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

July 27, 2005

Mr. Russell B. Starkey, Jr.
Vice President - Operations
United States Enrichment Corporation
Two Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: NRC INSPECTION REPORT 07007001/2005-005 - PADUCAH

Dear Mr. Starkey:

On July 2, 2005, the NRC completed a routine inspection at the Paducah Gaseous Diffusion Plant. The purpose of the inspection was to determine whether activities authorized by the certificate were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection on July 7, 2005, the NRC inspectors discussed the findings with members of your staff.

This inspection consisted of an examination of activities conducted under your certificate as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your certificate. Areas examined during the routine inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities in progress, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations.

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

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

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

Docket No. 07007001
Certificate No. GDP-1

Enclosure: NRC Inspection Report

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	07007001
Certificate No.:	GDP-1
Report No.:	07007001/2005-005
Facility Operator:	United States Enrichment Corporation
Facility Name:	Paducah Gaseous Diffusion Plant
Location:	Paducah, KY
Dates:	May 8, through July 2, 2005
Inspectors:	Mary Thomas, Acting Senior Resident Inspector David Hartland, Senior Fuel Facility Inspector Wayne L. Britz, Fuel Facility Inspector Cynthia Taylor, Fuel Facility Inspector Adrienne King, Inspector-in-Training
Approved by:	Jay Henson, Chief Fuel Facility Inspection Branch 2 Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

United States Enrichment Corporation
Paducah Gaseous Diffusion Plant
NRC Inspection Report 07007001/2005-005

This inspection included aspects of certificatee safety operations, radiological controls, and facility support. The report covered resident and region-based inspection activities, including follow-up to issues identified during previous inspections.

Plant Operations

- Routine operations activities were conducted in accordance with written procedures. Routine communications among operators were adequate (Paragraph 2.a).

- The inspectors identified some corrosion on the jet station barrier frame in Building C-337A and questioned whether the frame could have performed its intended safety function. An unresolved item was identified regarding the inspectors' review of the certificatee's analysis of the as-found condition of the jet station barrier frame (Paragraph 2.b).

Maintenance and Surveillance

- Maintenance and surveillance activities were conducted appropriately and in accordance with approved procedures. Acceptance criteria contained in surveillance procedures were adequate and, when required, assessment and tracking reports were initiated (Paragraph 3.a).

Chemical Operations

- The certificatee had an adequate program for chemical hazard identification and assessment (Paragraph 4.a).

- The certificatee had an adequate program for maintenance and inspection, and maintenance of change (Paragraph 4.b).

- The certificatee was implementing an adequate emergency response program for chemical emergencies (Paragraph 4.c).

- The certificatee was implementing an adequate incident investigation program (Paragraph 4.d).

Fire Safety

- Fire protection and detection equipment observed by the inspectors was adequately maintained. Housekeeping was adequate to ensure fire hazards were minimized (Paragraph 5.a).

- The inspectors concluded that pre-fire plans were maintained and building surveys performed in accordance with certificatee procedures (Paragraph 5.b).

Environmental Protection Program

- The environmental audit program was consistent with the requirements specified in the certificate application. The environmental program audits were thorough and corrective actions were tracked to resolution (Paragraph 6.a).

- The certificatee maintained an acceptable quality control program for collecting and analyzing measurements from environmental samples (Paragraph 6.b).

- The certificatee's environmental monitoring program was implemented in accordance with the certificate requirements. Environmental sampling results for vegetation, soil and ambient air since the last inspection showed uranium and fluoride activities near background levels in the environment (Paragraph 6.c).

Waste Management

- The liquid effluent program effectively maintained effluent concentrations below the limits specified in the certificate (Paragraph 7.a).

- The gaseous effluent monitoring program was effective in controlling and measuring effluents, and compliant with the requirements of the certificate. The effluent air sampling equipment, including the sample delivery lines, had been properly maintained. Calculated offsite doses were well below regulatory limits (Paragraph 7.b).

