



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

December 02, 2022

Mr. John Ellis, President
Sequoyah Fuels Corporation
P.O. Box 610
Gore, OK 74435

SUBJECT: NRC INSPECTION REPORT 040-08027/2022-002, SEQUOYAH FUELS
CORPORATION

Dear Mr. Ellis:

This letter refers to the routine, announced U.S. Nuclear Regulatory Commission (NRC) inspection conducted on August 15-17 and October 11-12, 2022, at your Sequoyah Fuels Corporation site in Gore, Oklahoma. This inspection examined activities conducted under your license as they relate to public health and safety, the common defense and security, and to confirm compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, tours of the site, measurements of radiation and radioactivity, and interviews with personnel.

The inspection included a review of site activities and confirmatory surveys of selected areas. The preliminary inspection findings were discussed with you and your staff at the conclusion of the two onsite inspections. A final exit briefing was provided to your radiation safety officer on November 29, 2022, after receipt and review of all remaining split soil sample results. No violations were identified, and no response to this letter is required.

In accordance with Title 10 of the *Code of Federal Regulations* Part 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Website at <https://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction.

Should you have any questions concerning this matter, please contact Dr. Robert Evans, Senior Health Physicist, at (817) 200-1234 or the undersigned at (817) 200-1249.

Sincerely,



Signed by Warnick, Gregory
on 12/02/22

Gregory G. Warnick, Chief
Decommissioning, ISFSI, and Operating
Reactor Branch
Division of Radiological Safety and Security

Docket No. 040-08027
License No. SUB-1010

Enclosure:
Inspection Report 040-08027/2022-002
w/Attachment: Supplemental Inspection Information

cc:
M. Broderick, ODEQ
M. Kautsky, DOE
W. Frazier, DOE

NRC INSPECTION REPORT 040-08027/2022-02, SEQUOYAH FUELS CORPORATION
 DATED DECEMBER 02, 2022.

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NRC Inspection Report 040-08027/2022-002, Sequoyah Fuels Corporation
 ADAMS ACCESSION NUMBER: **ML22335A221**

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION IV**

Docket No.: 040-08027

License No.: SUB-1010

Report No.: 040-08027/2022-002

Licensee: Sequoyah Fuels Corporation

Location Inspected: Gore, Oklahoma

Inspection Dates: August 15-17, 2022
October 11-12, 2022

Inspectors: Robert J. Evans, PhD, CHP, PE, Senior Health Physicist
Decommissioning, ISFSI and Operating Reactor Branch
Division of Radiological Safety and Security
Region IV

Marti R. Poston, Health Physicist
Uranium Recovery and Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery and Waste Programs
Office of Nuclear Material Safety and Safeguards

Accompanied by: Troy Johnson, Health Physicist
Decommissioning, ISFSI and Operating Reactor Branch
Division of Radiological Safety and Security
Region IV

Approved by: Greg Warnick, Chief
Decommissioning, ISFSI and Operating Reactor Branch
Division of Radiological Safety and Security
Region IV

Enclosure

EXECUTIVE SUMMARY

Sequoyah Fuels Corporation
NRC Inspection Report 040-08027/2022-002

The U.S. Nuclear Regulatory Commission (NRC) performed a routine, announced, onsite health and safety inspection on August 15-17 and October 11-12, 2022, at the Sequoyah Fuels Corporation facility in Gore, Oklahoma. The inspection included observations of site activities, independent radiation surveys, review of records, and interviews with site personnel. In summary, the licensee was conducting decommissioning activities in accordance with regulatory and license requirements.

