**BURRELL, PENNSYLVANIA
VICINITY PROPERTY
LONG-TERM SURVEILLANCE
PLAN**

Final

**April 1993 Revised
September 1993 Revised**

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BURRELL, PENNSYLVANIA, VICINITY PROPERTY LONG-TERM SURVEILLANCE PLAN

FINAL

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MASTER

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION	1-1
1.1 Purpose	1-1
1.2 Site description	1-1
2.0 FINAL SITE CONDITIONS	2-1
2.1 Monuments, markers, and signs	2-1
2.1.1 Survey monuments	2-1
2.1.2 Boundary monuments	2-1
2.1.3 Site markers	2-1
2.1.4 Signs	2-1
2.2 Erosion control markers	2-2
2.3 Displacement monuments	2-2
3.0 SITE INSPECTION	3-1
3.1 Phase I inspection	3-1
3.2 Phase II inspection	3-1
4.0 GROUNDWATER MONITORING	4-1
4.1 Groundwater characterization	4-1
4.2 Groundwater monitoring program	4-4
4.3 Corrective action	4-7
4.4 Monitoring schedule and reporting	4-7
5.0 AERIAL PHOTOGRAPHY	5-1
6.0 CUSTODIAL MAINTENANCE AND CONTINGENCY PLANS	6-1
6.1 Custodial maintenance	6-1
6.2 Contingency plans	6-1
7.0 REPORTING AND RECORD KEEPING	7-1
8.0 REFERENCES	8-1
APPENDIX A SITE ACQUISITION	
APPENDIX B SITE INSPECTION PHOTO LOG	
APPENDIX C SITE INSPECTION CHECKLIST	
APPENDIX D VEGETATION CONTROL	
APPENDIX E AGENCY NOTIFICATION AGREEMENTS	

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1.1	Map of southwestern Pennsylvania showing the location of Burrell	1-2
2.1	Typical displacement monument detail	2-3
2.2	Typical surface displacement monument detail (for Monument number D-7, D-17, D-18)	2-4
4.1	Monitor well and surface sample locations, Burrell site, Pennsylvania	4-3

LIST OF DRAWINGS

Plate 1 Burrell Site Map

LIST OF TABLES

<u>Table</u>		<u>Page</u>
2.1	Location of displacement monuments	2-5
4.1	Monitor well completion data	4-5
4.2	Constituents analyzed during screening monitoring to determine background and baseline	4-6
4.3	Constituents currently analyzed in groundwater	4-6

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to establish elements of the U.S. Department of Energy (DOE) Long-Term Surveillance Plan (LTSP) for the Burrell, Pennsylvania, vicinity property. The U.S. Nuclear Regulatory Commission (NRC) will use this plan to support the issuance of a license for the long-term surveillance and maintenance of the Burrell vicinity property. The DOE and the NRC previously reached agreement regarding the issuance of a license for the Burrell vicinity property. This is a departure from the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, which requires the licensing only of disposal sites, not vicinity properties. However, given the unusually large volume of wastes and the distance from the Canonsburg disposal cell of the Burrell vicinity property, it was agreed that a license for a designed disposal cell with surveillance requirements constituted a reasonable and prudent approach in keeping with the spirit of UMTRCA.

The plans, procedures, and specifications proposed are based upon the Guidance for Implementing the UMTRA Project Long-term Surveillance Program (Guidance Document) (DOE, 1992). The rationale and procedures of the Guidance Document should be considered part of this plan.

1.2 SITE DESCRIPTION

The Burrell (BUR) vicinity property is located 1.6 kilometers (km) [1 mile (mi)] east of the Borough of Blairsville, Indiana County, in southwestern Pennsylvania (Figure 1.1). The Burrell vicinity property is bordered on the south by the Conemaugh River and on the north by the Consolidated Rail Corporation (ConRail) railroad tracks.

The Burrell site was acquired by the U.S. Federal Government July 14, 1986 (see Appendix A.) Title to Tract 201 (CA-200) was acquired in fee simple through condemnation proceedings, subject to existing easements for public roads and highways, public utilities, railroads, and pipelines. A perpetual and assignable easement and right-of-way in, on, over, and across Tract 201E was acquired from ConRail, subject to existing easement for public roads and highways, public utilities, railroads, and pipelines (Appendix A, Figure A.1).

The Burrell vicinity property covers approximately 29 hectares (72 acres). Disposal of the 10,500 tonnes (11,600 tons) of residual radioactive material (RRM) removed from the Canonsburg Uranium Mill Tailings Remedial Action (UMTRA) Project site took place within an approximately 0.6-hectare (1.6-acre) section in the western portion and an approximately 0.6-hectare (1.6-acre) section in the eastern portion of the Burrell vicinity property. The RRM was brought in as fill for under the ConRail railroad tracks. The excess RRM was placed in a storage location adjacent to the Conemaugh River at Burrell, which was later added to the disposal area. The disposal area contains a total of 78,000 tonnes (86,000 tons) of RRM.