Radioactive Waste Generator Requirements

- The radioactive waste shipment tracking system records and waste shipment manifests were complete and accurate. The program for the disposal of low-level radioactive waste was compliant with regulatory requirements. The certificatee's programs and procedures for maintaining control and quality assurance of radioactive waste shipments were found to be adequate (Paragraph 8.a).

Low-Level Radioactive Waste Storage

- Low-level radioactive waste was stored in accordance with regulatory requirements. The waste storage facilities and activities were consistent with applicable certificate and regulatory requirements (Paragraph 9.a).

Attachment:
Partial List of Persons Contacted
Inspection Procedures Used
List of Items Opened, Closed, and Discussed
List of Acronyms

REPORT DETAILS

1. Summary of Plant Status

The certificatee performed routine operations throughout the inspection period. Plant assay was held steady to achieve low power operations. A mild earthquake occurred on June 20, 2005. There was no damage to the plant.

2. Plant Operations

a. Conduct of Operations - Routine Operations Activities

(1) Scope and Observations (88100)

The inspectors observed routine operations activities and discussed routine operations with staff and management. In addition, the inspectors reviewed the applicable area control room log books and routine surveillance forms. The inspectors observed operators respond to various alarms.

The inspectors observed routine operations in the cascade buildings and area control rooms, the feed vaporization facilities, product and tails withdrawal facilities, and the central control facility. The operations staff were alert and generally knowledgeable of the current status of equipment associated with their assigned facilities.

(2) Conclusions

Routine operations activities were conducted in accordance with written procedures. Routine communications among operators were adequate.

b. Safety System Walkdown - Jet Station Barrier Structure

(1) Scope and Observations (88100)

During a safety system walkdown of the C-337A Facility, which was shut down for the summer during low power operations, the inspectors observed that corrosion had developed on the jet station barrier frame on the angle iron holding the bumper onto the southern beam such that the angle iron was separating from the beam. The angle iron was stitch-welded to the beam. The inspectors also observed corrosion at the junctions of the horizontal and vertical beams on this same side. The apparent cause of the corrosion was exposure to the weather.

The certificatee took credit for the jet station barrier frame, as required by Technical Safety Requirement (TSR) 2.2.5.5, such that "the structural design characteristics of the C-337-A jet station barrier frame prevent a horizontal impact from a crane-carried load from causing a uranium hexafluoride (UF_6) primary system integrity failure in the C-337-A jet station piping. Analysis of the frame structure determined that a cylinder/barrier frame collision for fast speed conditions could cause the barrier frame to permanently deform, but in all analyzed collision scenarios the frame would not collapse or contact the UF6 primary system piping."

The inspectors discussed their observations with the certificatee, who then performed a more extensive inspection and photographed the top side of the beam. The photographs showed that the top side was also corroded and had delaminated in some places. The certificatee declared the structure inoperable and developed a plan for further analysis and repair before the C-337A Facility would be restored to operation in August. The inspectors' review of the certificatee's analysis of the as-found condition of the jet station barrier frame, including the ability to perform its intended safety function, is an unresolved item (URI 07007001/2005-005-01).

(2) Conclusions

The inspectors identified some corrosion on the jet station barrier frame in Building C-337A and questioned whether the frame could have performed its intended safety function. A URI was identified regarding the inspectors' review of the certificatee's analysis of the as-found condition of the jet station barrier frame.

c. Miscellaneous Open Item Closures (92701)

(Closed) CER 41223: Product Withdrawal Building High Voltage UF_6 Detection System was disabled due to loss of power. The root cause of this event was foreign material that was present in the transformer secondary breaker installed in the 2PPA1 substation that resulted in a fire and subsequent loss of power to the UF_6 Detection System.

As corrective action, the certificatee revised the foreign material exclusion policy to apply to contractors as well as staff and revised applicable procedures to ensure adequate inspection of breakers prior to installation. The inspectors reviewed these corrective actions and have no further questions. This item is closed.

