



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

November 26, 2002

Mr. Robert E. Link, Site Manager
Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, Washington 99352

SUBJECT: NRC INSPECTION REPORT 70-1257/02-07

Dear Mr. Link:

On November 4-8, 2002, the NRC conducted a routine inspection at the Framatome ANP facility in Richland, Washington. The purpose of the inspection was to determine whether activities authorized by your license were conducted safely and in accordance with NRC requirements. The program area examined during the inspection was emergency preparedness. Within that area, the inspection consisted of a selective examination of procedures, representative records, equipment, facilities and interviews with personnel. An exit briefing was conducted on November 8, 2002, with members of your staff.

Activities conducted at the facility were generally characterized by implementation of effective programs in the area of emergency preparedness.

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 inspection, please contact Dr. D. Blair Spitzberg at (817) 860-8191 or Wayne Britz at (817) 860-8194.

Sincerely,

/RA/

Ken E. Brockman, Director
Division of Nuclear Materials Safety

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

Enclosure:
NRC Inspection Report
70-1257/02-07

Framatome ANP, Inc.

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cc w/enclosure:

Doug Adkisson, Richland Operations Manager
Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, Washington 99352

Donald W. Parker, Manager
Environmental, Health, Safety & Licensing
Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, Washington 99352

Loren J. Maas, Manager
Licensing and Compliance
Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, Washington 99352

Calvin D. Manning, Manager
Nuclear Criticality Safety
Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, Washington 99352

Washington Radiation Control Program Director

bcc w/enclosure (via ADAMS distribution):

EWMerschoff
 DDChamberlain
 JEWhitten
 DBSpitzberg
 WLBritz
 DAAyers, RII
 PLHiland, RIII
 GFSanborn, RIV
 RWis, RIV
 DMGillen, FCFB/NMSS
 MLeach, SPIB/NMSS
 PSLee, FCFB/NMSS
 MIS System
 FCDB
 RIV Materials Docket File

DOCUMENT NAME: Draft: S:\dnms\fcdb\wlb\20125707.wpd Final: R:_DNMS\

RIV:DNMS:FCDB	C:FCDB	D:DNMS
WLBritz	DBSpitzberg	KEBrockman
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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 70-1257
License No.: SNM-1227
Report No.: 70-1257/02-07
Licensee: Framatome ANP, Inc.
Facility: Framatome ANP, Inc.
Location: Richland, Washington
Dates: November 4-8, 2002
Inspector: Wayne L. Britz, Fuel Cycle Facility Inspector
Fuel Cycle/Decommissioning Branch
Approved By: D. Blair Spitzberg, Ph.D., Chief
Fuel Cycle/Decommissioning Branch
Attachment: Supplemental Inspection Information

EXECUTIVE SUMMARY

Framatome ANP, Inc.
NRC Inspection Report 70-1257/02-07

This routine, announced inspection included a review of selected aspects of the licensee's program for emergency preparedness.

Emergency Preparedness (88050)

Review of Program Changes

- Based on interviews and a review of the emergency plan and procedures, changes made by the licensee of the emergency preparedness program since the last inspection were properly reviewed and did not appear to impact the effectiveness of the emergency preparedness program (Section 1.1).

Implementing Procedures

- Changes made to the implementing procedures of the emergency preparedness program continued to ensure an adequate response capability. A previously identified Inspection Followup Item concerning Implementing Procedure 3.11, *Environmental Safety Liaisons*, remains open because it contains an unuseable calculational means for air releases. The procedures were periodically reviewed and approved by plant management (Section 1.2).

Training, Drills and Exercises

- Effective training, drills and exercises were performed in support of the emergency preparedness program in accordance with license requirements (Section 1.3).

Emergency Equipment and Facilities

- Emergency equipment had been well maintained and was available for immediate use. Emergency equipment and facilities were in good condition and orderly. Inventories of equipment were in excess of that specified on the audit check list (Section 1.4).

Offsite Support

- Interfaces related to offsite support of emergency preparedness were properly maintained. Memorandums of Understandings with offsite support organizations were in place and support personnel were being periodically trained by the licensee (Section 1.5).

