



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

September 9, 2005

Westinghouse Electric Company
ATTN: Mr. M. Fecteau, Manager
Columbia Plant
Commercial Nuclear Fuel Division
Drawer R
Columbia, SC 29250

SUBJECT: NRC INSPECTION REPORT NO. 70-1151/2005-07

Dear Mr. Fecteau:

The U.S. Nuclear Regulatory Commission (NRC) conducted announced, routine inspections August 1-4 and August 8-12, 2005, at your Columbia, South Carolina facility. The enclosed report presents the results of these inspections. The purpose of these inspections was to perform a routine review of the implementation of the following programs: environmental protection, radioactive waste management, low-level radioactive waste, waste generator requirements, transportation, management organization and controls, and fire protection. This review was performed to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspections, the findings were discussed with those members of your staff at exit meetings held on August 4 and 12, 2005.

These inspections were an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of facility walk downs; selective examinations of relevant procedures and records; examinations of safety-related structures, systems, equipment and components; interviews with plant personnel; and observations of plant conditions and activities in progress. Throughout the inspection, observations were discussed with your managers and staff.

Based on the results of this inspection, no violations of regulatory requirements occurred.

In accordance with 10 CFR 2.390 of NRC's "Rules of Practice," a copy of this letter, and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

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

Sincerely,

/RA/

Jay L. Henson, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

Docket No. 70-1151
License No. SNM-1107

Enclosure: NRC Inspection Report

cc w/encl:
Sam McDonald, Manager
Environment, Health and Safety
Commercial Nuclear Fuel Division
Westinghouse Electric Corporation
P. O. Box R
Columbia, SC 29250

Henry J. Porter, Assistant Director
Div. of Radioactive Waste Mgmt.
Dept. of Health and Environmental
Control
Electronic Mail Distribution

R. Mike Gandy
Division of Radioactive Waste Mgmt.
S. C. Department of Health and
Environmental Control
Electronic Mail Distribution

Distribution w/encl: (See page 3)

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Distribution w/encl:

J. Henson, RII
D. Seymour, RII
J. Lubinski, NMSS
M. Galloway, NMSS
J. Olivier, NMSS
P. Silva, NMSS
M. Adams, NMSS
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2005-007

Licensee: Westinghouse Electric Company

Location: Columbia, SC

Inspection Dates: August 1 - 4, 2005
August 8 - 12, 2005

Inspectors: Jose Jimenez, Fuel Facility Inspector
Nilda S. Rivera Fuel Facility Inspector
Cynthia Taylor, Fuel Facility Inspector

Approved: Jay Henson, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Commercial Nuclear Fuel Division NRC Inspection Report 70-1151/2005-007

These routine announced inspections focused on the observations and evaluation of the licensee's environmental protection, radioactive waste management, low-level radioactive waste, waste generator requirements, transportation, management organization and controls, and fire protection programs. The report covers a two-week inspection effort by three regional fuel facility inspectors.

Based upon the results of these inspections, these programs were acceptable. The inspections identified the following aspects of the programs as outlined below:

Transportation

- The licensee's preparation of transportation packages met the requirements of the regulations. The hazardous material training program was acceptable and in accordance with requirements specified in 49 CFR Part 172 (Paragraph 2.a).
- Radiation surveys were performed adequately on incoming shipments (Paragraph 2.b).
- The licensee adequately met the Certificate of Compliance requirements for a fuel assembly container (Paragraph 2.c).
- Licensee personnel were adequately trained and knowledgeable of the requirements for transportation of radioactive materials (Paragraph 2.d).
- The licensee was adequately generating and storing the receipt and shipment records for radioactive shipments (Paragraph 2.e).

Management Organization and Controls

- The recently hired nuclear criticality safety engineers' training was appropriately documented (Paragraph 3.a).
- The licensee adequately controlled revisions to procedures, ensured revisions were reviewed and approved by required personnel, and ensured that current revisions were available to plant users (Paragraph 3.b).
- The licensee's audit program met regulatory requirements. The licensee was addressing issues found in their corrective action program. The licensee was aware of the delays in the schedule and was making efforts to address the delays (Paragraph 3.c).
- Regulatory Compliance Committee meetings were held as required by the license application. The Regulatory Compliance Committee's recommendations were entered into the corrective action program (Paragraph 3.d).

