



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION II
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61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

February 24, 2005

Framatome ANP
ATTN: Mr. Robert Freeman
Plant Manager
Mount Athos Road Facility
P. O. Box 11646
Lynchburg, VA 24506-1646

SUBJECT: NRC INSPECTION REPORT NO. 70-1201/2005-001

Dear Mr. Freeman:

This report refers to the inspection conducted from December 14 through December 16, 2004, and January 24 through January 27, 2005, at the Mount Athos Road 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 were radiation protection, emergency preparedness, transportation, and fire safety. 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 Enclosure 1 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).

As of October 25, 2004, the NRC initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the ADAMS database accessible through the NRC's web site. Interested members of the public may obtain copies of the referenced documents for review and/or copying by contacting the Public Document Room pending resumption of public access to ADAMS. The NRC Public Documents Room is located at NRC Headquarters in Rockville, MD, and may be contacted at (800) 397-4209.

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. 70-1201
License No. SNM-1168

Enclosure: NRC Inspection Report

cc w/encl:
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 PUBLIC

X SISP REVIEW COMPLETE: Initials: AG SISP REVIEW PENDING*: Initials: _____ *Non-Public until the review is complete
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 ADAMS: Yes ACCESSION NUMBER: _____

OFFICE	RII:DFFI	RII:DFFI					
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DATE	02/15/2005	02/16/2005					
E-MAIL COPY?	YES	YES	YES NO				

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1201

License No.: SNM-1168

Report No.: 70-1201/2005-001

Licensee: Framatome ANP, Inc.

Facility: Mount Athos Road Facility

Location: Lynchburg, Virginia

Dates: December 14, 2004 through January 27, 2005

Inspectors: A. Gooden, Senior Fuel Facility Inspector
W. Britz, Fuel Facility Inspector

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

Enclosure

EXECUTIVE SUMMARY

Framatome ANP, Inc.
NRC Inspection Report 70-1201/2005-001

This routine, announced inspection was conducted in the areas of radiation protection, emergency preparedness, transportation, and fire safety. The inspection involved observation of work activities, a review of documentation in support of the activities observed, and interviews with plant personnel. The inspection identified the following aspects of the licensee programs as outlined below:

Radiation Protection

- The observed equipment used for detecting the presence of radioactive materials on smears, air samples, personnel, and within the workplace was properly maintained and performed the intended safety function in a reliable manner (Paragraph 2.a).
- No regulatory or license limits were exceeded. Exposures were significantly below the occupational limits in 10 CFR 20.1201 and no unacceptable biological risk resulted (Paragraph 2.b).
- Based on exposure documentation and interviews, the internal exposures were significantly below the occupational limits in 10 CFR 20.1201 and no limits were exceeded (Paragraph 2.c).
- The respiratory protection program was implemented in a manner to ensure that the equipment issuance, storage, user training, and fit testing met federal requirements for respirator use. An inspector follow up item (IFI) was opened to verify that procedure SL-1231 revisions include the testing, maintenance, and operations of the supplied air respiratory system (SAR), and the quantitative fit testing equipment (Paragraph 2.d).
- Based on licensee performance, interviews, and documentation, the inspectors determined that notification and reporting of exposure information was done in accordance with the regulations and the license requirements (Paragraph 2.e).
- The inspectors concluded from program documentation reviewed and interviews that the licensee was properly implementing a program to maintain exposures as low as is reasonably achievable (ALARA) (Paragraph 2.f).

Emergency Preparedness

- Key organization changes did not appear to impact the effectiveness of the emergency management program (Paragraph 3.a).
- The revised addenda to Emergency Procedure SL-1308 continued to implement the response actions in SL-1308 to site postulated accidents (Paragraph 3.b).
- Emergency response training was adequate to meet license commitments for maintaining an emergency response organization (Paragraph 3.c).

- The licensee maintained current agreements with offsite support groups and participated in the offsite local emergency planning committee organization (Paragraph 3.d).
- The licensee's drill and exercise program were adequate for testing the emergency procedures and demonstrating that an emergency organization was maintained for conducting a facility evacuation and interfacing with offsite authorities (Paragraph 3.e).
- The equipment used for emergency response was adequately inspected and tested to ensure proper operations (Paragraph 3.f).

