FINAL AUDIT REPORT OF REMEDIAL ACTION CONSTRUCTION AT THE UMTRA PROJECT RIFLE, COLORADO, SITE

January 1997

U.S. Department of Energy
Environmental Restoration Division
Albuquerque, New Mexico
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AT THE UMTRA PROJECT SITE
RIFLE, COLORADO

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Prepared for
U.S. Department of Energy
Environmental Restoration Division
UMTRA Project Team
Albuquerque, New Mexico

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1.0 INTRODUCTION

This final audit report summarizes the assessments performed by the U.S. Department of Energy (DOE) Environmental Restoration Division (ERD) and its Technical Assistance Contractor (TAC) of remedial action compliance with approved plans, specifications, standards, and 40 CFR Part 192 at the Rifle, Colorado, Uranium Mill Tailings Remedial Action (UMTRA) Project site. Remedial action construction was directed by the Remedial Action Contractor (RAC).

2.0 RADIOLOGICAL SURVEILLANCES AND AUDITS

The ERD and TAC performed three radiological surveillances (DOE, 1989a; 1990; 1991) and six radiological audits (DOE, 1993a; 1993b; 1994a (1994 report contains two audits); 1995a; 1995b) at the Rifle UMTRA Project site. The radiological surveillances and audits provided an independent assessment that the quality of remedial action work was sufficient to ensure compliance with U.S. Environmental Protection Agency (EPA) standards (40 CFR Part 192) and Department of Energy (DOE) orders. The radiological surveillances and audits the ERD and TAC performed included, but were not limited to, a comprehensive review of the RAC’s radiological/health physics (HP) procedures, instrument calibration records, data management, personnel monitoring, and operational performance of the contractors and subcontractors responsible for HP remedial action work at the former uranium ore processing sites and the uranium tailings disposal cell.

Table 1 summarizes the radiological surveillances and audits. The surveillances and audits resulted in 7 findings and 123 observations. All findings and observations that raised ERD concerns were resolved at the site or through subsequent corrective action. On December 9, 1996, all outstanding issues were closed with respect to the May 16, 1994 and September 12-14, 1994 audits.

3.0 QUALITY ASSURANCE IN-PROCESS SURVEILLANCES

The ERD and TAC performed 12 quality assurance (QA) in-process surveillances at the Rifle site to ensure the RAC properly implemented approved construction plans and specifications (DOE, 1992a; 1993c; 1993d; 1994b; 1994c; 1994d; 1995c; 1995d; 1995e; 1995f; 1996a; 1996b). A team consisting of at least one representative from the ERD and one QA TAC lead auditor performed the surveillances independent of the organizations who performed the work.

Objectives of the surveillances were to verify RAC compliance with the approved remedial action plan (RAP) (DOE, 1992b) and to implement the remedial action inspection plan (RAIP) (MK-F, 1996). The surveillance team accomplished the objectives by reviewing the approved RAP and RAIP, observing construction activities from established checklists, and observing testing and inspection activities performed by the RAC’s QC technicians in the field.

Table 1 summarizes the QA in-process surveillances, which resulted in 150 observations. Fourteen observations contained recommendations that required responses from the RAC.
Table 1 Summary of audits and surveillances

<table>
<thead>
<tr>
<th>Type/Date of activity</th>
<th>Total number of findings</th>
<th>Total number of observations</th>
<th>Number of findings requiring RAC response</th>
<th>Number of observations requiring RAC response</th>
<th>Date closed</th>
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<tbody>
<tr>
<td>DOE/TAC radiological surveillances/audits</td>
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<tr>
<td>SURVEILLANCE, June 5-8, 1989</td>
<td>0</td>
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<td>N/A</td>
<td>3</td>
<td>August 22, 1991</td>
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<tr>
<td>AUDIT, June 14-17, 1993</td>
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<td>17</td>
<td>N/A</td>
<td>11</td>
<td>January 17, 1994</td>
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<td>6</td>
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<tr>
<td>AUDIT, March 20-23, 1995</td>
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<td>23</td>
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<tr>
<td>AUDIT, August 7-9, 1995</td>
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<td>3</td>
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<td>SURVEILLANCE, S215, November 4-5, 1992</td>
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<td>SURVEILLANCE, QS93032, June 29 to July 1, 1993</td>
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<td>SURVEILLANCE, QS95150, March 28-30, 1995</td>
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<td>Close-Out Inspection, QA96205, October 22, 1996</td>
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<td>25</td>
<td>N/A</td>
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<td>December 11, 1996</td>
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<td>Other audits/surveillances</td>
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<td>NRC On-Site Construction Inspection, October 6, 1992</td>
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<td>NRC On-Site Construction Review, November 17, 1992</td>
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<td>NRC On-Site Construction Review, August 5, 1993</td>
<td>0</td>
<td>4</td>
<td>N/A</td>
<td>0</td>
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</tr>
</tbody>
</table>
On October 2, 1996, all outstanding issues were closed with respect to the May 13-14, 1996 surveillance.

