



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8931

May 27, 2004

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

SUBJECT: NRC INSPECTION REPORT NO. 70-1257/2004-002

Dear Mr. Link:

This report refers to the inspection conducted from April 26-29, 2004, 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 2.390 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

cc w/encl:

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PUBLIC DOCUMENT (circle one):    YES    NO

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NAME	D.Ayres	A. Gooden	W. Britz	N. Rivera	D. Morey
DATE	5/27/04	5/27/04	5/27/04	5/27/04	5/27/04
E-MAIL COPY?	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1257

License No.: SNM-1227

Report No.: 70-1257/2004-002

Licensee: Framatome ANP, Inc.

Facility: Richland Facility

Location: Richland, Washington

Dates: April 26-29, 2004

Inspectors: W. Britz, Fuel Facility Inspector  
N. Rivera, Fuel Facility Inspector  
D. Morey, Senior Criticality Safety Inspector, NRC-HQ

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

Enclosure

## EXECUTIVE SUMMARY

### Framatome ANP NRC Inspection Report 70-1257/2004-002

This routine announced inspection was conducted in the areas of plant operations, maintenance and surveillance, and the status of open items. The inspection involved observation of work activities, a review of selected records, and interviews with plant personnel. The inspection identified the following aspects of the licensee programs as outlined below:

#### **Plant Operations**

- The license had established an adequate management and administrative program to support the criticality safety program (Paragraph 2.a).
- Administrative and engineering safety controls were adequately implemented and maintained (Paragraph 2.b).
- Plant activities were performed safely and in accordance with license requirements. No significant housekeeping issues were observed (Paragraph 2.c).
- Nuclear criticality safety change control and configuration were adequate. Safety controls reviewed were adequately implemented and maintained (Paragraph 2.d).
- The procedure control system was adequate to maintain current revisions in the process area. The standard operating procedures provided guidance to the operators for abnormal conditions (Paragraph 2.e).
- Operators in the process areas were qualified to perform the position assigned (Paragraph 2.f).
- The licensee was conducting an adequate inspection, audit and corrective action program for operations and criticality safety (Paragraph 2.g).
- The licensee adequately maintained the criticality alarm system (Paragraph 2.h).
- The inspectors determined that corrective actions were complete for four of five violations identified in inspection report 70-1257/2002-003 and may be closed. Licensee corrective actions regarding document control improvement were not well defined and will continue to be tracked (Paragraph 2.i).
- The inspectors determined that corrective actions are complete for two inspection follow-up items identified in inspection report 70-1257/2001-005, and the items may be closed (Paragraph 2.j).

#### **Maintenance and Surveillance**

- The conduct of maintenance and construction observed was adequately performed by knowledgeable and qualified individuals to ensure its availability and reliability (Paragraph 3.a).

- The work control procedures for maintenance activities reviewed were properly approved by licensee management, and included instructions for performing maintenance activities and for conducting post-maintenance functional testing of the equipment (Paragraph 3.b).
- The licensee had established an adequate tracking system for the functional tests and calibrations for safety systems (Paragraph 3.c).

Attachment:

List of Persons Contacted

Inspection Procedures Used

List of Items Opened, Closed, Discussed

List of Acronyms

## REPORT DETAILS

### **1. Summary of Plant Status**

This report covered the period of April 26-29, 2004. The plant was resuming operation after being shutdown for uranium inventory. The dry conversion, ammonium diuranate (ADU), pelletizing, solid waste uranium recovery (SWUR), nuclear absorber fuel (NAF) rod fabrication facility and the waste streams were ongoing at Framatome during the inspection period. The fuel bundle assembly area was not operational. There were no plant upsets or unusual operational occurrences during the inspection.

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

#### **a. Management Administration and Practices (03.01)**

##### **(1) Inspection Scope**

The inspectors reviewed the management and administrative practices for nuclear safety criticality.