Transportation

- Activities associated with the packaging, classification, shipments, receipt and records of nuclear materials were performed in accordance with the current procedures and regulations. An inspector followup item (IFI) was opened concerning the calculation of radioactive materials shipped (Paragraph 4.a).
- Current Certificates of Compliance (CoC) were on file and being properly implemented for the four shipping containers used to transport fuel scrap, pellets or assemblies (Paragraph 4.b).
- Management controls for the packaging and transporting of radioactive materials were being implemented in accordance with the quality assurance and audit program (Paragraph 4.c).

Fire Safety

- There had been no changes in management or support personnel and no significant issues since the last inspection. The audits and maintenance of the fire protection systems were being conducted as required. The inspection of the systems, equipment, fire detectors, inspection tags and postings appeared adequate (Paragraph 5.a).
- The inspectors had no issues with the site hazard analyses, the pre-fire plan, or the fire system and detection construction and installation (Paragraph 5.b).
- Fire protection services were provided by the fire brigade with support from the local volunteer fire department. The inspectors had no issues with the training, drills and support provided for fire protection (Paragraph 5.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 December 14, 2004 through January 27, 2005. During the period, activities associated with fuel assembly and plant services were normal. There were no plant upsets or unusual operational occurrences during the inspection.

2. Radiation Protection (Inspection Procedure (IP) 83822)

a. Radiation Protection Program Equipment (R1.03)

(1) Inspection Scope and Observations

Equipment used to identify the presence of radioactive materials on smears, air samples, and personnel was examined to determine if the selected equipment was adequately maintained and reliable to perform the intended safety function. The inspectors interviewed personnel performing operability checks on laboratory analytical equipment, survey meters, and criticality safety detectors. The documentation for selected equipment routine checks and calibrations was also reviewed. Based on interviews and documentation, the selected equipment was properly maintained and results from operability checks and calibrations indicated that the equipment provided reliable results.

(2) Conclusions

The observed equipment used for detecting the presence of radioactive materials on smears, air samples, personnel, and within the workplace was properly maintained and performed the intended safety function in a reliable manner.

b. External Exposure Control (R1.04)

(1) Inspection Scope and Observations

The inspectors reviewed and discussed with licensee representatives personnel exposure data to determine if exposures were in compliance with 10 CFR Part 20 limits, and if controls were in place to maintain occupational doses as low as reasonably achievable (ALARA). Table 1 below displays the maximum assigned exposure data for calendar years (CY) 2003 and 2004. When CY 2004 exposures were compared to CY 2003, the maximum assigned exposures increased almost two-fold but remained significantly less than the regulatory occupational limits of 5 rem whole body and 50 rem skin or extremity dose. The maximum assigned whole body dose was 0.644 rem (13 percent of limit), and the maximum assigned skin or extremity dose was 2.92 rem (6 percent of limit). The maximum assigned total effective dose equivalent (TEDE) (internal and external exposure) was 1.46 rem (29 percent of the limit). An examination of the exposure data and a discussion with the licensee indicated that the increase in exposures was directly attributable to the increase in fuel manufacturing and field services activities. Based on the current site activity, the licensee's personnel monitoring program for external exposure was properly implemented.

Table 1. Annual Exposures

Year	Deep Dose Equivalent (DDE)	Shallow Dose Extremity (SDE)	Total Effective Dose Equivalent (TEDE)	Collective TEDE (person-rem)	Committed Effective Dose Equivalent (CEDE)
2003	0.388 rem	1.37 rem	0.668 rem	12.54	0.560 rem
2004	0.644 rem	2.92 rem	1.46 rem	24.73	1.10 rem

(2) Conclusions

No regulatory or license limits were exceeded. Exposures were significantly below the occupational limits in 10 CFR 20.1201 and no unacceptable biological risk resulted.

c. Internal Exposure Control (R1.05)(1) Inspection Scope and Observations

The inspectors reviewed controls for assessing internal exposure to verify that administrative and physical controls were in place to control occupational dose ALARA and less than occupational limits. Table 1 above presents the maximum assigned internal dose referred to as the committed effective dose equivalent (CEDE). When CY 2004 exposures compared to CY 2003, the maximum assigned CEDE increase was approximately two-fold but remained significantly less than the regulatory occupational limits of 5 rem (1.10 rem or 22 percent of the limit).