Followup (92701)

- The inspector reviewed and closed an Inspection Followup Item related to the depth of trained staff to fill the functions identified on the plant emergency response management team (Section 2).
- The inspector discussed the status concerning an Inspection Followup Item regarding Implementing Procedure 3.11, *Environmental Safety Liaisons*. This item remains open because the procedure contains an unuseable calculational means for air releases (Section 2).
- The inspector reviewed and closed a previous violation related to emergency preparedness training provided to the interim plant emergency directors (Section 2).
- The inspector reviewed and closed an Inspection Followup Item related to the completed revision to the chemical operations procedure concerning the condition report for the UF₆ valve packing nuts and revised procedures for opening UF₆ cylinders (Section 2).
- The inspector reviewed the status of the response to NRC Reactive Team Inspection Report 70-1257/0203 dated June 13, 2002, and Notice of Violation and Proposed Imposition of Civil Penalty dated August 28, 2002. The implementation and effectiveness of corrective actions identified in the licensee's action plan will be reviewed in detail during the next inspection (Section 2).

Report Details

Summary of Plant Status

The dry conversion facility (DCF), fuel pellet production, fuel rod downloading, engineering laboratory operations (ELO), lagoon uranium recovery (LUR), ammonia recovery facility (ARF), gadolinium recovery, modular extraction/recovery facility (MERF), solids processing facility (SPF) and the solid waste uranium recovery (SWUR) were in operation. The Line 2 ammonium diuranate (ADU) recovery process was not in operation.

1 Emergency Preparedness (88050)

1.1 Review of Program Changes

a. Inspection Scope

The inspector reviewed the changes to the emergency plan, organization, facilities, and equipment to assess the impact on the effectiveness of the program and to verify that the changes were reviewed and approved by plant management.

b. Observations and Findings

The inspector reviewed and discussed the changes made to the emergency preparedness program since the last inspection of this area. The plan was reviewed by the licensee during the past year. Revisions were made to Part I, *The Plan*, Part II, *Quick Reference Section*, and Part III, *Implementing Procedures*, of EMF-32, *Emergency Plan and Procedures*. Several personnel changes made during the past year were reflected in the new procedures. Additional personnel were trained to provide additional backup for the health physics and nuclear safety liaison functions. The changes were reviewed and approved by plant management. The changes made to the emergency plan and procedures did not appear to adversely impact the effectiveness of the program.

c. Conclusions

Based on interviews and a review of the emergency plan and procedures, changes made by the licensee of the emergency preparedness program since the last inspection were properly reviewed and did not appear to impact the effectiveness of the emergency preparedness program.

1.2 Implementing Procedures

a. Inspection Scope

The inspector reviewed the changes to the implementing procedures of the emergency program to ensure that procedures provided effective guidance for maintaining a response capability and were periodically reviewed and approved.

b. Observations and Findings

The inspector reviewed several existing procedures and procedural changes made to the emergency preparedness program since the last inspection. The changes made to the Implementing Procedure 3.11, *Environmental Safety Liaisons*, as a result of a previous Inspection Followup Item, were adequate except for Section 3.0 of Appendix I of the procedure which was not updated to provide a useable calculational means for air releases. Section 3.0, *Air Releases*, of Appendix I contained a means to calculate air releases, but it could not be implemented because the information such as mixed layer depth, height of dispersed plume and the vertical off-centerline correction required for the atmospheric dispersion calculation were not available with the licensee's meteorological information system. This procedure will continue to be reviewed as an Inspection Followup Item. See Section 2, Followup, IFI 70/1257/0106-02, of this report.