Environmental Protection

- The licensee's environmental monitoring procedures were acceptable and approved by management. There were no major changes to the procedures since the last inspection (Paragraph 4.a).
- The environmental program audits were thorough and corrective actions were tracked. However, commitment deadlines for a couple of less significant findings were allowed to be reissued because of other commitments and/or other priorities (Paragraph 4.b).
- The licensee maintained an acceptable quality control program for collecting and analyzing measurements from environmental samples. (Paragraph 4.c).
- The licensee adequately implemented the environmental monitoring requirements as set forth in the license application (Paragraph 4.d).

Radioactive Waste Management

- The calculated offsite dose from radioactivity in liquid effluents was significantly below regulatory requirements (Paragraph 5.a).
- The calculated offsite dose from radioactivity in airborne radiological emissions was significantly below regulatory requirements (Paragraph 5.b).
- No significant problems were identified with the effluent monitoring equipment, and no deviations from the procedures were observed (Paragraph 5.c).

Low-Level Radioactive Waste Storage

- The licensee's program for the storage, labeling, shipping, and tracking of low level radioactive waste (LLRW) was adequate (Paragraph 6).

Waste Generator Requirements

- The licensee's program for the management and shipment of LLRW for disposal met the requirements of the regulations (Paragraph 7).

Fire Protection

- The fuel processes, equipment, and material storage areas were operated in accordance with fire safety requirements. The fire protection program organization had not changed since the last inspection (Paragraph 8.a).
- Records for the inspection, testing, and maintenance of selected fire protection systems were adequately maintained. The observed fire protection system was adequately maintained to ensure their safety performance (Paragraph 8.b).

- The licensee's emergency response team was trained to perform its emergency response functions. Off-site organizations were available to provide aid in the event of a major emergency or structural fire. The fire drills conducted provided a challenging scenario adequate for maintaining the team's ability to deal with a fire emergency. The pre-fire plan was adequately implemented in the licensee's training program for plant personnel as well as off-site support agencies. (Paragraph 8.c).

Attachment:

List of Persons Contacted

Inspection Procedures Used

List of Items Opened, Closed, Discussed

List of Acronyms Used

REPORT DETAILS

1. Summary of Plant Status

These routine, announced inspections included a review of selected aspects of the licensee's programs for transportation, management organization and controls, environmental protection, radioactive waste management, low-level radioactive waste, waste generator requirements and fire protection. There were no plant upsets or unusual operational occurrences during the onsite inspections.

2. Transportation (Inspection Procedure (IP) 86740) R4

a. Preparation of Packages for Shipment Delivery of Completed Packages to Carriers

(1) Scope and Observations

The inspectors reviewed the preparation and delivery of packages, procedures, shipment records, and radiation surveys, to verify that they were in compliance with requirements. The inspectors observed the preparation of the shipping records for a carrier shipment. The inspectors noted the proper use of procedural checklists. The licensee used the appropriate labels and markings. No issues were identified.

The inspectors reviewed the hazardous material (HAZMAT) training program provided to employees involved with the handling of hazardous materials. The licensee's training program was set up to provide HAZMAT training once per three years in accordance with the requirements of 49 CFR Part 172. The inspectors reviewed training records of the staff performing the transportation activities and noted they were current on their training. In addition, the inspectors reviewed the hazardous material course material and determined that the HAZMAT training was acceptable and satisfied the requirements.

(2) Conclusions

The licensee's preparation of transportation packages met the requirements of the regulations. The HAZMAT training program was acceptable and in accordance with requirements specified in 49 CFR Part 172.

b. Receipt of Packages

(1) Scope and Observations

The inspectors observed an incoming shipment to verify that adequate radiation surveys were performed and that the shipping records were consistent with the shipment. The inspectors observed the activities involved for an incoming shipment. The radiation surveys performed on the shipment packages were adequate. The inspectors also reviewed the procedures that were used and noted that the licensee staff was in compliance with the procedures. No problems were identified with the handling of an incoming shipment.