##### **(2) Observations and Findings**

The inspectors reviewed the license and license application requirements for implementation of the nuclear safety criticality program. The program was determined to be implemented in the requirements of the licensee's safety manual and the plant procedures. The flow down of the requirements from the criticality safety analysis to the criticality safety specifications and the criticality safety postings was determined to be in place and operational. Criticality safety was found to be incorporated into the management process and safety meetings conducted at the facility. The licensee conducted periodic audits of the implementation of the criticality safety program. An independent assessment of the criticality safety function was conducted periodically. The inspectors had no issues with the management and administrative program supporting the criticality safety program.

##### **(3) Conclusions**

The license had established an adequate management and administrative program to support the criticality safety program.

#### **b. Nuclear Criticality Safety Function (O3.02)**

##### **(1) Inspection Scope**

The inspectors reviewed portions of the criticality safety analyses (CSA) for the ADU process off-gas and dry conversion vaporization system to verify that safety controls were present and maintained in an operable condition.

(2) Observations and Findings

The CSAs for both processes adequately addressed double contingency and other process safety parameters. The inspectors also verified that standard operating procedure (SOP) included safety parameters and administrative controls as described in the safety evaluations. Selected portions of the process and instrumentation diagram (P&ID) of the ADU process were reviewed. The inspectors verified that safety controls were identified, implemented and maintained. No significant safety issues were identified.

(3) Conclusions

Administrative and engineering safety controls were adequately implemented and maintained.

c. Plant Activities (O3.03)

(1) Inspection Scope

The inspectors reviewed operational and housekeeping activities associated with the fuel manufacturing areas to determine that were performed safely and in accordance with license requirements.

(2) Observations and Findings

The inspectors observed operations in the fuel manufacturing areas during plant tours. Criticality safety limit cards, radiological signs, and procedures were properly posted and available to the operators. The inspectors verified several criticality safety limit cards in use were current. Activities were performed safely and in accordance with approved plant procedures. There were no significant issues observed where the housekeeping could affect the radiological safety or emergency egress of the facility.

(3) Conclusions

Plant activities were performed safely and in accordance with license requirements. No significant housekeeping issues were observed.

d. Configuration Control (O3.04)

Nuclear Criticality Safety Change Control (O3.05)

Maintenance of Nuclear Criticality Safety Control Systems (O3.07)

(1) Inspection Scope

The inspectors 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 the regulatory requirements. Also, the inspectors reviewed that criticality safety controls were present and maintained in an operable condition.



(2) Observations and Findings

The inspectors reviewed with the licensee engineering change notices (ECNs) related to the ADU process off-gas and dry conversion vaporization system modification. The inspectors also walked down safety systems and compared portions of the P&ID with the installed systems. No significant issues were identified. Also, the inspectors reviewed other related ECNs to confirm 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 was included in the licensee's Maintenance Management System periodic functional tests were scheduled within the specified frequencies, and the system was adequately implemented and maintained. No safety issues were identified.

(3) Conclusions

Nuclear criticality safety (NCS) change control and configuration were adequate. Safety controls reviewed were adequately implemented and maintained.

e. Operating Procedures (O3.06)  
Emergency Response (O3.11)

(1) Inspection Scope

The inspectors verified that SOPs provided for NCS precautions on abnormal conditions, safety parameters and administrative controls as described in the safety evaluations, and for emergency shutdown. Also, the inspectors verified that the most current revision of the SOPs was available to the operators in the process area.

(2) Observations and Findings

The inspectors reviewed SOPs described in the criticality safety evaluations and found that the safety parameters and administrative controls were included. The SOPs provided instructions to the operators for emergency shutdown and NCS precautions on abnormal conditions. 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. If the computer terminal failed to access the SOPs, the inspectors confirmed through interviews with the operators that there were other mechanisms to access the current procedures. No problems were noted.

(3) Conclusions

The procedure control system was adequate to maintain current revisions in the process area. The SOPs provided guidance to the operators for abnormal conditions.

f. Nuclear Criticality Safety Training (O3.08)(1) Inspection Scope

The inspectors reviewed training records to verify that operators were trained in the safety controls of the area prior to performing the work assigned.