Closeout Inspection and Survey

The inspectors reviewed the licensee's radiological survey design and sampling results for four areas around the edges of the site. The licensee's records indicate that its demonstration surveys of all four areas had been designed and implemented in accordance with the NRC-approved reclamation plan. The licensee's survey results were less than the limits specified in the reclamation plan. The licensee's records indicated that the four areas had been effectively remediated. (Sections 1.2.a, 1.2.b)

The inspectors conducted confirmatory surveys of the four areas. The confirmatory surveys included measurement of ambient gamma radiation levels and collection of soil samples. The gamma radiation levels and soil sample results were less than the respective action levels. One area was identified in the southeastern yard with potential contamination approaching the cleanup level. The licensee voluntarily removed this area from the survey unit for further review and remediation. (Sections 1.2.c, 1.2.d)

Decommissioning Inspection Procedure for Materials Licensees

The licensee was conducting reclamation with an emphasis on industrial and occupational worker safety. The licensee had sufficient staff for the work in progress. Based on a limited review, the licensee continued to implement its occupational exposure and groundwater, effluent, and environmental monitoring programs in accordance with license requirements. Decommissioning activities were being conducted in a manner that was protective of the health and safety for the workers, the public, and the environment. (Section 2.2)

Report Details

Site Status

Source Materials License SUB-1010, License Condition 51 requires Sequoyah Fuels Corporation (the licensee) to conduct decommissioning activities in accordance with the reclamation plan as described in its submittal dated January 4, 2008, as supplemented by letter dated June 25, 2008 (Agencywide Documents Access and Management System [ADAMS] Accession Numbers ML080220345 and ML08196023). The reclamation plan called for dismantlement and removal of systems and equipment, demolition of structures, treatment of sludge and sediments, remediation of contaminated soils, and treatment of wastewater. Consistent with the reclamation plan, most of the waste material by volume was being placed in an onsite cell for permanent disposal.

Since the last inspection, conducted in April 2022 (ML22125A116), the licensee continued to manage the decommissioning of the site in accordance with site procedures. The licensee continued to add waste to the disposal cell, conduct radiological surveys, and decommission the clarifiers. In the near future, the licensee plans to remediate the east berm of former pond 2 and the areas around the clarifiers. Weather permitting, the licensee plans to place all contaminated material into the disposal cell by 2023, followed by construction of the final cover on the cell.

1 Closeout Inspection and Survey (Inspection Procedure 83890)

1.1 Inspection Scope

The inspectors reviewed the results of the licensee's final demonstration surveys of four onsite areas to ensure that the surveys were conducted in accordance with the NRC-approved reclamation plan and site procedures. The inspectors conducted independent confirmatory surveys to verify that the areas had been remediated to acceptable radiological levels as stipulated in the reclamation plan prior to the licensee contouring or backfilling the areas.

1.2 Observations and Findings

a. Review of Demonstration Survey Results – August 2022 Inspection

At the time of the August 2022 inspection, the licensee had remediated and radiologically surveyed the former depleted uranium tetrafluoride (DUF₄) building parking lot and areas south of that parking lot. The southern area included the former Oklahoma Gas and Electric substation. These areas are located to the east of the disposal cell and north of the administrative building. The area of the former parking lot was approximately 3,989 square meters, while the area south of the parking lot was approximately 9,357 square meters including the 4,430 square meter substation area. The two areas were separated by a road used to access the disposal cell.

The reclamation plan states that soils outside the footprint of the disposal cell which contain uranium, radium, or thorium in excess of the site-specific cleanup criteria will be excavated and placed in the disposal cell. Follow up sampling will be done to determine if additional excavation is required and to demonstrate that the cleanup criteria have been satisfied. The licensee used the guidance provided in Attachment B, Final Status

Surveys, to the reclamation plan as well as site procedures to design and implement these demonstration surveys.

Figure Att. B-1 from the reclamation plan provides the classification of areas for the final status surveys. Based on the locations of these two areas, the licensee conservatively designated the former parking lot as a Class 1 survey unit and the area south of the parking lot as a Class 2 survey unit. (Survey unit classifications are defined in NUREG-1575, revision 1, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)). The radionuclides of concern included natural uranium but not radium-226 or thorium-230. The cleanup criteria are provided in Section 3.22 and Table 3-1 of the reclamation plan. The NRC-approved cleanup level for natural uranium is 100 picocuries per gram (pCi/gm) including background.