(Closed) CER 41378: Autoclave Water Inventory Control System failure, Valve XV-434 did not go fully closed. The root cause of this safety system failure was inadequate work practices by the manufacturer in machining and inspecting the valve during fabrication. As a result, the valve failed to close because a piece of the actuator casting broke loose and lodged inside the operating mechanism.

As corrective action, the certificatee replaced all valve actuators of the same make and model as the XV-434 valve with an actuator of enhanced design. In addition, the certificatee required that the manufacturer submit a certificate documenting compliance with foreign material exclusion requirements. The inspectors reviewed these corrective actions and have no further questions. This item is closed.

(Closed) CER 41465: Safety system actuation, C-360 lab area process gas leak detection actuation. The root cause of this event was an insufficient amount of support for the PL-437 valve. A packing leak developed due to vibration, resulting in a small release of uranium hexafluoride. The certificatee intended to provide additional support brackets for the valves in the sample cabinet by June 15, 2006. The inspectors have no further issues, and this item is closed.

(Closed) URI 2002003-01: Determine if contractors performing modifications on safety-related components are covered TSR 3.2.2.b hours of work restrictions. The inspectors reviewed available time sheets and determined that no contract workers

exceeded the TSR hours of work requirements. In addition, the contractors performed work involving installation of new equipment in the plant that was isolated from existing operating systems, and post modification test results of the equipment was satisfactory. The inspectors have no further issues, and this item is closed.

3. Maintenance and Surveillance

a. Maintenance and Surveillance Activity Reviews

(1) Scope and Observations (88102 and 88103)

For the maintenance and surveillance activities listed below, the inspectors verified one or more of the following: activities observed were performed in a safe manner; testing was performed in accordance with procedures; measuring and test equipment was within calibration; TSR Limiting Conditions for Operations were entered, when appropriate; removal and restoration of the affected components were properly accomplished; test acceptance criteria were clear and conformed with the TSR and the Safety Analysis Report; and any deficiencies or out-of-tolerance values identified during the testing were documented, reviewed, and resolved by appropriate management personnel.

- Work Order (WO) 116061 and 116243, Cylinder valve changes;
- WO 0210861, Remove/replace sample cabinet glovebox and ventilation system for gloveboxes 1, 3, and 4;
- WO 0503659, Repair RCW header pair R3/S4 in C-333.
- WO 0503750, Perform quarterly CAAS surveillances for Clusters AJ, Z, AA, and AB;
- WO 0503756, Calibrate NMC&A Scale Number 15 in C-315 in accordance with NMC&A program requirements;
- WO 0503765, Calibrate cell datum and cell deviation according to CP4-GP-IM6130;
- CP4-GP-IM6130, " 000 Cell Datum and Deviation Calibration," Revision 9;
- WO 0503904, Fabricate and test belly bands for lifting 48 OM cylinders at C-333-A according to Procedure CP4-GP-BG2114;
- CP4-GP-BG2114, "Fabrication of Wire Rope Chokers and Slings," Revision 0;
- WO 0504583, Replace sample manifold Dalton fitting for C-335, Unit 1 line recorder using GWP-314;
- GWP-314, [Generic Work Package], "Line Recorder Repair and/or Calibration," Revision 5;

- WO 0504725, Calibrate cell datum and cell deviation according to CP4-GP-IM6130;
- WO 0505250, Quarterly CAAS surveillance on Clusters G and H;
- WO 0506811, Replace Valve NCXD located in the jet station;
- WO 0509850, Calibrate ½ pound light on C-360 Autoclave #1; and,
- WO 0510005, Annual cycling of High Pressure Fire Water System sectional valves.

The inspectors observed that the certificatee staff effectively implemented work control practices and associated radiological controls during the above listed maintenance activities.

(2) Conclusions

Maintenance and surveillance activities were conducted appropriately and in accordance with approved procedures. Acceptance criteria contained in surveillance procedures were adequate and, when required, assessment and tracking reports (ATRs) were initiated.