(2) Conclusions

Radiation surveys were performed adequately on incoming shipments.

c. Certificates of Compliance (CoC)

(1) Scope and Observations

The inspectors reviewed the CoC for a fuel assembly container. The inspectors verified that the licensee was using the latest revision of the CoC. The inspectors observed container refurbishment required by the CoC. Operators performing the maintenance were knowledgeable of their duties and the requirements. The inspectors noted no CoC compliance issues.

(2) Conclusions

The licensee adequately met the CoC requirements for a fuel assembly container.

d. Management Controls

(1) Scope and Observations

The inspectors interviewed licensee personnel involved with transportation to determine if they were knowledgeable and qualified for their position. These interviews included transportation supervisors. The inspectors noted that these individuals were knowledgeable of 49 CFR transportation requirements, and the site's procedural requirements. The inspectors also verified that the licensee had a program to identify problems and to track them to completion. No issues were identified.

(2) Conclusions

Licensee personnel were adequately trained and knowledgeable of the requirements for transportation of radioactive materials.

e. Records and Reports

(1) Scope and Observations

The inspectors reviewed the records for a receipt shipment of material to verify that the forms were properly completed. The inspectors also reviewed the shipping manifests for four outgoing shipments to verify that the material was properly surveyed and categorized. The inspectors noted that the receipt forms were properly completed. The inspectors also verified that the licensee's procedures for the receipt of shipments were correctly performed. No issues were identified.

The inspectors verified that the hazard category, surface contamination, United Nations (UN) identification number, label name, criticality safety index, and transport index number for the last outgoing shipments were consistent and agreed with the

transportation regulations. The inspectors also verified that the licensee maintained records for shipments of material for at least three years. No significant issues were identified.

(2) Conclusions

The licensee was adequately generating and storing the receipt and shipment records for radioactive shipments.

3. Management Organization and Controls (IP 88005) F4

a. Organizational Structure

(1) Scope and Observations

The inspectors reviewed recently hired nuclear criticality safety (NCS) engineers training documentation. This documentation was appropriately completed. The recently hired NCS engineers were not performing independent reviews at the time of this inspection.

(2) Conclusions

The recently hired NCS engineers' training was appropriately documented.

b. Procedure Controls

(1) Scope and Observations

The inspectors reviewed the procedural control system to verify procedural changes and updates were performed adequately. The licensee maintained and revised procedures using their electronic training and procedure's system. Current procedures were electronically available plant wide. Paper copies were available for operator convenience as allowed by the area manager. The inspectors selected several procedures and verified they were updated as required, that revisions had been reviewed by required personnel, and that review and approval of the revised procedures was correctly documented. No issues were identified.

(2) Conclusions

The licensee adequately controlled revisions to procedures, ensured revisions were reviewed and approved by required personnel, and ensured that current revisions were available to plant users.

c. Internal Reviews and Audits

(1) Scope and Observations

The inspectors reviewed the licensee's system of internal reviews, audits, problem reporting, and corrective actions. The inspectors reviewed audits performed in the past twelve months and found license requirements were met. The inspectors verified that issues were captured in the corrective action program (CAP) and that issues and corrective actions were properly recorded and tracked. The inspectors noted that the licensee was behind on their commitments for several problems captured in CAP. The licensee was aware of the delays in the schedules and was making efforts to address the delays.

(2) Conclusions

The licensee's audit program met regulatory requirements. The licensee was addressing issues found in their corrective action program. The licensee was aware of the delays in the schedule and was making efforts to address the delays.

d. Safety Committees

(1) Scope and Observations

The inspectors verified that the Regulatory Compliance Committee (RCC) was chartered as required by the license application. The inspectors found the RCC met quarterly and recommendations were entered into the CAP for action. The inspectors verified that RCC meetings were scheduled for each quarter. No issues were identified.

(2) Conclusions

Regulatory Compliance Committee meetings were held as required by the license application. The Regulatory Compliance Committee's recommendations were entered into the CAP.

4. Environmental Protection (IP 88045) R2

a. Program/Procedure Changes

(1) Scope and Observations

The licensee's environmental program was reviewed to verify that environmental monitoring was implemented in accordance with Chapter 10 of the license application. The inspectors discussed with the staff involved in the environmental monitoring program changes that occurred in the organization since the last inspection. The inspectors noted that no major changes had occurred, except for interdepartmental transfers. The inspectors verified that the environmental monitoring program authority and responsibilities were delineated and designated in writing.

