UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

December 4, 2003

NMED Nos. 030764, 030694

Framatome ANP
ATTN: Mr. Robert E. Link
Plant Manager
2101 Horn Rapids Road
Richland, Washington 99352

SUBJECT: NRC INSPECTION REPORT NO. 70-1257/2003-008

Dear Mr. Link:

This report refers to the inspection conducted from November 4 through November 6, 2003, at the Richland 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 available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

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

Sincerely,

/RA/

David A. Ayres, Chief
Fuel Facility Inspection Branch 1
Division of Fuel Facility Inspection

Docket No. 70-1257
License No. SNM-1227

Enclosure: (See Page 2)

Enclosure: NRC Inspection Report

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-1257
License No.:	SNM-1227
Report No.:	70-1257/2003-008
Licensee:	Framatome ANP, Inc.
Facility:	Richland Facility
Location:	Richland, Washington
Dates:	November 4-6, 2003
Inspector:	O. López, Fuel Facility Inspector M. Crespo, Fuel Facility Inspector
Accompanied by:	J. Jiménez, Fuel Facility Inspector, trainee
Approved by:	David A. Ayres, Chief Fuel Facility Inspection Branch 1 Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Framatome ANP
NRC Inspection Report 70-1257/2003-08

This routine unannounced inspection focused on the observations and evaluation of the licensee's plant operations, management organization and controls, and transportation program. The inspection involved observation of work activities, a review of selected records, and interviews with plant personnel. The report covers a three day inspection effort by two regional fuel facility inspectors and one trainee.

Based upon the results of this inspection, selected activities at the facility were generally characterized by implementation of effective programs. The inspection identified the following aspects of the program as outlined below:

Plant Operations

- Plant activities were performed in accordance with regulatory requirements and license conditions. Housekeeping was adequate to not adversely affect the radiological safety or the facility emergency egress (Paragraph 2.a).

- Nuclear criticality safety analyses appropriately identified safety controls and addressed double continency. Nuclear criticality safety controls reviewed were adequately implemented and maintained (Paragraph 2.b).

- The licensee's change control system for facility modifications ensured that safety significant modifications were reviewed, approved, and documented (Paragraph 2.c).

- The licensee's procedure control was adequate to maintain current revisions in the process area. The training program for the facility was in the process of significant upgrades to standardize teaching techniques and subject matter throughout the facility. Operators in the process areas were qualified for their positions (Paragraph 2.d).

- The licensee adequately maintained criticality alarm coverage and control (Paragraph 2.e).

Management Organization and Controls

- The Chemical and Waste Operations and Technical Support and Maintenance managers met the education and experience requirements specified in the license application (Paragraph 3.a).

- The system to review and issue procedures met the license requirements. However, retraining had to be performed to emphasize the need for safety reviews when making changes to operating procedures (Paragraph 3.b).

- The criticality safety and radiation protection audits were performed as required by the license. Findings, observations, and non-routine events were reviewed by managers, and corrective actions were tracked until completion (Paragraph 3.c).

- The EH&S council meeting minutes were an in-depth review of the overall health and safety state of the facility. They also identified problem areas that required attention. The EH&S Council scope of review was consistent with Section 2.2.1 of the license application (Paragraph 3.d).

Transportation

- The licensee adequately loaded radioactive shipments according to procedures. The records for shipments were also properly maintained. Categorization of radioactive shipments was performed adequately (Paragraph 4.a).

- The licensee met the requirements in the Certificate of Compliance for use of the SP-1, SP-2, and SP-3 containers (Paragraph 4.b).

- Two transportation events were reviewed and determined to be of minor safety significance and properly addressed by the licensee (Paragraph 4.c).

Attachment:
List of Persons Contacted
Inspection Procedures Used
List of Items Opened, Closed, Discussed
List of Acronym

REPORT DETAILS

1. Summary of Plant Status

This report covered the efforts of two regional inspectors during a three day period. Fuel manufacturing operations and uranium recovery processes were ongoing at Framatome during the inspection period. There were no plant upsets or unusual operational occurrences during the inspection.