The survey requirements for each class of survey unit were provided in Attachment B and site procedures. The inspectors reviewed the licensee's remedial and final survey results, to ensure that the licensee had sufficiently demonstrated that the two areas had been remediated and radiologically surveyed prior to backfilling or recontouring.

For Class 1 survey units, the survey requirements include surface scans of the entire area and collection of one soil sample for every 250 square meters of surface area. For Class 2 survey units, the survey requirements include nearly 100 percent surface scans and collection of nine soil samples for every 10,000 square meters of surface area. The minimum required number of soil samples to be collected from the parking lot area was estimated to be 16 samples, while the minimum required number of soil samples to be collected from the area south of the parking lot was nine samples. In addition, site procedures require that additional duplicate and replicate samples be collected at a rate of one per 10 (10 percent) samples for measurement of precision and accuracy, respectively. The licensee collected 18 samples in the parking lot area and 12 samples from the area south of the parking lot. Thus, the licensee collected enough samples to meet reclamation plan and procedural requirements.

Attachment B states that scanning will be performed to identify areas of elevated radioactivity that may not be detected by other measures and methods. The licensee established an action level of three times background for these gamma walkover surveys. The licensee conducted the walkover survey using a rate meter coupled to a global positioning system device. The licensee used the information to create color-coded maps of both areas. The former DUF₄ parking lot area (Class 1) was mostly flat but the area south of the parking lot (Class 2) has one bank with a steep incline that was surveyed by hand. The licensee's documentation demonstrated that it had scanned almost 100 percent of the surface areas of both the Class 1 and Class 2 areas. The scan results were less than the action level of three times background.

The licensee collected a total of 30 soil samples, 18 samples from the Class 1 survey unit and 12 samples from the Class 2 survey unit. The licensee used an x-ray fluorescence analyzer to estimate the uranium concentrations in the soil samples. All 30 samples contained less than 10 micrograms of uranium per gram of soil (µg/g), with a cleanup level of 150 µg/g, equivalent to the NRC-approved cleanup level of 100 pCi/g. The licensee shipped the 30 soil samples to an offsite laboratory for analysis of total uranium concentration. The highest sample result was 7.82 µg/g. All soil sample results were well below the cleanup level provided in the reclamation plan.

In summary, the licensee's records indicated the former DUF₄ building parking lot and the area south of the parking lot had been effectively remediated. The licensee designed and implemented demonstration surveys that met the intent of the reclamation plan. The scan survey results were less than the action level, and the preliminary and final soil sample results were less than the cleanup level as specified in the reclamation plan.

b. Review of Demonstration Survey Results – October 2022 Inspection

During the October 2022 inspection, the inspectors reviewed the licensee's demonstration survey results for two additional areas. The first area was the 21,000 square meter open land area located south of the administrative building and southeast of the disposal cell. The second area was a 1,467 square meter strip of land located just south of the former fluoride clarifier and north/south fluoride settling basins. In accordance with Figure Att. B-1, the yard area was classified as a Class 2 area, while the strip of land was classified as a Class 3 area. The radionuclide of concern in both areas was natural uranium.

The inspectors reviewed the licensee's remedial and final demonstration survey results, to ensure that the licensee had sufficiently demonstrated that the two areas had been remediated and radiologically surveyed prior to backfilling or recontouring. As noted above, for Class 2 survey units, the survey requirements include nearly 100 percent surface scans and collection of nine soil samples for every 10,000 square meters of surface area. For Class 3 areas, the survey requirements include scanning most of the accessible portions of the survey unit and collection of nine soil samples per survey unit. (Attachment B to the reclamation plan does not list the upper or lower survey unit sizes for Class 3 areas; thus, the number of soil samples to be collected from the strip of land does not have to be a minimum of nine samples since this strip of land was part of a survey unit shared with other areas.)