The inspectors also verified that management approved the procedures established to carry out various environmental monitoring activities at the facility, including establishing monitoring stations, quality control of records and measurements and conducting internal audits. Some changes in procedures had taken place as a result of the last NRC inspection conducted on August of 2004. The changes included correcting an inconsistency between ROP 06-006, "Collection of Weekly and Monthly Environmental Samples," and ROP 06-007, "Two Inch Well Sampling," regarding verification prior to shipment and providing more guidance in ROP-06-006 on how to collect soil, sediment, and vegetation samples. Another notable change was to procedure RA-102, "Internal Audits." The procedure now requires that the lead auditors be independent of the program area being audited. The inspectors verified that the changes to procedures were approved by licensee management. No problems were identified.

(2) Conclusions

The licensee's environmental monitoring procedures were acceptable and approved by management. There were no major changes to the procedures since the last inspection.

b. Internal Audits and Inspections

(1) Scope and Observations

The inspectors reviewed selected portions of the following documents pertaining to internal audits and inspections of the environmental monitoring program:

- RA-102, Revision 15, "Environmental Health & Safety Compliance Inspections"
- RA-106, Revision 12, "Internal Program Audits"
- Vendor Audit dated December 6, 2002
- Vendor Audit dated January 31, 2003
- Chapter 10, of the license application, "Environmental Protection"

The licensee was required to perform biennial audits of its vendors as required by Section 10.5 of the license application, "Evaluations." The inspectors reviewed the licensee's biennial audits of their vendor programs. The inspectors noted that the audits were detailed and thorough. The licensee physically visited the facilities, conducted interviews, and reviewed various in-house procedures and analytical equipment as documented in the reports. The audits were performed by the environmental engineer who had numerous responsibilities in the environmental program.

The licensee had recently revised their procedure, RA-106, "Internal Audits," in March of 2005, to provide more independent oversight of the internal auditing process. In past audits, the licensee identified that some of the internal audits in the environmental program were not independent. Most of the audits had been conducted by the environmental engineer. The current revision requires the lead auditor to be independent from the area being audited and a creation of an audit team, requiring at least two individuals.

The inspectors reviewed documentation for informal inspections and self-assessments to determine the status of findings identified and tracked in the corrective action program. Based on document reviews, and interviews with the audit staff, the inspectors found that the licensee had identified safety problems and the findings were tracked in the corrective action program. However, the inspectors noted that commitment deadlines for a couple of less significant findings were reissued several times because of other commitments and/or other priorities. The inspectors found that the procedures were silent on how many times commitments deadlines could be reissued. No other issues were identified.

(2) Conclusions

The environmental program audits were thorough and corrective actions were tracked. However, commitment deadlines for a couple of less significant findings were allowed to be reissued because of other commitments and/or other priorities.

c. Quality Control of Analytical Measurements

(1) Scope and Observations

The inspectors reviewed the licensee's quality control program for environmental samples. The inspectors reviewed selected environmental monitoring and sampling results for the environmental program and verified that there were no significant anomalies or errors in the data generated in-house or from a vendor. The inspectors also verified that the licensee had an adequate chain of custody process in place for the environmental samples.

(2) Conclusions

The licensee maintained an acceptable quality control program for collecting and analyzing measurements from environmental samples.

d. Monitoring Stations, and Monitoring Program Reports

(1) Scope and Observations

The inspectors verified that the licensee was in compliance with Chapter 10 of the license application. Monitoring results for surface water, soil, vegetation, sediment, fish, ground water wells, and environmental air samples were reviewed to assess the radiological impact to the environment due to plant operations. The licensee's 2004 and first quarter of 2005 results for these environmental samples were collected at the required frequency and the gross alpha and the gross beta activity levels were consistently below the regulatory requirements. Also, the inspectors observed the condition of selected environmental monitoring equipment located around the perimeter of the facility. The sampling equipment was functional, but a significant amount of rainfall during the summer had caused two of the monitoring station areas to be overgrown with brush and weeds. The licensee was reminded that the areas needed to be kept clean of brush and debris because this might impact the air sampling equipment. No significant problems were identified.