(2) Observations and Findings

The inspectors reviewed the training records for six operators currently working in the manufacturing areas. The operators reviewed were appropriately qualified for the position assigned. No problems were noted.

(3) Conclusions

Operators in the process areas were qualified to perform the position assigned.

g. Operations Safety Inspections, Audits, and Investigations (O3.09)(1) Inspection Scope

The inspectors reviewed the safety audits and non-conformance reports made for plant operational and criticality safety.

(2) Observations and Findings

The inspectors reviewed the following safety audits: the annual review of effectiveness of the laboratory chemical hygiene and safety plan; the dangerous waste management review of satellite waste containers, ammonium recovery facility, lagoons and waste storage pad; the annual lock and tag review; the annual confined space permit review; the crane and hoist program review; the annual outside construction contractor safety program review; and the annual hazardous communication review. The inspectors discussed the operations and safety reviews conducted by management which included a review of the 2004 monthly safety inspection schedule by area and supervisor. The monthly safety inspection schedule included a check list which may be used as an aid in the inspection. The inspectors reviewed the condition reports (CRs) and the preventive/corrective action reports in support of previous violations. The inspectors had no issues with the audits and corrective action reports.

(3) Conclusions

The licensee was conducting an adequate inspection, audit and corrective action program for operations and criticality safety.

h. Criticality Alarm Monitoring System (O3.10)  
Maintenance of Nuclear Criticality Safety Control Systems (O3.07)

(1) Inspection Scope

The inspectors reviewed the maintenance and calibration records of the criticality detectors to verify that they were performed in accordance with regulatory requirements.

(2) Observations and Findings

The inspectors reviewed the procedures for the functional test of the detectors and verified that it was performed at the appropriate intervals. The inspectors also reviewed the calibration records for the criticality detectors to ensure that they were performed at the required frequency. No issues were noted.

(3) Conclusions

The licensee adequately maintained the criticality alarm system.

i. Follow-up on Previously Identified Issues on Inspection Report (IR) 2002-003 (O3.12)

(1) Inspection Scope

The inspectors reviewed licensee corrective actions for violations associated with the failure to comply with NCS controls for an uranium dioxide (UO<sub>2</sub>) transport drum as identified in reactive team IR 70-1257/2002-003 dated June 13, 2002, and Notice of Violation dated August 28, 2002. The violations addressed an event that had occurred when an operator placed UO<sub>2</sub> powder in a powder transport drum that did not have a required neutron poison insert. The inspectors interviewed licensee managers and engineers regarding specific corrective actions and reviewed closure packages for completed items. The inspectors reviewed all eighteen corrective actions committed to by the licensee for the five violations. The inspectors reviewed selected aspects of the following documents:

- EMF-38 Revision 3, "Criticality Safety Specifications and Limit Cards - General Information," July 5, 2002
- EMF-30 Revision 45, "Safety Manual Chapter 3 - NCS Standards," dated March 30, 2004.
- EMF-30 Revision 45, "Safety Manual Chapter 3: NCS Standards - Section 8 Training," dated March 30, 2004.

(2) Observations and Findings

(Closed) Violation (VIO) 70-1257/2002-003-01 and VIO 70-1257/2002-03: Failure to maintain double contingency control for criticality safety, and operator failure to follow procedure requiring drum inspection and management failure to provide adequate supervision. These violations involved the failure to maintain double contingency for a powder handling drum when an operator did not perform a required procedural step. The licensee identified management and supervisory accountability and worker training