The minimum required number of soil samples to be collected from the Class 2 yard area was calculated to be 21 samples, while there was no minimum required number of soil samples to be collected from the Class 3 strip of land. The licensee collected 23 samples from the yard area, and the licensee conservatively collected nine samples from the strip of land. The licensee collected enough samples to meet reclamation plan and procedural requirements.

As noted above, Attachment B to the reclamation plan states that scanning will be performed to identify areas of elevated radioactivity that may not be detected by other measures and methods. The licensee conducted walkover surveys of both areas using a rate meter coupled to a global positioning system device. The licensee conducted nearly 100 percent scans of both areas but excluded the paved road surface areas. The licensee used the scan information to create color-coded maps of both areas. The licensee's records indicate that the scan results in both survey units were less than the action level of three times background.

The licensee collected 32 soil samples, 23 samples from the Class 2 area and nine samples from the Class 3 area. The licensee used an x-ray fluorescence analyzer to estimate the uranium concentrations in the soil samples. The uranium concentrations in all 32 samples were less than or equal to 34 µg/g, with a cleanup level of 150 µg/g (equivalent to 100 pCi/g). The licensee shipped the 32 soil samples to an offsite laboratory for analysis of total uranium concentration. The highest sample result was

39.8 µg/g with an equivalent cleanup level of 150 µg/g. All soil sample results were below the cleanup level as provided in the reclamation plan.

In summary, the licensee’s records indicated the southeastern yard area and the strip of land south of the former fluoride clarifier and setting basins had been effectively remediated. The licensee designed and implemented demonstration surveys that met the intent of the reclamation plan. The scan survey results were less than the action level, and the preliminary and final soil sample results were less than the cleanup level as specified in the reclamation plan.

c. NRC Confirmatory Survey – August 2022 Inspection

The inspectors conducted confirmatory surveys of the former DUF₄ building parking lot and the area south of the parking lot, including the former switchyard area. The purpose of the confirmatory surveys was to confirm the effectiveness and accuracy of the licensee’s demonstration surveys relative to whether the areas met the acceptance criteria established in the reclamation plan. The NRC chose to conduct confirmatory surveys of the areas, since some surface areas would be inaccessible after backfilling or recontouring. The confirmatory surveys included measurement of ambient gamma exposure rates and collection of soil samples, consistent with the licensee’s survey methodology.

The inspectors conducted the gamma scans to measure the ambient gamma radiation exposure rates. Prior to conducting the scan surveys, the inspectors measured the ambient background levels to establish action levels for the survey meters. The ambient background measurements were recorded outside of the restricted area in the yard adjacent to the administrative building. Because the licensee’s action level was set at three times the measured background, for consistency, the inspectors’ action levels were also set at three times the measured background levels.

During the scan surveys, the inspectors noted that some of the measurements may have been impacted by the radiation emanating from the disposal cell which was located adjacent to the surveyed areas. However, as summarized in Table 1 below, none of the scan survey measurements exceeded the action level of three times background:

Table 1: Scan Survey Results (in units of counts per minute)

NRC Meter	Serial Numbers	Calibration due dates	Background	Survey results	Area of survey
Radeye SX with SPA-3	52210 19212	10/25/2022	10,000	8000-11,700	Former DUF ₄ parking lot
Radeye SX with SPA-3	52198 19211	5/10/2023	10,100	8800-11,900	Former DUF ₄ parking lot
Radeye SX with SPA-3	52210 19212	10/25/2022	9,200	8000-11,700	Area south of parking lot
Radeye SX with SPA-3	52198 19211	5/10/2023	10,000	8800-11,900	Area south of parking lot

The inspectors' scan survey results were noted to be generally consistent with the licensee's final demonstration survey results.

