contaminated equipment.

ACRONYMS

ADU	Ammonium Diuranate
AL	Action Level
CaF ₂	Calcium Fluoride
DCP	Dry Conversion Process
EAL	Environmental Action Level
ECDMS	Environmental Compliance Data Management System
GE	General Electric
IFI	Inspector Follow-up Item
IP	Inspection Procedure
LA	License Application
MDL	Minimum Detection Level
MRA	Moderation Restricted Area
NCS	Nuclear Criticality Safety
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NSI	Nuclear Safety Instruction
P/P	Practices and Procedures
μCi/l	Picocuries Per Liter
ppm	Part Per Million

SNM
UIR
UN
UO₂
URU
VIO
WSRC

Special Nuclear Material
Unusual Incident Report
Uranyl Nitrate
Uranium Dioxide
Uranium Recovery Unit
Violation
Wilmington Safety Review Committee

U.S. Nuclear Regulatory Commission
 INSPECTION FOLLOW-UP SYSTEM (IFS)
 POWER REACTOR, FUEL FACILITY & VENDOR DATA ENTRY FORM
 OPEN NEW ITEMS ONLY - (non escalated)
 Region II

SITE NAME: General Electric Nuclear Energy

REPORT NO.:	UNIT	DOCKET NO.:
98-002	1	70-1113
	2	
	3	

SUBMITTED BY: David Ayres DATE: 7-31-98

REVIEWED BY: [Signature] DATE: 8/7/98

Report Transmitted Date: 8/7/98

Lead Responsible Inspector
 Last Name: Ayres RITS Initials: D X A

Responsible Org. Code: 9 2 3 4

ANY NEW ITEMS?
 No - Stop here
 Yes - Continue

Item Seq. No.: 01 Item Type: NICV Severity Level: 1 Supplement No.: 1

EA NO.

(Fill in the EA NO. if opening an 'EEI' item. The EA NO. can be obtained from EICS)

Title: Failure to Follow Procedure Resulting In Loss of Double Contingency For Moderation Control In MRA.

Inspection Procedure Number: 86020 SALP Functional Area: Cause Code: 10

Closeout Org. Code: 9 2 3 4

NOV Summary/Comments:

• NOTE: See back for CODES

Item Seq. No.: 02	Item Type: I F I	Severity Level:	Supplement	EA NO.
ITEM STATUS:	Unit 1:	Unit 2:	Unit 3:	(Fill in the EA NO. if opening an 'EEI' item. The EA NO. can be obtained from EICS)

Title: Establish Consistency Between Procedures and License for Sampling Requirements of F-Series Wells (110 Characters Max)

Inspection Procedure Number: 88045	SALP Functional Area:	Cause Code: 10	Closeout Org. Code: 9 2 3 4
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NOV Summary/Comments:

Item Seq. No.: 03	Item Type: I F I	Severity Level:	Supplement No.:	EA NO.
ITEM STATUS:	Unit 1:	Unit 2:	Unit 3:	(Fill in the EA NO. if opening an 'EEI' item. The EA NO. can be obtained from EICS)

Title: Review Report on Radiation Surveillance by North Carolina (110 Characters Max)

Inspection Procedure Number: 88045	SALP Functional Area:	Cause Code: 6.0	Closeout Org. Code: 9 2 3 4
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NOV Summary/Comments:

Review environmental data contained in the Report on: Environmental Radiation Surveillance around Brunswick Steam Electric Plant, Shearon Harris Nuclear Power Plant, McGuire Nuclear Station, and General Electric Uranium Fuel Fabrication Plant in North Carolina. January 1997 - December 1997 and address any identified issues during a subsequent inspection.

NOTE: See back Pa

**INSPECTION FOLLOW-UP SYSTEM (IFS)
SPEED CLOSEOUT / UPDATE FORM**

RESPONSIBLE INDIVIDUAL: David Ayres
REVIEWED BY: _____
FACILITY: General Electric - Wilmington, NC

7	0	-	1	1	1	3
		-				
		-				

AFFECTED UNITS (1/2/3)	ITEM TYPE*	INSPECTION ITEM NUMBER				CLOSEOUT / UPDATE REPORT NO.		INSPECTION END DATE	ITEM STATUS*	
		0	1	0	-	9	8			
	V	1	0	0	1	0	0	2	July 17, 1998	C
	V	1	0	0	1	0	0	2	July 17, 1998	C
	I	F	I	0	0	8	0	2	July 17, 1998	C
	N	C	V	0	0	2	0	2	July 17, 1998	C

(FOR ESCALATED ITEMS ONLY)

AFFECTED UNITS (1/2/3)	ITEM TYPE	EA NUMBER	NOV ID NUMBER	CLOSEOUT / UPDATE REPORT NO.	INSPECTION END DATE	ITEM STATUS*
	VIO	-		-		
	VIO	-		-		
	VIO	-		-		

*NOTE: See back for codes