The inspectors reviewed the licensee's program for monitoring internal exposure and determined that the program was adequate based on the type of operations and work activity taking place at the site. The inspectors reviewed the methodology by which workers were selected to participate in the bioassay program. Participants were appropriately assigned based on the percentage of time working in a radiation area and/or the potential for incurring 10 percent of the occupational limits. The inspectors also verified that positive controls were in place to ensure that bioassay program participants provided the appropriate sample(s) at the required frequency.

(2) Conclusions

Based on exposure documentation and interviews, the internal exposures were significantly below the occupational limits in 10 CFR 20.1201 and no limits were exceeded. Positive controls were in place to ensure that bioassay samples were provided by program participants at the required frequency.

d. Respiratory Protection (R1.06)

(1) Inspection Scope and Observations

Respiratory protection equipment storage, issuance, maintenance, and training was reviewed for adequacy in assuring that equipment was properly stored, operationally ready for use, and being obtained by certified users only. The inspectors interviewed technicians and visited equipment storage locations to examine the condition of equipment and verify that positive controls were in place to ensure that only certified users were issued equipment. No problems were noted. With the exception of fire brigade self-contained breathing apparatus (SCBA), respirators were properly stored inside a locked cabinet requiring keys controlled by the radiation protection staff. Respirators assigned to the fire brigade were maintained by the brigade team captain within the Emergency Operations Facility (EOF). The inspector reviewed the respirator issuance logs for the service equipment refurbishment facility (SERF) and the fire brigade roster for verification that respirator users were certified. No problems were identified.

Regarding the maintenance of equipment, the inspectors discussed with the licensee and reviewed Procedure No. SL-1231 "Respiratory Protection Program." The inspectors determined that equipment listed in SL-1231 was being maintained in accordance with the procedure with one exception. The exception was the supplied air respirator system (SAR). SL-1231 did not include any requirements for equipment maintenance, testing, and/or setup. When questioned regarding verification of the air quality provided by the equipment and other maintenance (filter change), the licensee acknowledged that such details were not proceduralized in that the system utilized an air motor with a blower which delivered room air as the source of the air supply. Regarding the filter change out, the licensee stated that the filter was periodically checked for color changes as an indicator for replacing. The inspectors discussed the equipment vendor's precautions and warnings for equipment use and the lack of verification testing by the licensee regarding the quality of the air provided. In response, the inspector observed the licensee collect air samples from the immediate vicinity where the equipment was set up to demonstrate that the concentration of oxygen in the area was not less than 19.5 percent or greater than 23 percent (ambient air). No problems were noted with the air concentration of oxygen. The inspectors discussed with the licensee what if any precautions may be necessary for this system to ensure the quality of the air does not degrade during equipment use. In response, the licensee committed to revise SL-1231 to include the necessary precautions for operating the SAR equipment along with the periodic maintenance required. The inspectors informed the licensee that the revisions to SL-1231 "Respiratory Protection Program" would be tracked as an inspector followup item (IFI) (IFI 70-1201/2005-001-01).

The licensee informed the inspectors that as a recent initiative to upgrade the respirator fit testing program, the site purchased a system for performing a "quantitative rather than qualitative fit test." The licensee further stated that the procedures governing the

testing, maintenance, and operability of the fit test equipment would be included in the revised Procedure SL-1231 "Respiratory Protection Program." The inspectors indicated that the development of procedures for performing the quantitative fit testing would be tracked via IFI 70-1201/2005-001-01 discussed above.