Implementing Procedure 3.1, *Plant Emergency Director*, Revision 5, dated March 2002, was reviewed. The procedure was updated to include Attachment F, *Classification and Notification Matrix*, to facilitate performance of the immediate functions of the Interim Plant Emergency Director during an emergency. Implementing Procedure 2.1, *Protective Action Decisions*, Revision 4, and Implementing Procedure 4.4, *Incident Notification Worksheet-PERMT*, Revision 3, both dated March 2002, were reviewed and found to be adequate.

c. Conclusions

Changes made to the implementing procedures of the emergency preparedness program continued to ensure an adequate response capability. A previously identified Inspection Followup Item concerning Implementing Procedure 3.11, *Environmental Safety Liaisons*, remains open because it contains an unuseable calculational means for air releases. The procedures were periodically reviewed and approved by plant management.

1.3 Training, Drills and Exercises

a. Inspection Scope

The objective of this portion of the inspection was to verify that the licensee had provided training, drills and exercises that were consistent with the frequency and performance objectives outlined in the emergency plan.

b. Observations and Findings

The inspector reviewed the training database for employees on the plant emergency response team, (PERT) and plant emergency response management team (PERMT). The inspector reviewed the training plans, attendance lists, and discussed the training with licensee emergency personnel. Individuals on the PERT received training on hazmat decon and spill control, self-contained breathing apparatus (SCBA), fire fighting and first aid. The inspector reviewed the lesson plan for the 2002 PERMT training which includes organization, mission, classification/notification, response/mitigation, layout of the emergency operations center, relocation and evacuation. The inspector also reviewed

interim plant emergency director training, emergency response checklist training, traffic control, staging area and accountability monitor training, PERT team leader training, unified dose assessment center representative training, security emergency notification training and notification monitor training. The training provided appeared thorough and adequate.

The drills and exercises conducted during the past year were reviewed. The inspector reviewed the critique of the field exercise conducted October 24, 2001. The critique appeared thorough and included NRC comments on the exercise. The table top emergency exercise conducted in October 2002, was reviewed. Records of the fire evacuation drills, semi-annual criticality evacuation drills, quarterly criticality alarm system reliability tests and quarterly telephone and fax tests were reviewed. The drills, exercises and tests were conducted in accordance with the license requirements.

c. Conclusions

Effective training, drills and exercises were performed in support of the emergency preparedness program in accordance with license requirements.

1.4 Emergency Equipment and Facilities

a. Inspection Scope

The objectives of this portion of the inspection were to verify that the emergency equipment and facilities were available and were properly maintained as specified in the site emergency plan.

b. Observations and Findings

The inspector reviewed the emergency equipment and facilities in the UO₂ Building machine shop, the Engineering Laboratory Operations Building, the Emergency Equipment Trailer by Warehouse 6 and the Emergency Operations Center equipment located at the east side of the guard station. Respiratory equipment, protective clothing, and survey instrumentation were observed during the tour. Equipment inventory levels were maintained and available for immediate use. The equipment and facilities appeared in good condition, orderly, and contained equipment in excess of that specified on the audit checklist.

c. Conclusions

Emergency equipment had been well maintained and was available for immediate use. Emergency equipment and facilities were in good condition and orderly. Inventories of equipment were in excess of that specified on the audit check list.

1.5 Offsite Support

a. Inspection Scope

The inspector reviewed the current agreements with offsite support organizations and discussed the offsite support facilities with the emergency preparedness manager to determine if the licensee was periodically involving offsite support groups in its emergency planning and preparedness program.

b. Observations and Findings

The inspector toured selected offsite facilities listed in the agency agreement letters contained in Part IV of EMF-32 during the previous two inspections. The agency agreement letters describe the Memorandum of Understanding (MOU) between the licensee and the offsite agency and their specific emergency response. The MOUs with the offsite agencies were in the process of being renewed during the inspection. Offsite agencies were provided emergency preparedness training by the licensee. The offsite support interface was properly maintained.

c. Conclusions

Interfaces related to offsite support of emergency preparedness were properly maintained. Memorandums of Understandings with offsite support organizations were in place and support personnel were being periodically trained by the licensee.

2 **Followup (92701)**

(Closed) IFI 70/1257/0106-01: The depth of trained staff to fill the functions identified on the PERMT was identified as inadequate.