and qualification as contributory causes of the violations. The licensee had identified nine corrective actions relative to both violations with the focus on clarification of staff and management expectations, upgrading work procedures, establishing a training department, and reducing reliance on temporary employees. The inspectors observed that all five commitments related to clarifying and enforcing staff and management expectations were completed as committed. The inspectors noted that the licensee had established a separate training department which completed the corrective action. With the establishment of the training department, the licensee had further clarified the ultimate corrective action for training to include upgrading all work station qualification guide training. This action would more completely address the contributory cause of the violations relative to training deficiencies and will be discussed further in IR 70-1257/2004-202. The licensee had developed a long-term program to upgrade SOPs and implemented a standard work instruction (SWI) consisting of a laminated card summarizing key operating instructions with photographs of equipment and controls. The inspectors determined that the licensee upgrades included measures which effectively address the contributory causes of the violations including procedure enhancements, work station aids (e.g., SWIs) with photographs and overall simplification. The inspectors determined that the procedure upgrades appropriately addressed the contributory cause of the violations relative to procedures by clarifying work instructions and making them readily available in the work place. Because procedure upgrades were on schedule for completion by May 1, 2005 and clearly addressed the underlying event, the inspectors concluded that the violations may be closed prior to completion of all upgrades. These violations were closed.

(Discussed) VIO 70-1257/2002-003-02: Failure to maintain configuration control for criticality safety. This violation concerned the failure to maintain configuration control when the licensee modified a piece of equipment used to handle fissile material by removing an engineered safety feature and allowing the equipment to be returned to service. The licensee identified five corrective actions with a focus on workplace distractions, processing ECNs, and improving document control. The inspectors determined that the licensee had completed the commitment to develop a means to routinely identify and address distractions in the workplace. Inspectors walkthroughs of plant operations did not identify additional deficiencies relative to workplace distractions.

The licensee had a long term corrective action to implement document control improvements scheduled for completion May 1, 2005. The inspectors determined that the licensee planned to implement a new computerized document control system which was expected to eliminate sequential processing of safety basis documentation and operating procedures and significantly improve control of safety basis flowdown to operators. The inspectors identified a deficiency relative to requirement flowdown and document control during the inspection which will be discussed in IR 70-1257/2004-202. The identified deficiency and the lack of clear written commitments regarding the final document control system supported the inspectors' conclusion that corrective actions relative to document control improvement were not adequately implemented to assure that the contributory cause of the event would be addressed. This violation remained open.

(Closed) VIO 70-1257/2002-003-04 and VIO 70-1257/2002-05: Failure to identify necessary criticality safety controls in the CSA and CSS, and failure to include CSA and CSS requirements in the SOP. These violations concerned the failure of the CSA to identify NCS controls required to preclude use of 45-gallon drums without the required neutron absorbing insert and assure that the identified controls were incorporated into an appropriate work procedure. The licensee had committed to four corrective actions to resolve these violations including requiring NCS staff to walk down new/revised criticality safety specifications (CSSs), upgrading NCS postings, implementing a philosophy to reduce administrative NCS controls, and evaluating current administrative controls during the ISA development process. The inspectors determined that the licensee had developed a new CSS format which documented an adequate review of new/changed CSS requirements by the responsible NCS engineer. The inspectors determined that the new CSS format adequately addressed the underlying contributory cause of the event regarding CSS implementation. The licensee had implemented a long-term corrective action to upgrade NCS postings to clarify requirements and had completed approximately 90 of 230 postings. The inspectors determined that NCS postings were on schedule to be completely upgraded by December 31, 2004 and would adequately address the contributory cause of the event regarding posted NCS requirements. The inspectors determined that the licensee had incorporated its philosophy to reduce administrative controls into its strategic plan, which fully addressed the commitment to implement a philosophy. The licensee was currently upgrading all CSAs as part of the ISA development process and was scheduled to complete the upgrades by October 18, 2004. The inspectors noted NCS control improvements in upgraded CSAs as evidence that the ISA process was performing an adequate screening of administrative controls. The inspectors determined that the above actions completed corrective action commitments for the violations and effectively addressed the contributory causes of the event. These violations were closed.