4. Chemical Operations (IP 88057, 88062, 88063, 88064, 88065)

a. Hazard Identification and Assessment (IP 88057, O2.02)

(1) Scope and Observations

The inspectors reviewed the hazard identification and assessment program to determine whether the certificatee had an adequate organization and controls in place to implement the program. The inspectors discussed the program with the certificatee and determined that there were no major changes in the program since the previous chemical safety inspection. The inspectors reviewed the process safety information for the water treatment plant, pump houses, chlorine storage yard, chlorine trifluoride system, and the fluorine system and the hazard analyses for the balance of plant facilities, the water treatment plant, pump house, and chlorine system. No issues were identified.

(2) Conclusions

The certificatee had an adequate program for chemical hazard identification and assessment.

b. Maintenance and Inspection, Maintenance of Change (IP 88062, O2.07; IP 88063, O2.08)

(1) Scope and Observations

The inspectors reviewed the certificatee's program for maintenance and inspection, and for the maintenance of change. The inspectors observed chemical safety practices employed during maintenance on several system components. The inspectors observed the workers' safety practices, work packages, pre-job briefs, radiation work permits, safety work permits, protective clothing and respirator use, and procedural use. No issues were identified.

The inspectors reviewed engineering service orders for systems in two buildings. The engineering service orders contained the unreviewed safety question determinations, safety evaluations, and the determinations required for 10 CFR 76.68 plant changes.

(2) Conclusions

The certificatee had an adequate program for maintenance and inspection, and maintenance of change.

c. Emergency Procedures (IP 88064, O2.09)

(1) Scope and Observations

The inspectors reviewed the certificatee's emergency response procedures for chemical emergencies that had the potential to affect the facility's operations with special nuclear material. The inspectors reviewed the *Hazardous Materials Facility Emergency Plan for SARA Title III*, the *Emergency Plan for Building 400*, the *Plant Emergency Management Program*, *Computer Generation of Plume Models for Emergency Response*, and *EAL's for Hazardous Chemicals*. The inspectors reviewed a hazardous materials drill critique, toured the Emergency Operations Center, and discussed the emergency preparedness program with the Emergency Management staff. No issues were identified.

(2) Conclusions

The certificatee was implementing an adequate emergency response program for chemical emergencies.

d. Incident Investigation (IP 88065, O2.10)

(1) Scope and Observations

The inspectors reviewed the certificatee's incident investigation program to ensure that procedures and practices were being properly followed and maintained. The tracking system for incidents provided information to support management tracking needs. The system tracked open and closed items. The inspectors reviewed a surveillance

performed by the Nuclear Safety and Quality organization which assessed items in the action item tracking system. The inspectors observed that the system was utilized by the certificatee for tracking corrective actions developed as a result of incidents, audits, and inspections.

The inspectors observed and discussed an equipment issue that occurred during the inspection. The inspectors determined that the certificatee was following the established procedures for the incident investigation. No problems or issues were noted.

(2) Conclusions

The certificatee was implementing an adequate incident investigation program.

5. Fire Safety (IP 88055)

e. Fire Safety of Process, Equipment, and Storage Areas (O4.04)
Fire Protection Systems (O4.05)

(1) Scope and Observations

The inspectors performed walk-down inspections and reviewed test results to ensure proper inspection, testing, and maintenance (ITM) of key fire safety systems and equipment important to safety. The inspectors also reviewed other documentation to assess compliance with certificate requirements.

The inspectors conducted walk-down inspections of UF_6 process areas and pump houses. Portable fire extinguishers were charged to the normal operating zones and no visible damage was noted. The inspectors observed that fire doors throughout the facility were in proper working condition and that emergency egress pathways were clear of obstructions. The inspectors noted that housekeeping was adequate and that areas were kept free of transient combustibles large enough to be a fire exposure hazard.

However, during a walk-down, the inspectors observed an impairment tag hanging on sectional valve RCW-631-3W that indicated “valve shut” when, in fact, it was in the open (fail-safe) position. In response, certificatee staff removed the tag, issued ATR-05-2345, and intended to revise the tag to include a valve open or shut indication status.