(2) Conclusions

The respiratory protection program was implemented in a manner to ensure that the equipment issuance, storage, user training, and fit testing met federal requirements for respirator use. An IFI was opened to verify that procedure SL-1231 revisions include the testing, maintenance, and operations of the supplied air respiratory system (SAR), and the quantitative fit testing equipment.

e. Notifications and Reports (R1.09)

(1) Inspection Scope and Observations

The inspectors selected an incident involving a fire for determining the adequacy of the licensee's review, evaluation, and to determine if the event met the requirements for reportability to NRC. The availability of exposure data to workers was also reviewed. The selected incident did not require notification to NRC. The licensee's review and evaluation of the incident was prompt and actions to prevent a recurrence was timely. Randomly selected workers were questioned regarding the availability and/or provision of exposure data by the licensee. In every interview the worker indicated that at least annually the exposure information was provided. The inspectors further confirmed the licensee's proper reporting of exposures via NRC Form 5 data which was provided to NRC.

(2) Conclusions

Based on licensee performance, interviews, and documentation, the inspectors determined that notification and reporting of exposure information was done in accordance with the regulations and the requirements in the license.

f. Implementation of ALARA Program (R1.10)

(1) Inspection Scope and Observations

The licensee's ALARA program was reviewed to determine if the licensee was periodically performing audits/evaluations to determine if exposures resulting from high activity projects may be lowered, and if ALARA goals were being developed and implemented on a regular basis. In addition, the program for reinforcing ALARA concept among employees was assessed.

On an annual basis, the licensee issued an ALARA Performance Report containing exposure summaries to identify undesirable trends. In those cases where exposures were elevated, consideration was given to ways for reducing exposures. ALARA goals and objectives were established in 2004 but no determination had been made regarding the attainment of the 2004 goals and objectives.

Several workers were interviewed regarding ALARA and demonstrated an adequate knowledge and/or understanding of concepts. The inspectors interviewed radiation protection personnel assigned responsibility for the ALARA evaluations and assessments associated with the major activities contributing to exposures. Based on the interview and support documentation associated with the evaluations for SERF-5 projects, the licensee was properly implementing an ALARA program.

(2) Conclusions

The inspectors concluded from program documentation reviewed and interviews that the licensee was implementing a program to maintain exposures ALARA.

3. Emergency Preparedness (IP 88050)

a. Review of Program Changes (F3.01)

(1) Inspection Scope and Observations

Changes to the emergency response program since the last inspection were reviewed to determine the effectiveness on the program. Changes were made to the normal plant organization which resulted in changes to the emergency organization and were reflected in the emergency call list. The organizational changes should have minimal impact on the program in that the majority of the response personnel are experienced, long term members.

(2) Conclusions

Key organization changes did not appear to impact the effectiveness of the emergency management program.

b. Implementing Procedures (F3.02)

(1) Inspection Scope and Observations

Changes to Procedure SL-1308 (Emergency Procedure) and the addenda were reviewed to determine what impacts resulted. The inspectors reviewed select addenda to the procedure to verify that the revised addenda and SL-1308 continue to provide for the safety of plant personnel during postulated accidents. The inspectors reviewed and discussed with the licensee recent changes to the evacuation procedures for conducting accountability. Based on the documentation and results from the January 2005 drill, it appeared that the changes would result in a more timely and accurate accountability listing.

The inspectors examined locations where copies of the Emergency Procedure SL-1308 were located to determine if current copies were being maintained. The inspectors found an outdated copy of SL-1308 and the addenda at the EOF, and questioned the licensee regarding the status of documents at other locations. The licensee

acknowledged that similar conditions may exist at other locations as was found in the EOF. In response, actions were planned to update all locations and assign the administrative responsibility to an individual to ensure that documents were maintained current and up to date.

(2) Conclusions

The revised addenda to Emergency Procedure SL-1308 continued to implement the response actions in SL-1308 to site postulated accidents.

c. Training and Staffing of Emergency Organization (F3.03)

(1) Inspection Scope and Observations

Emergency response training was reviewed to determine if the licensee had provided training to response personnel in accordance with Emergency Procedure SL-1308. The inspectors reviewed the training provided to response personnel during the year including first aid, hazardous materials, fire fighting, and participation in drills. In addition, interviews were held with personnel assigned to implement SL-1308 and interviewees acknowledged having reviewed the revisions to SL-1308 and signed the appropriate training documentation. No problems were noted.