2. Plant Operations (Inspection Procedure (IP) 88020)

a. Plant Activities (O3.03)

(1) Inspection Scope

The inspectors reviewed operational and housekeeping activities associated with the fuel manufacturing areas and uranium recovery processes to determine if they were performed safely and in accordance with license requirements. The inspectors reviewed safety controls in the process area to determine if they were available and in good condition.

(2) Observations and Findings

During the plant tours, the inspectors noted that criticality safety limit cards, radiological signs, and procedures were properly posted or available to the operators. The inspectors did not observe any issues where the housekeeping could affect the radiological safety or emergency egress of the facility. The inspectors observed that plant personnel working in radiological control areas wore dosimetry and the proper personal protective equipment.

The inspectors examined the Dry Conversion Process (DCP), UO2 Building, Neutron Absorber Facility (NAF), and storage areas and noted that operators complied with approved written Nuclear Criticality Safety (NCS) limits and controls. The inspectors also observed proper spacing practices and controls in storage locations. Discussions with operation personnel illustrated the proper understanding of procedural and posting requirements.

(3) Conclusions

Plant activities were performed in accordance with regulatory requirements and license conditions. Housekeeping was adequate to not adversely affect the radiological safety or the facility emergency egress.

b. Safety Function (O3.02)
Maintenance of Nuclear Criticality System (O3.07)
Quality Assurance Programs (O5.05)

(1) Inspection Scope

The inspector reviewed criticality safety evaluations and selected processes to verify that criticality safety controls were present and maintained in a operable condition.

(2) Observations and Findings

The criticality safety evaluations for DCP, ammonium diuranate (ADU) Line 2, and NAF processes adequately addressed double contingency and other process safety parameters. The inspector reviewed engineered controls referenced in the evaluations such as moisture analyzers, neutron absorber controls, and safe geometry equipment. The inspector also verified that standard operating procedures included safety parameters and administrative controls as described in the safety evaluations.

Safety controls were adequately implemented and maintained. The licensee stated that the criticality safety group perform a monthly over check of the maintenance program to verify that maintenance had been perform on safety equipment. No safety issues were identified.

Conclusions

Nuclear criticality safety analyses appropriately identified safety controls and addressed double continency. Nuclear criticality safety controls reviewed were adequately implemented and maintained.

c. Configuration Control (O3.04)
Change Control (O3.05)

(1) Inspection Scope

The inspector reviewed the licensee's change control system for recent facility modifications to verify that safety significant modifications were reviewed, approved, and documented in accordance with their procedures.

(2) Observations and Findings

The inspectors discussed and reviewed with the licensee engineering change notices (ECN) related to the ADU line 2 calciner discharge modification and the installation of drains in high efficiency particulate air (HEPA) filter housings. The inspectors also walked down safety systems and compared portions of the Process and Instrumentation Diagram (P&ID) with the installed systems. The inspectors found that the P&ID accurately represented the installed equipment. The inspectors confirmed that modifications to safety systems were adequately controlled, and sufficient reviews were performed prior to installation. The ECN records adequately detailed the extent of the modifications. The inspectors noted that safety related equipment were included in the

licensee's Maintenance Management System and periodic functional tests were scheduled within the specified frequency.

(3) Conclusions

The licensee's change control system for facility modifications ensured that safety significant modifications were reviewed, approved, and documented.

d. Operating Procedures (O3.06), NCS Training (O3.08)

(1) Inspection Scope

The inspectors reviewed operating procedures to verify that the most current revisions were in place in the process area. The inspectors also reviewed the facility's training program to verify that operators were trained in the safety controls of the area prior to performing their duties.

(2) Observations and Findings

The inspectors noted that the procedures available to the operators were all contained in the computer terminals present throughout the manufacturing area. This system ensured that operators had access to only the most current revision of the procedure.

The inspectors also reviewed the facility's new training program/department. Each area of the facility was in the process of developing official training lesson plans in effort to standardize teaching techniques and subject matter throughout the facility. The inspectors noted this as an adequate upgrade to the facility.