The inspectors reviewed functional test records and examined equipment for selected fire protection systems including pumps, valves, alarms, and sprinkler systems. The inspectors determined that the ITM for the fire protection systems reviewed was adequate and that the equipment was maintained in proper condition for use.

(2) Conclusions

Fire protection and detection equipment observed by the inspectors was adequately maintained. Housekeeping was adequate to ensure fire hazards were minimized.

b. Review of Documentation Related to the Fire Protection Program, Insurer's Audit and Safety Committee (O4.O2), Pre-Fire Plan (O4.07)

(1) Scope and Observations

The inspectors reviewed the certificatee's pre-fire plans for various buildings to determine if they had been maintained in accordance with certificatee procedures. The inspectors observed that the pre-fire plans identified the location of fire fighting equipment such as connections to automatic fire suppression systems, sprinkler control valves, standpipes, and fire hydrants. Also, the plans included a description of the special hazard areas in each building. The inspectors also reviewed the annual surveys for these buildings. The inspectors noted that findings were entered in the corrective action program and building managers were informed of the survey results. No problems were identified.

(2) Conclusions

The inspectors concluded that pre-fire plans were maintained and building surveys performed in accordance with certificatee procedures.

6. Environmental Protection (Inspection Procedures (IP) 88045)

a. Environmental Program Audit Review (R2.02)

(1) Scope and Observations

The inspectors reviewed the certificatee's environmental program audits since the last inspection (August 2, 2004) to determine if the program was consistent with the certificate application. Specifically, the inspectors reviewed the monthly and quarterly audits. The inspectors noted that the audits were appropriately distributed to ensure that they received the appropriate management review. The environmental program audits were thorough and corrective actions were tracked to resolution.

(2) Conclusions

The environmental audit program was consistent with the requirements specified in the certificate application. The environmental program audits were thorough and corrective actions were tracked to resolution.

b. Quality Control of Analytical Measurements (R2.03)

(1) Scope and Observation

The inspectors reviewed the certificatee's quality control program for environmental samples. The inspectors reviewed selected environmental monitoring and sampling procedures for the environmental program and verified that there were no significant changes to the procedures since the last inspection. The inspectors also verified that the certificatee had an adequate chain of custody process in place for environmental samples.

(2) Conclusions

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

c. Monitoring Program Implementation and Results (R2.06)

(1) Scope and Observation

The inspectors reviewed selected portions of the certificatee's environmental program to verify that environmental monitoring was implemented in accordance with the certificate requirements. The inspectors also verified the certificatee's capabilities to measure and assess environmental radiological contamination as a result of plant operations.

The inspectors reviewed selected environmental sampling results from soil, sediment, ambient air, and vegetation collected since the last inspection. The certificatee was required to perform uranium analyses on these samples. The inspectors determined that the sample results were consistently well below the certificatee's action levels. The environmental sampling results reviewed by the inspectors for vegetation, ambient air and soil showed uranium and fluoride activities near background levels in the environment. The inspectors also reviewed the waste effluent monitoring and sampling results from the wastewater treatment facility and the sludge and effluent sampling results from the sanitary sewage system. Neither set of results showed a significant change from the last inspection.

The inspectors toured the environmental monitoring locations as specified in the certificate application. The sample locations were consistent with certificate requirements. The inspectors observed the collection of daily composite samples from several outfall locations. In addition, the operation of several ambient air samplers and thermoluminescent dosimeter (TLD) locations were observed. The liquid effluents were continuously sampled at the certificatee's effluent stations and the flow measured at outfalls and the lift stations. The inspectors observed that the areas were clean from debris, operational, and functional.

(2) Conclusions

The certificatee's environmental monitoring program was implemented in accordance with the certificate requirements. Environmental sampling results for vegetation, soil and ambient air since the last inspection showed uranium and fluoride activities near background levels in the environment.