The inspectors collected 10 soil samples from the combined areas. Four samples were collected from the Class 1 area and six samples were collected from the Class 2 area. More samples were collected from the Class 2 area, because the Class 2 area was larger than the Class 1 area. The licensee split the samples with the NRC. The licensee used an x-ray fluorescent meter to estimate the uranium concentrations in the NRC's samples. The results were less than the cleanup level of 150 µg/g. The inspectors shipped the 10 soil samples to the NRC's contract laboratory for analysis (ML22272A508), while the licensee shipped its split samples to its contract laboratory. The sample results are presented in Table 2:

Table 2 - Split Sample Results (August 2022)

NRC Sample ID	Licensee ID	Radionuclide	NRC (pCi/g)	Licensee (µg/g)
NRC-113	HA-2393	Total Uranium	4.4	12.2
NRC-114	HA-2394	Total Uranium	15.8	17.0
NRC-115	HA-2395	Total Uranium	13.9	3.04
NRC-116	HA-2396	Total Uranium	11.2	2.13
NRC-117	HA-2397	Total Uranium	12.7	2.17
NRC-118	HA-2398	Total Uranium	2.75	2.71
NRC-119	HA-2399	Total Uranium	3.3	3.66
NRC-120	HA-2400	Total Uranium	3.55	3.94
NRC-121	HA-2401	Total Uranium	6.23	8.01
NRC-122	HA-2402	Total Uranium	2.9	4.51

Slight variations in the results can be attributed to different analytical methods and possible inconsistencies in the split of the sample. Regardless, all NRC sample results were less than the 100 pCi/g cleanup level provided in Table 3-1 of the reclamation plan, and the licensee's sample results were less than the equivalent cleanup level of 150 µg/g.

In summary, the gamma scan results at the former DUF₄ building parking lot and area south of the parking lot were less than the action level of three times background, and the soil sample results were less than the cleanup levels specified in the NRC-approved reclamation plan.

d. NRC Confirmatory Survey – October 2022 Inspection

During the October 2022 inspection, the inspectors conducted confirmatory surveys of the southeastern yard area and the area just south of the former fluoride clarifier and north/south settling basins. As noted above, the purpose of the confirmatory surveys was to confirm the effectiveness and accuracy of the licensee's demonstration surveys relative to whether the areas met the acceptance criteria established in the reclamation

plan. The confirmatory surveys included measurement of ambient gamma exposure rates and collection of soil samples.

Prior to conducting the scan surveys, the inspectors measured the ambient background levels to establish action levels for the survey meters. The ambient background measurements were recorded outside of the restricted area in the yard adjacent to the administrative building. Because the licensee’s action level was set at three times the measured background, for consistency, the inspectors’ action levels were also set at three times the measured background levels.

During the scan surveys, the inspectors noted that some of the measurements may have been impacted by the radiation emanating from the disposal cell which was located adjacent to the surveyed areas. However, as summarized in Table 3 below, none of the scan survey measurements exceeded the action level of three times background:

Table 3: Scan Survey Results (in units of counts per minute)

NRC Meter	Serial Numbers	Calibration due dates	Background	Survey results	Area of survey
Radeye SX with SPA-3	52210 19212	10/25/2022	8,000	5,000-15,500	Southeastern yard
Radeye SX with SPA-3	52198 19211	5/10/2023	8,000	5,000-16,400	Southeastern yard
Radeye SX with SPA-3	52210 19212	10/25/2022	8,000	8,000-11,000	Area south of fluoride clarifier and basins
Radeye SX with SPA-3	52198 19211	5/10/2023	8,000	8,100-12,500	Area south of fluoride clarifier and basins

The inspectors’ scan survey results were generally consistent with the licensee’s final demonstration survey results.