4.0 REMEDIAL ACTION CLOSE-OUT INSPECTION

On October 22, 1996, an ERD and TAC inspection team performed a remedial action close-out inspection at the Rifle site to ensure remedial action followed approved construction plans and specifications. Personnel from the RAC were present.

The objective of the inspection was to determine if the degree of completion of the Rifle site was in accordance with approved site construction plans and specifications. The inspection team accomplished the objective by reviewing the latest editions of the RAP (DOE, 1992b), RAIP (MK-F, 1996), design specifications, and the RAC’s punch list of final walk-over items.

Table 1 summarizes the close-out inspection, which resulted in 25 observations and 17 open items. On December 9, 1996 (DOE, 1996c), the ERD sent a memo to the RAC listing the 17 open items and requesting that ERD be informed of their completion as they occur. Completion documentation for each of the 17 open items will be sent to the ERD. Verification of completion to the ERD’s satisfaction for open items will be determined by the ERD. Field verification of open items may be performed by the ERD at their discretion. The close-out inspection was closed administratively when the ERD issued its close-out inspection report to MK-Ferguson on December 11, 1996 (DOE, 1996d). Therefore, this final audit report segment of the site certification process is complete.

5.0 OTHER QUALITY ASSURANCE AUDITS/SURVEILLANCES

The U.S. Nuclear Regulatory Commission (NRC) performed three site visits (NRC, 1989; 1990; DOE, 1989b) and three on-site construction inspections or reviews (OSCR) (NRC, 1992a; 1992b; 1993).

The objectives of the site visits and OSCRs were to assess the effectiveness of the construction and QC programs and to ensure compliance with the RAP (DOE, 1992b), EPA standards (40 CFR Part 192), RAIP (MK-F, 1996) and approved plans and specifications. The site visits and OSCRs were accomplished by qualified personnel from the NRC who reviewed documentation, observed construction activities, and observed RAC QC staff perform testing and inspection activities in the field.

Table 1 summarizes the site visits and OSCRs. Twenty five observations were made during the site visits and OSCRs. One observation required a response from the RAC. All issues resulting from the site visits were considered resolved by the ERD after the August 5, 1993 OSCR. An NRC memo to ERD (NRC, 1993), dated November 16, 1993, stated that no open issues were generated from the August 5, 1993 OSCR (the NRC November 16 memo closed the August 5 OSCR). Issues from site visits and OSCRs that took place before the August 5, 1993 OSCR were resolved during subsequent site visits or OSCRs.
6.0 SUMMARY AND CONCLUSIONS

The ERD and TAC performed 3 radiological surveillances, 6 radiological audits, 12 QA surveillances, and 1 remedial action close-out inspection during remedial action construction at the Rifle site. Three NRC site visits and three NRC OSCRs were performed during remedial action construction at the Rifle site. A total of 298 observations and 7 findings were noted during the ERD and TAC audit and surveillance activities. Twenty-five observations were noted during the NRC site visits and OSCRs. Follow-up to required RAC responses for the ERD/TAC and NRC findings and observations indicated all issues related to the Rifle site were closed and/or resolved to the satisfaction of the ERD.

All audit and surveillance observations and recommendations have been closed out and/or resolved to the ERD's satisfaction. Therefore, this final audit report segment of the site certification process is complete.
7.0 REFERENCES


**CODE OF FEDERAL REGULATIONS**