(3) Conclusions

The inspectors determined that corrective actions were complete for four of five violations identified in IR 70-1257/2002-003 and may be closed. Licensee corrective actions regarding document control improvement were not well defined and would continue to be tracked.

j. Follow-up on Previously Identified Issues on IR 2001-005 (O3.12)

(1) Inspection Scope

The inspectors reviewed licensee actions to resolve Inspection Follow-up Items (IFIs) from IR 70-1257/2001-005 dated October 12, 2001. The inspectors interviewed licensee managers and engineers regarding specific corrective actions and performed a walkdown to review equipment installation. The inspectors reviewed selected aspects of the following documents:

- CSS P97,230 Revision 1, "ELO Scrubber System," dated August 2, 2002
- CSS P97,185 Revision 1, "Raffinate Treatment Process," dated January 8, 2003
- EMF-2670 Revision 2, "Nuclear Criticality Safety Validation Document," dated March 10, 2004.

(2) Observations and Findings

(Closed) IFI 70-1257/2001-005-02: Tracks licensee action to fault test single PLCs controlling criticality safety interlocks. This item tracked licensee actions to fault test single process logic controllers (PLC) controlling criticality safety interlocks. Two situations were identified, in Lagoon Uranium Recovery/Solids Processing Facility (LUR/SPF) and Mop Powder Dissolution, where PLCs controlling NCS interlocks had not been fault tested after installation. The inspectors reviewed documentation that the licensee had successfully developed and conducted an in-place fault test demonstrating the expected fault action for the systems. This item was closed.

(Closed) IFI 70-1257/2001-005-03: Tracks licensee modifications to the raffinate criticality safety controls to assure failsafe shutdown of the system. The raffinate system in the ELO (engineering laboratory operations) Building contains interlocks controlled by computer to shutdown on high uranium concentration or high pH. The inspectors observed a PLC that had been installed to activate an audible alarm to notify operators in the event the computer controlling the raffinate NCS interlocks failed. This item was closed.

(3) Conclusions

The inspectors determined that corrective actions are complete for two inspection follow-up items identified in IR 70-1257/2001-005, and the items may be closed.

**3. Maintenance/Surveillance (IP 88025)**

a. Conduct of Maintenance (F1.01)

(1) Inspection Scope

The conduct of maintenance on safety significant equipment and qualification of maintenance personnel were reviewed to verify that maintenance was adequately performed by knowledgeable individuals according to approved procedures, to ensure the proper operation of the equipment upon completion of the maintenance work.

(2) Observations and Findings

The inspectors observed maintenance work performed in the dry conversion facility and in the uranium scrap recovery area and the construction work in the new facility for blended down uranium. The inspectors interviewed the staff (operations, maintenance and engineering) performing the work. The inspectors noted that the staff was knowledgeable of the equipment and of the procedures. The inspectors verified that functional testing was performed prior to returning the components to operational status. The inspectors interviewed the individuals performing and overseeing the work, and noted that the individuals had detailed knowledge of the equipment, the work orders, and the safety controls impacted by the maintenance. Maintenance work permits were posted in all observed areas and the work was being performed in accordance with the procedures.

(3) Conclusions

The conduct of maintenance and construction observed was adequately performed by knowledgeable and qualified individuals and in accordance with the procedures to ensure its availability and reliability.

b. Work Control Procedures (F1.02)  
Work Control Authorizations (F1.03)

(1) Inspection Scope

Work control procedures for maintenance activities were reviewed to verify that they were properly approved by licensee management, and included instructions for performing maintenance activities and for conducting post-maintenance functional testing of the equipment.

(2) Observations and Findings

The inspectors reviewed the revised procedures for ECN construction and modification dated March, 2004; maintenance work permit dated October, 2003; design document approval for design and engineering dated October, 2003; general generic criticality safety required administrative controls dated October, 2003; maintenance procedure for working on UF<sub>6</sub> (uranium hexafluoride) and HF (hydrofluoric acid) related systems dated July, 2003. The inspectors observed that the procedures and work orders included adequate descriptions of the work to be performed.

(3) Conclusions

The work control procedures for maintenance activities reviewed were properly approved by licensee management, and included instructions for performing maintenance activities and for conducting post-maintenance functional testing of the equipment.

c. Surveillance Testing (F1.06)  
Calibrations of Equipment (F1.07)

(1) Inspection Scope

The inspectors reviewed calibrations and functional test records and the tracking system for required tests and calibrations to determine compliance with the license.