The inspectors collected nine split soil samples from the combined areas. Seven samples were collected from the Class 2 survey unit and two samples were collected from the Class 3 survey unit. The licensee used an x-ray fluorescent meter to estimate the uranium concentrations in the NRC’s samples. The results were less than the action level of 150 µg/g. However, the licensee elected to remove one sample, and the area where the sample was collected, from the Class 2 survey unit since it approached the action level of 150 µg/g. The inspectors shipped the remaining eight soil samples to the NRC’s contract laboratory for analysis (ML22333A946), while the licensee shipped its split samples to its contract laboratory. The sample results are presented in Table 4:

Table 4 – Split Sample Results (October 2022)

NRC Sample ID	Licensee ID	Radionuclide	NRC (pCi/g)	Licensee (µg/g)
NRC-123	HA-2426	Total Uranium	16.6	25.4
NRC-124	HA-2427	Total Uranium	17.2	24.9
NRC-125	HA-2428	Total Uranium	14.3	19.0
NRC-126	HA-2429	Total Uranium	54.9	57.7
NRC-127	HA-2430	Total Uranium	46.7	41.0
NRC-129	HA-2432	Total Uranium	20.1	1.14
NRC-130	HA-2433	Total Uranium	4.24	4.14
NRC-131	HA-2434	Total Uranium	3.51	3.56

Slight variations in the sample results can be attributed to different analytical methods and possible inconsistencies in the split of the sample. Regardless, all NRC sample results were less than the 100 pCi/g cleanup level provided in Table 3-1 of the reclamation plan, and the licensee’s sample results were less than the equivalent cleanup level of 150 µg/g.

After the onsite inspection, the licensee notified the inspectors to explain that the southeastern yard survey unit boundary had been modified to remove the area where the uranium concentrations in one soil sample (NRC sample number NRC-128, licensee sample number HA-2431) approached the cleanup limit using the x-ray fluorescent meter. The size of the area that was removed from the survey unit was estimated to be approximately 265 square meters. This area will be re-remediated and resurveyed by the licensee.

In summary, the gamma scan results at the southeastern yard area and area south of the fluoride clarifier and settling basins were less than the action level of three times background, and the soil sample results were less than the cleanup levels specified in the NRC-approved reclamation plan.

1.3 Conclusion

The inspectors reviewed the licensee’s radiological survey design and sampling results for four areas around the edges of the site. The licensee’s records indicate that its demonstration surveys of all four areas had been designed and implemented in accordance with the NRC-approved reclamation plan. The licensee’s survey results were less than the limits specified in the reclamation plan. The licensee’s records indicated that the four areas had been effectively remediated.

The inspectors conducted confirmatory surveys of the four areas. The confirmatory surveys included measurement of ambient gamma radiation levels and collection of soil samples. The gamma radiation levels and soil sample results were less than the respective action levels. One area was identified in the southeastern yard with potential contamination approaching the cleanup level. The licensee voluntarily removed this area from the survey unit for further review and remediation.

2 Decommissioning for Materials Licensees (Inspection Procedure 87104)

2.1 Inspection Scope

Determine if site activities were conducted in accordance with regulatory requirements and the license, and in a manner that will protect the environment and the safety and health of workers and the public.

2.2 Observation and Findings

a. Observation of Decommissioning Activities

The inspectors conducted site tours to observe decommissioning activities in progress. The licensee's contractor was actively remediating clarifiers 2A and 3A. Contaminated material was being stockpiled within the disposal cell for eventual spreading and compaction into the cell. The licensee has completed most of the placement of the rock and clay soil on the sides of the containment cell and continued to add waste materials and contaminated soils to the top of the cell. Future work included remediation of the soil under the former uranium storage yellowcake pad, former Pond 2 walls, and the areas west and south of the clarifiers.

Barrow areas that are no longer needed were being backfilled with clean soils and construction materials, including asphalt and concrete, generated due to highway construction waste through an agreement with a road construction company currently doing construction work on a nearby highway. The agreement also allows the construction company to park their vehicles in the clean barrow area when they are not in use. Stormwater Pond 5 remained open but was not in service. As a precaution, the licensee does not anticipate closing this pond until the NRC approves the licensee's proposed alternate concentration limits for groundwater. At the time of the inspection, the licensee planned to submit the application for alternate concentration limits to the NRC by the end of calendar year 2022.