(2) Conclusions

Emergency response training had been provided to all personnel on the current call list. The training was adequate to meet license commitments for maintaining an emergency response organization.

d. Offsite Support (F3.04)

(1) Inspection Scope and Observations

Licensee activities in the areas of training, agreements, and exercises were reviewed to determine if the licensee was periodically involving offsite support groups. Documentation disclosed that the licensee was maintaining contact with the offsite support groups (excluding the hospital) via the local emergency planning committee, and a current memorandum of understanding was on file for each of the support organizations. The licensee indicated that no recent drill involving offsite support groups was held. Documentation showed that the emergency phone numbers were verified quarterly as current for offsite groups.

(2) Conclusions

The licensee maintained current agreements with offsite support groups and participated in the offsite local emergency planning committee organization.

e. Drills and Exercises (F3.05)

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's performance in conducting drills and exercises for adequacy in testing the onsite response organization and the interface with offsite emergency support groups. The licensee was conducting an evacuation drill annually in accordance with the license. The most recent drill was conducted during May 2004 and was limited to the onsite fire brigade, radiation protection, hazardous material, and first aid teams. The inspectors determined from interviews and past drills that the licensee did not routinely test key management positions assigned to the emergency organization and/or other critical elements of the emergency management program (e.g., event emergency classification, protective actions, and interface with offsite support groups). Drills were being conducted at the required frequency. Based on drill documentation, when issues were identified, follow up items were generated for corrective actions.

(2) Conclusions

The licensee's drill and exercise program was adequate for testing the emergency procedures and demonstrating that an emergency organization was maintained for conducting a facility evacuation and interfacing with offsite authorities.

f. Emergency Equipment and Facilities (F3.06)

(1) Inspection Scope and Observations

The EOF and select equipment were inspected to determine whether the facility, emergency response equipment, instrumentation, and supplies were maintained in a state of operational readiness. With the exception of the outdated Emergency Procedure SL-1308 and addenda (Paragraph 3.b), the EOF and contents examined were maintained in a state of readiness. Calibration documentation for select hand-held survey instruments was reviewed to determine the reliability and operability of equipment, and the inspectors verified that fire brigade personal protective equipment was being periodically surveillance and properly maintained. No problems were noted.

(2) Conclusions

The equipment used for emergency response was adequately inspected and tested to ensure proper operations.

4. Transportation (IP 86740)

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

(1) Inspection Scope and Observations

The inspectors reviewed the transportation activities associated with the packaging, shipment, receipt, records and reports of radioactive material to verify that activities were in accordance with NRC and Department of Transportation (DOT) regulations in 10 CFR Part 20, 10 CFR Part 71, and 49 CFR Parts 171-180.

The inspectors reviewed procedures SL-1108, *Hazardous Material Shipping* and SL-1600, *Shipment and Receipt of Radioactive Material*, and the addenda to SL-1600. The licensee's performance was observed in package preparation, documentation, and surveying for a reactor services shipment. The procedures for shipping radioactive materials were discussed with the licensee personnel. An IFI was opened as a result of the review of SL-1600, Addendum 6, *Contaminated Field Services Equipment Shipment*. The inspectors determined that Section 6.3 of SL-1600, *Determination of millicurie content of the containers*, lacked documentation regarding formula units; no consideration was given to the use of attenuation factors for the gamma constant; and the licensee had not properly analyzed the practice of summing all six sides of a shipping package in light of various package sizes and the energy of the radionuclides shipped. The licensee's actions to review the calculation of radioactive materials shipped was considered an IFI (IFI 70-1201/2005-001-02).