(2) Observations and Findings

The inspectors reviewed several maintenance calibrations and checks on safety systems to determine compliance with the license. Instruments with requirements to be tested by a specified date were being tested as required by the schedule. The preventive maintenance (PM) and instrument repetitive maintenance (IRM) items reviewed were properly tracked and documented. Functional tests were performed prior

to returning equipment into service. Required tests reviewed were performed according to procedural requirements. No problems were noted.

(3) Conclusions

The licensee had established an adequate tracking system for the functional tests and calibrations for safety systems.

**4. Exit Interview**

The inspection scope and results were summarized with licensee management on April 29, 2004, and during a telephone conversation on May 26, 2004, 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

- \*R. Burklin, Manager, Radiation Protection
- \*V. Gallacher, Manager, Chemical and Waste
- \*D. Grandemange, Manager, Project Management and Planning
- S. Horton, Engineer, Criticality Safety
- \*M. Law, Manager, Analytical Services
- \*R. Link, Site Manager
- \*L. Maas, Manager, Licensing and Compliance
- \*C. Manning, Manager, Criticality Safety
- J. Morales, Shift Supervisor, Chemical Operations
- \*D. Noss, Supervisor, MC&A
- #\*D. Parker, Manager, Environmental Health, Safety & Licensing
- \*J. Payne, Manager, Technical Support and Maintenance
- C. Perkins, Manager, Operations
- \*T. Probasco, Manager, Safety, Security, and Emergency Preparedness
- \*S. Slattery, MC&A
- \*L. Tupper, Manager, Quality Assurance
- \*S. Wilkerson, Vice President, Operations

\*Attended exit meeting on April 29, 2004.

#Participated on telephone call on May 26, 2004.

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

**2. INSPECTION PROCEDURES USED**

- IP 88020      Regional Nuclear Criticality Safety Inspection Program
- IP 88025      Maintenance and Surveillance

**3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
70-1257/2002-003-01	Closed	VIO	Failure to Maintain Double Contingency Control for Criticality Safety
70-1257/2002-003-02	Discussed	VIO	Failure to Maintain Configuration Control for Criticality Safety
70-1257/2002-003-03	Closed	VIO	Operator Failure to Follow Procedure Requiring Drum Inspection and Management Failure to Provide Adequate Supervision

70-1257/2002-003-04	Closed	VIO	Failure to Identify Necessary Criticality Safety Controls in the CSA and CSS
70-1257/2002-003-05	Closed	VIO	Failure to Include CSA and CSS Requirements in the SOP
70-1257/2001-005-02	Closed	IFI	Tracks Licensee Action to Fault Test Single PLCs Controlling Criticality Safety Interlocks
70-1257/2001-005-03	Closed	IFI	Tracks Licensee Modifications to the Raffinate Criticality Safety Controls to Assure Failsafe Shutdown of the System

#### 4. LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access Management System
ADU	Ammonium Diuranate
BLEU	Blended Low Enriched Uranium
CFR	Code of Federal Regulations
CR	Condition Report
CSA	Criticality Safety Analyses
CSS	Criticality Safety Specifications
ECN	Engineering Change Notices
ELO	Engineering Laboratory Operations
HF	Hydrofluoric Acid
IFI	Inspection Follow-up Item
IP	Inspection Procedure
IR	Inspection Report
IRM	Instrument Repetitive Maintenance
ISA	Integrated Safety Analysis
LUR/SPF	Lagoon Uranium Recovery/Solids Processing Facility
NAF	Nuclear Absorber Fuel
NCS	Nuclear Criticality Safety
NRC	Nuclear Regulatory Commission
P&ID	Process and Instrumentation Diagram
PARS	Publicly Available Records System
PLC	Process Logic Controller
PM	Preventive Maintenance
SNM	Special Nuclear Material
SOP	Standard Operating Procedures
SWI	Standard Work Instruction
SWUR	Solid Waste Uranium Recovery
UF <sub>6</sub>	Uranium Hexafluoride
UO <sub>2</sub>	Uranium Dioxide
VIO	Violation