(2) Conclusions

The licensee adequately implemented the environmental monitoring requirements as set forth in the license application.

5. Radioactive Waste Management (IP 88035) R3a. Radioactive Liquid Effluents, and Records and Reports(1) Scope and Observations

The licensee's liquid effluent program was reviewed for compliance with the requirements of 10 CFR Part 20 and Chapter 10 of the license application. The inspectors reviewed the licensee's semi-annual effluent reports for 2004 and the first semi-annual report for 2005 which were required by 10 CFR 70.59. The activity is summarized in the table below in comparison with the results reported for 2001 through 2004.

Radioactivity in Liquid Effluents Released From 2001 to 2004, in Millicuries (mCi)

Isotope	2001 (mCi)	2002 (mCi)	2003 (mCi)	2004 (mCi)
U ²³⁴	53.7	54.6	46.3	42.0
U ²³⁵	1.9	1.9	1.6	2.0
U ²³⁸	7.6	7.7	6.5	6.0
Total Uranium	63.2	64.2	54.4	50.0

Monitoring results for 2004 indicated that the facility's radiological effluents for this period had slightly decreased from the previous monitoring period in all areas except for U²³⁵. The calculated offsite dose attributable to liquid effluents was less than 0.3×10^{-3} millirem per year (mrem/yr) which was well within the annual dose limit specified in 10 CFR Part 20. The inspectors also reviewed the data analysis results of the liquid effluent release records for 2004 and the first half of 2005. Based on the documents reviewed, no problems were identified.

(2) Conclusions

The calculated offsite dose from radioactivity in liquid effluents was significantly below 10 CFR Part 20 criteria.

b. Radioactive Airborne Effluents, and Records and Reports

(1) Scope and Observations

The licensee's airborne effluent program was reviewed for compliance with the requirements of 10 CFR Part 20 and Chapter 10 of the license application. The inspectors reviewed the licensee's semi-annual effluent reports for 2004 and the first half semi-annual report for 2005 which were required by 10 CFR 70.59.

The inspectors reviewed the total quantities of radioactive materials in airborne effluents released in 2004. The inspectors observed that the licensee had experienced a slight increase in airborne effluent activity from 510 microcuries (μCi) in 2003 to 511 μCi in 2004. The total effective dose equivalent (TEDE) to an individual at the site boundary due to airborne effluents was less than 0.4 mrem/yr, well within the annual dose constraint limit of 10 mrem/yr as specified in 10 CFR Part 20 and the facility's investigational level of 1 mrem/yr. Based on the documents reviewed, the inspectors did not note any issues.

(2) Conclusions

The calculated offsite dose from radioactivity in airborne radiological emissions was significantly below 10 CFR Part 20 criteria.

c. Effluent Monitoring Instruments and Procedures

(1) Scope and Observations

The inspectors verified that the stacks were monitored continuously and that the equipment was in a good operating condition. The inspectors observed the collection of several stack air samples and noted that procedures were followed. No significant radiological issues were observed.

The inspectors reviewed selected portions of the following procedures pertaining to the radioactive waste management program:

- RA-401, Revision 14, "Environmental Control Requirements"
- ROP 06-003, Revision 9, "Ambient Environmental Air Monitoring for Radioactivity"
- ROP 06-006, Revision 13, "Collection of Routine Weekly and Monthly Environmental Samples"
- ROP 06-001, Revision 19, "NPDES, Daily, Weekly, and Monthly Effluent Sample Collection"
- ROP 06-002, Revision 16, "Roof Effluent Air Sampling and Counting"
- ROP 06-007, Revision 10, "Two Inch Well Sampling"

(2) Conclusions

No significant problems were identified with the effluent monitoring equipment, and no deviations from the procedures were observed.

6. Low-Level Radioactive Waste Storage (IP 84900) R5**a. Management Controls and Surveys, Adequacy of Storage Area, Package Integrity and Labeling, and Radioactive Solid Waste****(1) Scope and Observations**

The licensee's program for the storage, labeling, shipping, and tracking of low level radioactive waste (LLRW) was reviewed. The licensee stored contaminated solid waste generated from the fuel areas in drums and in sea-land containers which were sent for burial. The inspectors toured LLRW staging areas and observed that waste containers were labeled properly, and no significant container degradation was observed. The inspectors reviewed the LLRW records and verified several containers for location and for information, including the quantity of radionuclides. Also, the inspectors reviewed documentation for packaging LLRW material into a sea-land container for burial and shipment. No issues were identified.