7. Waste Management (IP 88035)

a. Liquid Effluent Monitoring Results (R3.01)

(1) Scope and Observation

The inspectors reviewed the liquid effluent monitoring data for the facilities to verify that releases were compliant with the limits specified in the certificate application requirements. The reported liquid releases in the sewage effluent for calendar year

2004 were below the applicable limits in 10 CFR Part 20, Appendix B. The inspectors determined that the certificatee's liquid effluent monitoring programs were effective in controlling and measuring effluents and met the requirements of the certificate.

(2) Conclusions

The liquid effluent program effectively maintained effluent concentrations below the limits specified in the certificate.

b. Airborne Effluent Program Controls, Instrumentation, Ventilation, and Airborne Effluent Monitoring Results (R3.02)

(1) Scope and Observations

The inspectors examined the main stack effluent sampling station located in C-310 to ensure that equipment was properly maintained and representative samples were being collected. The inspectors reviewed the airborne effluent monitoring results to verify that releases were within certificate application limits.

The inspectors observed the collection and sample preparation for the main effluent stack at C-310. The stack samples were taken properly by the environmental staff in accordance with Procedure CP4-EW-EV6250, "C-310 Vent Stack Sampling." No significant changes to the procedure or the program were noted since the last inspection. The enclosure used to protect the sampling equipment from environmental conditions and the polyethylene delivery lines were in good condition and showed no signs of damage or corrosion. The inspectors observed the preparation of the samples for laboratory analysis and reviewed the chain of custody procedures. No problems were found.

The inspectors reviewed the stack sampling results and quantities of airborne radioactive materials released for the period August 2004 to June 2005, and the semiannual effluent release report to the NRC for the second half of 2004. The calculated offsite doses for gaseous effluents was .02 mrem per year for 2004. This measurement was well below the 10 CFR 20.1101(d) constraint level of 10 mrem per year. In addition, TLD measurements were 14 mrem per year for 2004, a slight increase from the 2003 measurement of 13.04 mrem per year. The certificatee attributed the increase to a TLD location near a cylinder storage area. The regulatory limit was 100 mrem per year at the facility fence line.

(2) Conclusions

The gaseous effluent monitoring program was effective in controlling and measuring effluents, and compliant with the requirements of the certificate. The effluent air sampling equipment, including the sample delivery lines, had been properly maintained. Calculated offsite doses were well below regulatory limits.

8. Waste Generator Requirements (IP 84850)

a. Waste Manifest R6.03, Waste Classification R6.04, Waste Form and Characterization R6.05, Waste Shipment and Labeling R6.06,Tracking of Waste Shipments R6.03

(1) Scope and Observations

The inspectors reviewed the certificatee's program for preparing waste shipping manifests and tracking waste shipments. The inspectors also verified that the certificatee had established and maintained adequate management controls of procedures and processes to ensure compliance with the requirements of 10 CFR Part 20, Appendix G, and 10 CFR 61.55 and 61.56.

The inspectors reviewed the certificatee's procedures, shipping manifests, and records to determine compliance. Shipment records for solid and liquid waste disposal to a licensed waste burial facility for the period August 2004 to June 2005 provided an acceptable level of information in order to determine radioactive nuclide quantities. The documentation for radioactive waste shipped for the period August 2004 to June 2005 was complete and met the applicable requirements of 10 CFR Part 20, Appendix G, and 10 CFR 61.55 and 61.56. A procedure and program were in place to track waste shipments. The waste shipment tracking log was current including the acknowledgment of waste receipt.

The inspectors reviewed the quarterly radioactive waste handling audits that included a checkoff list of areas inspected by the certificatee and issues found. The corrective actions for issues identified in the audits were adequately addressed. The inspectors had no issues with the management, record keeping, and quality control of waste shipments.

(2) Conclusions

The radioactive waste shipment tracking system records and waste shipment manifests were complete and accurate. The program for the disposal of low-level radioactive waste was compliant with regulatory requirements. The certificatee's programs and procedures for maintaining control and quality assurance of radioactive waste shipments were found to be adequate.