The licensee's procedures had been revised to include the implementation of the new transportation regulations adopted by NRC and DOT (effective October 1, 2004). Personnel were familiar with and knowledgeable of the new requirements and procedures for shipping and receiving radioactive materials. The inspectors reviewed shipping documentation for receipt of drums containing pellets, shipments of empty containers, and scrap material. Shipments were made utilizing containers with a current NRC CoC. Shipping papers included the appropriate emergency response information and a twenty-four hour emergency response telephone number. Shipment receipts were properly documented. Based on the inspectors' observations, the appropriate container and vehicle labeling/markings, radiation and contamination surveys, and records were completed according to the procedures and regulations.

(2) Conclusions

Activities associated with the packaging, classification, shipments, receipt and records of nuclear materials were performed in accordance with the current procedures and regulations. An IFI was opened concerning the calculation of radioactive materials shipped.

b. Certificates of Compliance (R4.04)

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's CoCs, to ensure they were maintained current and complied with requirements in 10 CFR Part 71. The inspectors reviewed documentation for the four shipping containers (51032-1, Model B, DHTF and BW2901) used to transport fuel scrap, pellets, or assemblies. Each shipping container's CoC was observed to be current. A new CoC for the 51032-1 shipping package was being implemented. The inspectors reviewed the training, procedures, work instructions, inspection verifications, and quality assurance surveillance performed on the 51032-1 shipping packages. The transportation procedure checklist required container maintenance and pre-load inspection prior to use. The inspectors observed personnel performing container maintenance and modification. The inspectors reviewed licensee compliance with the March 22, 2004 letter from NRC to the licensee regarding confirmatory action closure for the required drum closure apparatus. The licensee was observed to be using the specified drum closure apparatus. No problems were noted.

(2) Conclusions

Current CoCs were on file and being properly implemented for the four shipping containers used to transport fuel scrap, pellets or assemblies.

c. Management Controls (R4.05)

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's quality assurance program and audit program to verify the management controls for packaging and transporting radioactive materials. The inspectors reviewed the implementation of the licensee's NRC approved *Fuel Sector Quality Management Manual*, FQM Revision 1, approved by the NRC on July 22, 2003. The quality program was discussed with the quality assurance personnel. Two corrective action reports resulting from a recent audit, *Internal Audit Summary Report-Audit #03:41, Shipping and Handling/ Shipping Container Program,* dated February 9, 2004, were reviewed. The corrective action reports were completed. Two quality assurance surveillance documents for fuel assemblies and shipments were reviewed. The checklists were completed in accordance with procedures. The licensee's quality assurance and audit program were being properly implemented.

(2) Conclusions

Management controls for the packaging and transporting of radioactive materials were being implemented in accordance with the quality assurance and audit program.

5. **Fire Safety (IP 88055)**

- a. Fire Protection Program Management/Organization (O4.01)
Review of Documentation Related to the Fire Protection Program, Insurer's Audits and Safety Committee (O4.02)
Fire Safety of Processes, Equipment, and Storage Areas (O4.04)
Fire Protection Systems (O4.05)

(1) Inspection Scope and Observations

The inspectors reviewed fire protection program organization and management, the requirements and documentation related to the fire protection program, and the fire safety of processes, equipment and storage areas. The inspectors discussed the program with management and the personnel who inspect and service the fire equipment. There had been no changes in management or support personnel since the last inspection and no significant issues.

The inspectors reviewed the audits performed on the fire protection program by internal and external auditors and the fire insurer. The inspectors reviewed two condition reports concerning zirconium fires on a lathe and on a screw machine. The reports were complete and further training on preventing zirconium fires was provided. Records of inspection and maintenance of fire systems and equipment were reviewed. The audits, records and maintenance of the fire protection systems had been conducted as required.

The inspectors toured and inspected fire systems and equipment in the fuel rod and bundle manufacturing areas, reactor services buildings, and other site storage buildings. The systems, equipment, fire detectors, inspection tags and postings appeared adequate.

(2) Conclusions

There had been no changes in management or support personnel and no significant issues since the last inspection. The audits and maintenance of the fire protection systems were being conducted as required. The inspection of the systems, equipment, fire detectors, inspection tags and postings appeared adequate.