The inspectors reviewed the training records for several operators currently working in the manufacturing areas to verify that they were qualified to perform their work. The operators reviewed were appropriately qualified for their positions, and no issues were noted.

(3) Conclusions

The licensee's procedure control system was adequate to maintain current revisions in the process area. The training program for the facility was in the process of significant upgrades to standardize teaching techniques and subject matter throughout the facility. Operators in the process areas were qualified for their position.

e. Criticality Alarm Systems (O3.10)

(1) Inspection Scope

The inspectors reviewed the locations for several of the criticality detectors to verify dual detector coverage and site coverage.

(2) Observations and Findings

The inspectors verified that the criticality alarm system was operable. The inspectors also reviewed the placement of the criticality detectors and noted site and dual coverage was maintained. The inspectors also reviewed the procedures for the functional test of the detectors and verified that it was performed at the appropriate intervals. No issues were noted.

(3) Conclusions

The licensee adequately maintained criticality alarm coverage and control.

f. Follow up on Previously Identified Issues (O3.13)

(Open) IFI 70-1257/2003-03-01: Review the licensee's investigation and follow-up on four licensee identified compliance issues involving 1) high radiation areas, 2) improper handling of caustic material resulting in a spill on the operator, 3) a NRC 10 CFR Part 71.95 reportable transportation incident for improper packaging for shipment, and 4) improper work planning on demolition of hoods containing asbestos.

The inspectors reviewed the corrective actions regarding the high radiation areas and had no safety issues. The transportation event was described below in paragraph 3.c and had no safety issues. The corrective actions for the remaining items were not complete, and therefore this item will remain open.

3. Management Organization and Controls (IP 88005)

a. Organizational Structure (O5.01)

(1) Inspection Scope

The inspectors reviewed changes in personal responsibilities and functions that had occurred for the past six months to verify that requirements in the license concerning personnel qualifications were being met.

(2) Observations and Findings

The inspectors discussed with the licensee the organizational changes that had occurred within the past six months. In June 2003, the manager of Chemical Operations assumed the position of Technical Support and Maintenance manager. The Waste Operations managers took over Chemical Operations. The inspectors verified

that the personnel involved met the education and experience requirements for their assigned responsibilities, functions, and authorities. No problems were identified.

(3) Conclusions

The Chemical and Waste Operations, and Technical Support and Maintenance managers met the education and experience requirements specified in the license application.

b. Procedure Controls (O5.02)

(1) Inspection Scope

The inspectors reviewed the licensee's system for revising and issuing procedures to verify that the safety significance aspects were properly controlled and approved by appropriate management.

(2) Observations and Findings

The inspectors reviewed selected standard operating procedures (SOP) and criticality safety specifications (CSS). The inspectors verified that changes to plant systems and field changes were captured in the corresponding area procedures. Also, no instances of outdated CSS were identified.

The inspectors observed that the appropriate safety management was included in the review and approval of procedure changes. However, the inspectors noted that a procedural addendum was written without the appropriate safety review. An unusual event (oxidation of powder in the NAF building) had prompted an engineer to issue a memo to operators of the area to perform certain actions if the oxidation was noted again. This memo was brought to the licensee's attention. The inspector verified that powder sent to that area subsequent to the event was already stabilized. Therefore, the procedure addendum was never implemented since powder oxidation had not recurred. The licensee recognized operating instructions were required to have a safety review prior to being implemented. The licensee initiated a condition report (#11215) to both officially modify the procedure and to retrain personnel on their Unusual Incident procedure to help in recognition of potential safety events and the need for a safety review associated with operating instructions.

(3) Conclusions

The system to review and issue procedures met the license requirements. However, retraining had to be performed to emphasize the need for safety reviews when making changes to operating procedures.

c. Internal Reviews and Audits (O5.03)

(1) Inspection Scope

The inspectors reviewed and discussed with the licensee the internal reviews and audits program in the areas of criticality safety and radiation protection to verify the licensee's compliance with Section 2.6 of their license, Internal Audits and Inspections. The inspectors also verified that findings, observations, and non-routine events were reviewed by managers and that corrective actions were tracked until completion.