9. Low-level Radioactive Waste Storage (IP 84900)

a. Adequacy of Storage Areas R5.02, Package Integrity and Labeling R5.03

(1) Scope and Observations

The low level radioactive waste (LLRW) storage management program was reviewed for adequacy of proper storage area, waste container integrity, and the safe shipment, processing, and disposal of LLRW. The waste tracking system was also reviewed for completeness and adequacy. In addition, audits of LLRW storage were reviewed.

The inspectors toured radioactive waste storage and processing areas in Buildings C-754, C-757, C-335, and observed that the areas were well maintained and that packages were properly tagged. No evidence of water intrusion into the buildings or significant degradation of equipment or containers was noted. In general, the material condition of the waste storage areas was adequate.

The inspectors determined that the waste storage database and the storage areas provided an accurate description and location of the waste. The inspectors observed a low-level waste shipment to one of the certificatee's contractors. The inspectors conducted walk downs of the low-level waste shipments and observed radiation and contamination surveys of the empty containers being returned. The inspectors reviewed the labeling on the B-25 boxes and compared it to the low-level waste-manifest and shipping papers and found no problems. In addition, the inspectors observed surveys of the truck at various locations for compliance with Department of Transportation regulations.

The inspectors determined that LLRW storage audits received appropriate management review, and the issues identified in the audits were promptly assigned and evaluated for further follow-up.

(2) Conclusions

Low-level radioactive waste was stored in accordance with regulatory requirements. The waste storage facilities and activities were consistent with applicable certificate and regulatory requirements.

10. Exit Meeting Summary

The inspection scope and results were summarized on July 7, 2005, with General Manager Steve Penrod and members of the facility management. The inspectors asked the certificatee staff whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT

1. PARTIAL LIST OF PERSONS CONTACTED

Certificatee

#S. Penrod, General Manager
#M. Keef, Plant Manager
#S. Cowne, Nuclear Regulatory Affairs Manager
#K. Ahern, Production Support Manager
#R. Helme, Engineering Manager
#C. Hicks, Scheduling Manager
#L. Jackson, Operations Manager
#J. Labarraque, Nuclear Safety and Quality Manager
#J. Lewis, Maintenance Manager
V. Shanks, Waste Management/Environmental Compliance Manager
D. Snow, Health and Safety Manager

#Attended exit meeting on July 7, 2005.

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

2. INSPECTION PROCEDURES USED

IP 84850	Radioactive Waste Generator
IP 84900	Low-level Radioactive Waste Storage
IP 88035	Waste Management
IP 88045	Environmental Protection
IP 88057	Hazard Identification and Assessment
IP 88062	Maintenance and Inspection
IP 88063	Maintenance of Change
IP 88064	Emergency Procedures
IP 88065	Incident Investigation
IP 88100	Plant Operations
IP 88101	Configuration Control
IP 88102	Surveillance Observations
IP 88103	Maintenance Observations
IP 92701	Follow-up

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
2005-005-01	Open	URI	The inspectors' review of the certificatee's analysis of the as-found condition of the jet station barrier frame, including the ability to perform its intended safety function.
41223	Closed	CER	Product Withdrawal building High Voltage UF_6 detection system was disabled due to loss of power.
41378	Closed	CER	Safety System Failure, C-360 Valve XV-434 did not go fully closed.
41465	Closed	CER	Safety System Actuation, C-360 lab area process gas leak detection actuation.
2002-003-01	Closed	URI	Determine if contractors performing modifications on safety-related components are covered by TSR 3.2.2.b.

4. LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ATR(s)	Assessment and Tracking Report(s)
CER	Certificatee Event Report
CFR	Code of Federal Regulations
GDP	Gaseous Diffusion Plant
IP	Inspection Procedure
ITM	Inspection, Testing, and Maintenance
LLRW	Low-Level Radioactive Waste
mrem	millirem
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PDR	Public Document Room
PGDP	Paducah Gaseous Diffusion Plant
TLD	Thermoluminescent Dosimeter
TSR	Technical Safety Requirement
UF_6	Uranium Hexafluoride
URI	Unresolved Item
USEC	United States Enrichment Corporation
WO	Work Order