- b. Building Design, Construction, and Ventilation System (O4.03)
Fire Hazard Analysis (O4.06)
Pre-Fire Plan (O4.07)

(1) Inspection Scope and Observations

The inspectors reviewed the overall fire protection systems for the site buildings, the plant fire hazard analyses dated September 2001, and the pre-fire plan dated September 2004. The pre-fire plan provided details of the site and buildings on the site with the locations of the various types of fire protection equipment and location of chemical and radiological sites. The Concord Volunteer Fire Department was provided copies of the pre-fire plan for their use when responding to events at the licensee's facilities.

The inspectors reviewed the new SERF-5 building, its fire protection equipment, and its fire hazard analyses dated June 2004. The inspectors had no issues with fire system and equipment in the new facility.

(2) Conclusions

The inspectors had no issues with the site hazard analyses, the pre-fire plan, or the fire system and detection construction and installation.

c. Fire Brigade Training (O4.08)
Fire Emergency Drills (O4.09)
Off Site Support (O4.10)

(1) Inspection Scope and Observations

The inspectors reviewed and observed onsite and offsite support for fire protection and fire drills. Fire protection services were provided by the site's fire brigade with support from the Concord Volunteer Fire Department. The fire protection training was reviewed including video and hands on training for General Employee Training and fire brigade personnel. The inspectors reviewed the materials and video training provided for preventing spontaneous zirconium fires. The inspectors had no issues with the training, drills, and support provided for fire protection.

(2) Conclusions

Fire protection services were provided by the fire brigade with support from the local volunteer fire department. The inspectors had no issues with the training, drills and support provided for fire protection.

d. Follow Up On Previous Identified Issues (O4.11)

(1) Inspection Scope and Observation

The inspectors reviewed the licensee's actions in response to IFI 70-1201/2003-005-01 to update the pre-fire plan. The inspectors were provided for review a copy of the pre-fire plan dated September 2004. The previous copy of the pre-fire plan was dated 1998. The September 2004 pre-fire plan reflected current site changes and hazards.

(2) Conclusions

The IFI was closed based on the review of the recently updated pre-fire plan.

6. Exit Interview

The inspection scope and results were summarized with licensee management on December 16, 2004, and January 27, 2005. 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

- #T. Blanks, Supervisor, Radiation Protection
- #S. Carter, Supervisor, Security and Transportation Logistics
- #*R. Freeman, Plant Manager
- #*C. Holman, Manager, Environment, Health, Safety & Licensing
- #*G. Lindsey, Health Physicist, Environment, Health, Safety & Licensing
- *B. Sharkey, Consultant, Environment, Health, Safety & Licensing
- #B. O'Donnell, Criticality Safety Engineer

*Attended exit meeting on December 16, 2004.

#Attended exit meeting on January 27, 2005.

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

2. **INSPECTION PROCEDURES USED**

- | | |
|----------|------------------------|
| IP 83822 | Radiation Protection |
| IP 86740 | Transportation |
| IP 88050 | Emergency Preparedness |
| IP 88055 | Fire Safety |

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

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
70-1201/2003-005-01	Closed	IFI	Update pre-fire (Paragraph 5.d).
70-1201/2005-001-01	Open	IFI	Revise SL 1231 "Respiratory Protection Program" to include operability, maintenance, calibration, and testing of the supplied air respirator system, and the newly purchased quantitative respirator fit test system (Paragraph 2.d).
70-1201/2005-001-02	Open	IFI	Review radioactive materials calculation for transport (Paragraph 4.a).

4. LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access Management System
ALARA	As Low As Reasonably Achievable
CEDE	Collective Effective Dose Equivalent
CFR	Code of Federal Regulations
CoC	Certificate of Compliance
CY	Calendar Year
DDE	Deep Dose Equivalent
DOT	Department of Transportation
EOF	Emergency Operations Facility
IFI	Inspector Followup Item
IP	Inspection Procedure
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
SAR	Supplied Air Respiratory System
SCBA	Self Contained Breathing Apparatus
SDE	Shallow Dose Equivalent
SERF	Service Equipment Refurbishment Facility
SNM	Special Nuclear Material
TEDE	Total Effective Dose Equivalent