(2) Observations and Findings

The license's Criticality Safety Audit Reports were reviewed for the past six months. These reports had the list of inspections done by the managers for specific areas, for each month. The information provided by these documents was in compliance with the License. Any outstanding issues or any new issues found were entered in to a computerized system as a Criticality Safety Corrective Action Report (CSCAR). Some of the resolved corrective actions presented in the CSCAR were reviewed as well as the licensee's process for implementing those corrective actions. The process was found to be adequate. In the area of radiation protection, a similar process was followed, but the results were presented to the Environmental, Health and Safety (EH&S) Council. The findings and corrective actions generated in the audits were tracked until completion using the licensee's Manufacturing Regulatory Commitment Tracking computer based system.

The inspectors conducted a review of licensee identified events that occurred over the last six months. Among the events reviewed was that of the oxidation of UO_2 powder in the Neutron Absorber Building (NAF) on June 10, 2003 (also discussed above in Section 3.b). At first, the event was not recognized as a safety event. However, the licensee quickly recognized the potential fire hazard of the event and initiated a condition report (CR). The CR process included a review by the safety manager, who then assisted in assigning an individual to address the issue. The inspectors concluded that the event was appropriately identified and investigated. The licensee had yet to finalize long term corrective actions. However, powder transferred to this area from the calciner now received additional processing to stabilize the powder. The inspectors noted no issues with the short term corrective actions.

(3) Conclusions

The criticality safety and radiation protection audits were performed as required by the license. Findings, observations, and non-routine events were reviewed by managers and corrective actions were tracked until completion.

d. Safety Committees (O5.04)

(1) Inspection Scope

The inspector reviewed and discussed with the licensee the minutes from the EH&S council to verify compliance with section 2.2.1 of the license.

(2) Observations and Findings

Section 2.2.1 of the license application, EH&S council, stated that the council shall convene at least quarterly to review various aspects of the safety program. The inspectors reviewed the meeting minutes for the past six months. These minutes summarized monthly safety reports that covered housekeeping and safety practices of the facility. Radiation protection was also included in these reports. Also, the minutes included information from the survey metrics used, such as findings from the audits and any observation / recommendations made from the audits. The licensee kept track of the recommendations made through their condition report program.

(3) Conclusions

The EH&S council meeting minutes provided an in-depth review of the overall health and safety state of the facility. They also identified problem areas that required attention. The EH&S Council scope of review was consistent with Section 2.2.1 of the license application.

4. Transportation (86740)

a. Preparation, Delivery, and Receipt of Packages for Shipment (R4.01), (R4.02), (R4.03) Records and Reports (R4.06)

(1) Scope

The inspectors observed the preparation of radioactive materials shipment to verify that licensee's performance was according to their procedures. The inspectors interviewed several licensee personnel to verify their training and knowledge of transportation requirements. The inspectors also discussed the categorization of radioactive material shipments with licensee personnel to verify that shipments were being packaged appropriately.

(2) Observations and Findings

The inspectors noted the loading of radioactive material and the release of the transportation vehicle was performed by the licensee personnel according to procedure. The inspector discussed with the employees involved in transportation the requirements for the shipping and receiving of material. The inspectors noted they were familiar with and knowledgeable of requirements and procedures for loading the vehicle.

The inspectors also reviewed the latest transportation shipping records (both foreign and domestic) and recent nuclear material transaction reports (NRC Form 741). The records for the shipments and transactions were complete and no issues were noted.

The inspector discussed with licensee personnel the categorization of waste packages for shipment off-site. The inspector noted no issues with the categorization of the waste packages.

(3) Conclusions

The licensee adequately loaded radioactive shipments according to procedures. The records for shipments were also properly maintained. Categorization of radioactive shipments was performed adequately.

b. Certificates of Compliance (CoC) (R4.04)

(1) Scope

The inspector reviewed the CoC for the model SP-1, SP-2, and SP-3 containers, the most used containers at the facility, to verify that the appropriate maintenance was being performed and that the CoC's were up-to-date.