The inspectors reviewed selected portions of the following procedures pertaining to the low-level radioactive waste and storage program:

- COP-831001, Revision 43, "Handling, Processing, & Disposing of LLRW"
- COP-831010, Revision 25, "Shipping Low Level Radioactive Waste"
- COP-841001, Revision 17, "Low Level Radioactive Scrap Handling"

(2) Conclusions

The licensee's program for the storage, labeling, shipping, and tracking of LLRW was adequate.

7. Waste Generator Requirements (IP 84850) R6**a. Management Controls, Quality Assurance, Waste Manifests, Waste Classification, Waste Form and Characterization, Waste Shipment Labeling, and Tracking of Waste Shipments****(1) Scope and Observations**

Classification, packaging, shipping, and tracking of LLRW were reviewed to verify that activities were conducted in accordance with the requirements to Appendix G of 10 CFR Part 20, and 10 CFR 61.55 and 61.56.

The inspectors' review of LLRW shipments made in 2004 involved the examination of shipping manifests, tracking of radioactive shipments, labeling, and quality control records. The inspectors verified that the waste was classified and characterized in accordance with 10 CFR Part 61 requirements, and the licensee provided an acceptable level of information in the shipping papers to determine the quantities of each individual

radionuclide shipped. Proper notification was made to the licensed waste facility prior to shipments of the radioactive material. The inspectors verified that the licensee received an acknowledgment of receipt for the waste. No problems were identified.

(2) Conclusions

The licensee's program for the management and shipment of LLRW for disposal met the requirements of the regulations.

8. Fire Safety (IP 88055) O4

a. Fire Protection Program Management/Organization; Fire Safety of Process, Equipment, and Storage Areas

(1) Scope and Observations

The inspectors reviewed the wet chemical process, the uranium recovery area, the pelleting area, and the material storage areas to verify that they were operated in accordance with fire safety requirements. The inspectors reviewed the licensee's procedure for control of combustible materials in process areas and interviewed operations personnel regarding the application and use of the procedure. No issues were identified. The inspectors also verified that flammable liquids were properly stored in designated cabinets. The inspectors observed that transient combustibles in the operating process areas were adequately controlled to levels below that which could result in a significant fire. The inspectors walked down plant areas surrounding the uranium conversion and fuel manufacturing operation building and noted that surroundings were kept free of significant amounts of transient combustibles large enough to be a fire exposure hazard.

The inspectors reviewed the operation of sintering furnaces and the calciners. The inspectors observed that the fire safety systems in the furnaces were properly operating, and flame detectors were properly positioned. The inspectors discussed the organization of the fire protection program with the Chief of the Emergency Response Team. The Chief stated that no organizational changes had occurred since the last inspection. No safety concerns were identified.

(2) Conclusions

The fuel processes, equipment, and material storage areas were operated in accordance with fire safety requirements. The fire protection program organization had not changed since the last inspection.

b. Review of Documentation Related to the Fire Protection Program, Building Design, Construction, Ventilation System, Fire Protection Systems, Fire Hazard Analysis, and Integrated Safety Analysis (ISA)

(1) Scope and Observations

The inspectors reviewed the ISA for the uranium conversion and the pelleting areas, and walked down fire safety systems referenced in the ISA. The inspectors examined selected fire safety systems to verify they were maintained in proper condition for use. The inspectors observed a selection of fire safety features that were described in the ISA including but not limited to: hydrogen detectors, fire dampers, smoke and heat detectors, and wall penetrations. The inspectors also observed portable extinguishers through the plant site. Portable extinguishers were charged to the normal operating zones and no visible damage was noted. The inspectors accompanied a licensee technician during a visual inspection of fire extinguishers and no problems were noted. The inspectors also observed fire doors throughout the facility and found them clear of debris and in proper working condition.