A prior inspector review of the personnel assigned to certain important response functions specified in Part II, *Quick Reference Section*, Section 1.3.6, *Plant Emergency Response Management Team*, found that there was limited depth of trained staff to man several positions. For example, only one person was assigned and trained to assume the function of health physics liaison.

The inspector reviewed Revision 38 of Section 1.3.6 dated February 2002. Additional personnel were added and trained for the positions of industrial hygiene, health physics and nuclear safety liaisons. In addition, the personnel will be cross-trained for the positions to provide additional backups for these functions. This item is closed.

(Discussed) IFI 70/1257/0106-02: The procedure should describe the correct radiological dose calculation programs and meteorological information sources which are intended to be used during emergencies.

A prior inspector review of Implementing Procedure 3.11, *Environmental Safety Liaisons*, found that the procedure did not describe either of the two computer programs or the site's meteorological tower information which are used for making radiological dose projections for protective action determination and which were observed being used during the emergency exercise. Also, the procedure's Appendix I, Section 3.0, *Releases to Air*, could not be implemented because information such as mixed layer depth, height of dispersed plume and the vertical off-centerline correction required for the atmospheric dispersion calculation were not available with the licensee's meteorological information system. This matter was discussed with licensee representatives and they indicated the intent to review the procedure for needed changes to describe the correct radiological dose calculation programs and meteorological information sources which are intended to be used during emergencies.

The inspector reviewed Revision 4 of Implementing Procedure 3.11 dated March 2002. The procedure was changed to describe the use of the Emergency Operations Center plume computer to determine onsite and offsite exposure projections and to utilize the site meteorological tower. However, Appendix I, Section 3.0, *Releases to Air*, had not been changed. This matter was again discussed with licensee representatives and they indicated the change would be made. The review of licensee actions to evaluate the changes necessary to correctly describe a method to calculate releases to air in Section 3.0 of Appendix I will remain an Inspection Followup Item.

(Closed) VIO 70/1257/0106-03: Failure to provide training to backshift personnel to perform all duties required for Interim Plant Emergency Director required by the Emergency Plan.

A prior inspector review of the training provided to backshift operations personnel and interviews with backshift personnel and their management determined that the backshift personnel were not trained or expected to fully discharge the functions of the interim plant emergency director until the plant emergency director (PED) position is manned during an emergency. The Emergency Plan, EMF-32, Part I, Section 4.0, *Responsibilities*, states in Section 4.1, *Normal Facility Organization*, that "During back-shifts, the chemical operations supervisor or lead delegate onsite serves as interim PED (plant emergency director) with these same responsibilities until relieved by the responding PED or alternate." Section 4.2.1.1, *PED Positions and Duties*, states "Duties and authority of the PED include: ... Making protective action decisions for onsite personnel, and making protective action recommendations for offsite authorities - May not be delegated." The licensee's failure to train and require backshift personnel to fully discharge the duties of the interim plant emergency director as required by the emergency plan was determined to be a violation of License Safety Condition S-2 which requires the licensee to maintain and execute the response measures in the emergency plan consistent with 10 CFR 70.32(i).

The inspector reviewed the current emergency preparedness training provided to the interim plant emergency directors, reviewed the training records and discussed the duties of the interim plant emergency director with the personnel that were trained for the position. A classification and notification matrix was added to the implementing procedures to facilitate accident classification and notification. The inspector determined that the personnel had been trained and were knowledgeable of their duties to fulfill the position. This item is closed.

(Closed) IFI 70/1257/0106-04: Review condition report progress concerning UF₆ valve packing nuts and revised procedures for opening UF₆ cylinders.

By letter dated November 20, 2001, Hunt Valve Company, Inc., notified the NRC concerning 1" UF₆ valve packing nuts or individual replacement packing nuts. The valve nuts may have contained material conditions that could contribute to cracking in the packing nuts that is not detectable using the inspection techniques specified by current applicable standards. The licensee followed up on the issue by initiating a condition report with an action item to revise procedures for opening/autoclaving UF₆ cylinders. Planned revisions to procedures would address valve checks before vaporizing cylinders with valve packing nuts with potential defects. At the time of a prior inspection the licensee had not completed the revisions in procedures.