(2) Observations and Findings

The inspector verified that the CoC for the model SP-1, SP-2, and SP-3 in possession by the licensee was the most current revision (Revision 17). The licensee was maintaining the CoC current and performing the appropriate maintenance on the containers in use. The inspector observed refurbishment of the containers and noted no issues.

(3) Conclusions

The licensee met the requirements in the CoC's for use of the SP-1, SP-2, and SP-3 containers.

c. Previous Identified Events (R4.07)

(1) Inspection Scope

Corrective actions for the following events were reviewed to determine the adequacy of licensee response actions:

- Nuclear Materials Event Database (NMED) No. 030764 in which an SP-1 package did not meet the CoC requirements.

- NMED No. 030694 in which Model B container containing fresh fuel did not meet the Model B certificate requirements.

(2) Observations and Findings

The inspector reviewed the licensee's corrective actions for the event in which a shipment of fuel in an SP-1 package did not meet the container's CoC requirements (NMED No. 030764). This event was item number 3 of IFI 70-1257/2003-03-01. The container lacked several of the 30 bolts required to bolt the container shut. The inspector reviewed the condition report regarding this issue. The licensee was designated the shipper of record for this shipment. However, the preparation of the shipment was handled offsite and with no oversight by licensee personnel. The corrective actions consisted of stopping any work orders for shipments from offsite for which they were the shipper of record. The inspector noted no issues with the corrective actions.

The inspector reviewed another transportation event in which it was noted that Model B containers were not meeting a clause in their CoC (NMED No. 030694). Fuel assemblies shipped in Model B containers had recently been modified to use a different type of zirconium alloy then the one specified in the certificate. The change was minor and did not affect the safety of the shipping. Once noted, the licensee submitted a change request to refer to zirconium alloy in general instead of specifying which alloy type. These corrective actions addressed the error, therefore no safety issues were noted.

(3) Conclusions

The two transportation events were of minor safety significance and were properly addressed by the licensee.

5. Exit Interview

The inspection scope and results were summarized on November 6, 2003, with those persons indicated in the Attachment. Although proprietary documents and processes were occasionally reviewed during this inspection, the proprietary information is not included in this report. Dissenting comments were not received from the licensee.

ATTACHMENT

1. PARTIAL LIST OF PERSONS CONTACTED

Licensee

D. Parker, Manager, Environmental Health, Safety & Licensing
S. Wilkerson, Vice President, Operations
L. Tupper, Manager, Quality Assurance
L. Maas, Manager, Licensing and Compliance
C. Manning, Manager, Criticality Safety
J. Davis, EHS&L, Principal Engineer
C. Ward, Manager, Plant Engineering
V. Gallacher, Manager, Chemical and Waste
S. Dorio, Supervisor, Pellets and Bundle
C. Perkins, Manager, Operations
T. Longmire, Manager, Training

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

2. INSPECTION PROCEDURES USED

IP 88020	Regional Nuclear Criticality Safety Inspection Program
IP 88005	Management Organization and Controls
IP 86740	Transportation

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Description
70-1257/2003-03-01	Open	Review the licensee's investigation and follow-up on four licensee identified compliance issues involving 1) high radiation areas, 2) improper handling of caustic material resulting in a spill on the operator, 3) a NRC 10 CFR Part 71.95 reportable transportation incident for improper packaging for shipment, and 4) improper work planning on demolition of hoods containing asbestos (Paragraph 4.c).

4. LIST OF ACRONYMS USED

ADU	Ammonium Diuranate
IP	Inspection Procedure
CFR	Code of Federal Regulations
CoC	Certificates of Compliance
CR	Condition Report
CSCAR	Criticality Safety Corrective Action Report

CSS	Criticality Safety Specifications
DCP	Dry Conversion Process
ECN	Engineering Change Notices
EH&S	Environmental Health and Safety
HEPA	High Efficiency Particulate Air
NAF	Neutron Absorber Building
NCS	Nuclear Criticality Safety
NMED	Nuclear Materials Event Database
P&ID	Process and Instrumentation Diagram
SOP	Standard Operating Procedures