The inspectors reviewed selected fire protection inspection, testing, and maintenance records provided by the licensee and the licensee's insurer. No problems were identified with the records, which included observations and inspections of fire doors and dampers, emergency lights, sprinkler systems, smoke detectors, fire hose stations, post indicator valve, diesel pumps, alarm system, fire truck, hydrogen detectors, and the fire protection water system.

(2) Conclusions

Records for the inspection, testing, and maintenance of selected fire protection systems were adequately maintained. The observed fire protection system was adequately maintained to ensure their safety performance.

c. Pre-Fire Plan, Emergency Response Team Training, Fire Emergency Drills, and Off-Site Support

(1) Scope and Observations

The inspectors discussed the emergency response team and training program with the emergency response team chief, and reviewed initial and continuing training records, including monthly training, for members of the emergency response team. The inspectors verified that the members of the emergency response team were current on their required training and that a sufficient number of fire brigade members were qualified to perform their emergency response functions. The inspectors verified that the county's fire department was kept informed of plant changes, that they were provided with the licensee's most current pre-fire plan, and that communication between them was open. Personnel that worked for the fire department were interviewed to verify their familiarity with the site and the hazards present throughout the facility.

Fire drills were conducted in conjunction with the fire brigade basic training or refresher training. The inspectors interviewed personnel that participated in the most recent fire drill as well as the person in charge of developing the emergency drill scenario. The fire brigade team members could clearly explain the drill scenario, including initiating conditions, mitigating actions taken due to the circumstances of the fire, and actions needed to assure the safety of plant personnel in a real event. The scenarios reviewed by the inspectors were adequate in providing the fire brigade adequate training for a real emergency at the plant.

The records reviewed by the inspectors confirmed that the licensee had incorporated its pre-fire plan into their training program and into communications with off-site support agencies. No issues were identified.

(2) Conclusions

The licensee's emergency response team was trained to perform its emergency response functions. Off-site organizations were available to provide aid in the event of a major emergency or structural fire. The fire drills conducted provided a challenging scenario adequate for maintaining the team's ability to deal with a fire emergency. The pre-fire plan was adequately implemented in the licensee's training program for plant personnel as well as off-site support agencies.

9. Exit Interview

The inspection scope and results were summarized on August 4 and August 12, 2005, with the licensee. The inspectors described the areas inspected and discussed in detail the inspection results. Although proprietary documents and processes were occasionally reviewed during this inspection, proprietary information is not included in this report. Dissenting comments were not received from the licensee.

ATTACHMENT

1. LIST OF PERSONS CONTACTED

Licensee

C. Aguilar, Manager, Uranium Recycle and Recovery System
H. Brownsee, Pellet-TM
D. Colwell, HP Engineer
P. Deneal, Conversion Team Manager
R. Gale, Manager, Chemical Operations
D. Graham, Criticality Technician, Environmental, Health, Safety
J. Heath, Manager, Environmental, Health and Safety Engineering
J. Hooper, Environmental, Health and Safety Engineer
S. McDonald, Manager, Environmental, Health and Safety
J. Nickel, Environmental, Health and Safety Engineer
D. Precht, Acting Plant Manager
T. Shannon, Operations Manager, Environmental, Health and Safety

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

2. INSPECTION PROCEDURES USED

IP 84850	Radioactive Waste Management - Inspection of Waste Generator Requirement of 10 CFR Part 20 and 10 CFR Part 61
IP 84900	Low-Level Radioactive Waste Storage
IP 86740	Transportation
IP 88005	Management Organization and Controls
IP 88035	Radioactive Waste Management
IP 88045	Environmental Protection
IP 88055	Fire Protection

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

4. LIST OF ACRONYMS USED

ADAMS	Agency-wide Document Access and Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CoC	Certificate of Compliance
EH&S	Environmental Health and Safety
HAZMAT	Hazardous Materials
IP	Inspection Procedure
ISA	Integrated Safety Analysis
LLRW	Low-Level Radioactive Waste

μCi	microcurie
mCi	millicurie
mrem/yr	millirem per year
NCS	Nuclear Criticality Safety
NRC	Nuclear Regulatory Commission
RCC	Regulatory Compliance Committee
SNM	Special Nuclear Material
TEDE	Total Effective Dose Equivalent
U^{234}	Uranium 234
U^{235}	Uranium 235
U^{238}	Uranium 238
UN	United Nations