The inspector reviewed the completed revision to the chemical operations procedure. This item is closed.

(Discussed) VIO 70-1257/0203-01: Failure to maintain double contingency control for criticality safety; VIO 70-1257/0203-02, Failure to maintain configuration control for criticality safety; VIO 70-1257/0203-03, Operator failure to follow procedure requiring drum inspection and management failure to provide adequate supervision; VIO 70-1257/0203-04, Failure to identify necessary criticality safety controls in the CSA and CSS; VIO 70-1257/0203-05, Failure to include CSA and CSS requirements in the SOP.

The inspector reviewed the status of the response to NRC reactive team inspection Report 70-1257/0203 dated June 13, 2002, and Notice of Violation and Proposed Imposition of Civil Penalty dated August 28, 2002. The licensee had developed an action plan and status report which contained the topical headings of 1) management and supervisory accountability, 2) worker training and qualification, 3) procedural work-arounds, 4) adequacy of root cause evaluations, 5) requirements flow-down, and 6) configuration management system adequacy.

The inspector reviewed the status of the items with the licensee. The established action item due dates have been completed and the remainder are in process and being worked on. The status of the actions identified in the action plan will be reviewed in detail during the next inspection.

3 Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on November 8, 2002. The licensee did not identify any of the information discussed at the meeting as proprietary.

ATTACHMENT

PARTIAL LIST OF LICENSEE PERSONNEL CONTACTED

R. K. Burklin, Manager, Radiation Protection
R. E. Link, Site Manager
L. J. Maas, Manager, License and Compliance
C. D. Manning, Criticality Safety, Regulatory Compliance
D. W. Parker, Environmental, Health, Safety & Licensing
J. J. Payne, Manager, Chemical Operations
T. C. Probasco, Manager, Emergency Preparedness, Industrial Safety and Security

INSPECTION PROCEDURES USED

88050	Emergency Preparedness
92701	Followup

OPEN, DISCUSSED AND CLOSED ITEMS

Closed

70/1257/0106-01	IFI	The depth of trained staff to fill the functions identified on the PERMT was identified as inadequate.
70/1257/0106-03	VIO	Failure to provide training to backshift personnel to perform all duties required for Interim Plant Emergency Director required by the Emergency Plan .
70/1257/0106-04	IFI	Review condition report progress concerning UF ₆ valve packing nuts and revised procedures for opening UF ₆ cylinders.

Discussed

70/1257/0106-02	IFI	The procedure should describe the correct radiological dose calculation programs and meteorological information sources which are intended to be used during emergencies.
70-1257/0203-01	VIO	Failure to maintain double contingency control for criticality safety
70-1257/0203-02	VIO	Failure to maintain configuration control for criticality safety
70-1257/0203-03	VIO	Operator failure to follow procedure requiring drum inspection and management failure to provide adequate supervision
70-1257/0203-04	VIO	Failure to identify necessary criticality safety controls in the CSA and CSS
70-1257/0203-05	VIO	Failure to include CSA and CSS requirements in the SOP

LIST OF ACRONYMS USED

ADAMS	agencywide documents access and management systems
ADU	ammonium diuranate
ARF	ammonia recovery facility
CFR	Code of Federal Regulations
DCF	dry conversion facility
ELO	Engineering Laboratory Operations Building
EPA	Environmental Protection Agency
hazmat	hazardous materials
IFI	inspection followup item
LUR	Lagoon Uranium Recovery
MERF	modular extraction/recovery facility
MOU	memorandum of understanding
MURS	miscellaneous uranium recovery system
NMSS	Nuclear Material Safety and Safeguards
NRC	Nuclear Regulatory Commission
PED	Plant Emergency Director
PERMT	Plant Emergency Response Management Team
PERT	Plant Emergency Response Team
SCBA	self-contained breathing apparatus
SNM	special nuclear material
SPF	Solids Processing Facility
SWUR	Solid Waste Uranium Recovery facility
UO ₂	uranium dioxide
VIO	violation