The licensee possessed two cargo containers with barrels of radioactive material. The material included natural uranium bound for a mill in Utah as alternate feed and depleted uranium that the licensee planned to transfer or dispose. The licensee continued to pursue its options for transfer or disposal of the drummed material.

The inspectors measured the ambient gamma radiation exposure rates during site tours using a Thermo Scientific microrem dose rate meter (serial number 19354 with a calibration due date of 5/6/2023). With a background of 8-10 microRoentgen per hour ($\mu\text{R/hr}$), most areas of the site measured at or near background levels. The top of the disposal cell measured 14-15 $\mu\text{R/hr}$, and an area near the clarifiers measured 18 $\mu\text{R/hr}$. The highest measurement, approximately 600 $\mu\text{R/hr}$, was identified on the surface of a drum of DUF_4 material that was stored in a locked cargo container.

b. Occupational Radiation Protection

Details of the licensee's radiation protection program were provided in Appendix D of the reclamation plan. The program requirements include external and internal exposure monitoring, air sampling, respiratory protection, bioassay, contamination control, and instrumentation calibrations. The inspectors reviewed the licensee's implementation of its radiation protection program during observation of decommissioning activities. The

inspectors observed that employees were appropriately provided with personnel protective equipment as needed based on the work being performed. Employees were also observed conducting contamination surveys as needed when moving between contaminated and non-contaminated locations. Survey instrumentation in use was found to be calibrated and surveys appropriately documented.

c. Public Dose, Effluent Releases and Environmental Monitoring

The licensee conducted groundwater compliance monitoring as required by License Condition 49 and the licensee's groundwater monitoring plan (ML050680228). Routine groundwater monitoring was conducted for the constituents of concern, and the protection standards for each constituent were detailed in License Condition 49.B. The environmental monitoring program is defined in Chapter 5 of the reclamation plan and was approved by the NRC by letter dated December 21, 2010 (ML102740446). During site tours, the inspectors observed that effluent release points were monitored and outfalls appropriately clear and available for sampling. In summary, routine monitoring was conducted as required by the license.

d. Management Organization and Control

The licensee's organizational structure is presented in Section 2.2 and Figure 2-1 of the license renewal application, referenced in License Condition 9.1. The organizational requirements for reclamation are also provided in Section 1.0 of the Quality Assurance Program, referenced in License Condition 51.C. The inspectors observed that the duties and responsibilities previously assigned to the Environmental Safety and Health Manager, who retired earlier this year, have been split between three other managers, and the program appeared to continue to be managed efficiently and effectively.

2.3 Conclusion

The licensee was conducting reclamation with an emphasis on industrial and occupational worker safety. The licensee had sufficient staff for the work in progress. Based on a limited review, the licensee continued to implement its occupational exposure and groundwater, effluent, and environmental monitoring programs in accordance with license requirements. Decommissioning activities were being conducted in a manner that was protective of the health and safety for the workers, the public, and the environment.

3 Exit Meeting Summary

The NRC inspectors presented the preliminary inspection findings to the licensee's representatives at the conclusion of the two onsite inspections in August and October 2022. The final exit briefing was presented to the licensee's radiation safety officer on November 29, 2022.

SUPPLEMENTAL INSPECTION INFORMATION

Partial List of Persons Contacted

Licensee Personnel

J. Ellis, President
R. Miller, Contractor RMA
K. Schlag, Contractor, RMA

Inspection Procedures (IP) Used

IP 87104 Decommissioning for Materials Licensees
IP 83890 Closeout Inspection and Survey

Items Opened, Closed and Discussed

Opened

None

Closed

None

Discussed

None

List of Acronyms

ADAMS	Agencywide Documents Access and Management System
DUF ₄	depleted uranium tetrafluoride
IP	Inspection Procedure
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual (NUREG-1575)
µg/g	micrograms per gram
NRC	U.S. Nuclear Regulatory Commission
pCi/g	picocuries per gram
µR/hr	microRoentgen per hour