2.0 FINAL SITE CONDITIONS

2.1 MONUMENTS, MARKERS, AND SIGNS

2.1.1 Survey monuments

Three permanent survey monuments were established at the Burrell vicinity property at the locations within the fenced area shown in Plate 1. The monuments were referenced to the nearest U.S. Geological Survey (USGS) or National Geodetic Survey (NGS) control networks using second-order standards.

The Berntsen Federal iron pin survey monuments are of precast concrete and were set in concrete, which was poured into a hole that extends at least 30 centimeters (cm) [12 inches (in)] below the frost line [total depth of approximately 122 cm (48 in)]. Additional details are provided in Section 4.1 of the Guidance Document.

2.1.2 Boundary monuments

Seven boundary monuments were placed as shown in Plate 1. The final locations of the boundary monuments were established to second-order standards and linked to the survey monument system. Additional details are provided in Section 4.2 of the Guidance Document.

2.1.3 Site markers

The Burrell vicinity property also has two granite site markers that identify the vicinity property (Burrell, Pennsylvania), indicate the general location of the tailings on the vicinity property (boundary and cell), and show the date of closure (July 2, 1987), the wet tonnage of tailings 78,000 tonnes (86,000 tons) in the disposal area, and the curies of radioactivity [4 curies radium-226 (Ra-226)]. One site marker was placed at the entrance to the vicinity property within the fence. The second site marker was placed near the northwest corner of the vicinity property (see Plate 1).

The site markers were set in beds of reinforced concrete, extending 30 cm (12 in) below frost line [approximately 122 cm (48 in) below grade]. The elevation and position of the site markers were determined by a survey of the same precision used in establishing the survey monuments (Section 2.1.1). Additional details are provided in Section 4.3 of the Guidance Document.

2.1.4 Signs

Signs displaying the international symbol that indicates the presence of radioactive materials were attached to the outside of the fence at 150-meter (m) [500-foot (ft)] intervals around the perimeter of the vicinity property, starting at the site entrance. The signs indicate that the site is Government property, that it contains uranium mill tailings, and that trespassing is forbidden. It also gives the name (DOE) and telephone number (303/248-6070) of the responsible agency. The signs are metal

(similar to highway signs). Additional details are provided in Section 4.4 of the Guidance Document.

2.2 EROSION CONTROL MARKERS

Due to the proximity of the vicinity property to the Conemaugh River, four sets of erosion control markers were installed: two sets adjacent to the ditch outlet to the river near the southeastern boundary, and two sets at the outfall of the west ditch where it enters the Conemaugh River (Plate 1). The purpose of the marker sets is to measure any possible erosion of the escarpment from the ditch down to the river. Each set consists of two monuments: one placed 1.5 to 3 m (5 to 10 ft) inland from the edge of the escarpment, and the other an additional 9 to 15 m (30 to 50 ft) inward (i.e., toward the center of the vicinity property). Subsequent measurements shall be made along the bearing formed by each set of markers. The position of the erosion control markers was determined by a survey of the same precision used in establishing the site survey monuments (Section 2.1.1).

Berntsen A-1 monuments were used. Each monument is 1.5 m (5 ft) long and was placed 0.3 m (1 ft) below frost line, leaving 0.3 m (1 ft) exposed above the surface.

2.3 DISPLACEMENT MONUMENTS

Differential settlement could occur across the embankment due to 1) the placement of the radon barrier and erosion protection layer, and 2) the long-term decay of organic debris. Twenty displacement monuments were installed during the remedial action to monitor possible differential settlement. Construction details and placement locations are shown in Figures 2.1 and 2.2, Plate 1, and Table 2.1. The displacement monuments were installed prior to placement of bedding and riprap, where possible, and settlement observations (i.e., survey to second-order standards) were made weekly until construction was completed. Horizontal measurements were initiated after placement of the bedding and riprap layer for as long as construction continued, since disturbance of the monuments might have occurred during riprap placement. The final locations of the displacement monuments were determined by a survey of the same precision used in establishing the site survey monuments (Section 2.1.1). Maximum settlement measured did not exceed 0.02 m (2.5 cm) [0.08 ft (1 in)] and maximum lateral displacements did not exceed 0.018 m (1.8 cm) [0.06 ft (0.7 in)]. The plots indicate that movements were small and compared closely with the limit of the settlement estimates. It is concluded that movements will be insignificant and that sagging of the embankment, which could have led to concentration of storm runoff, will not occur. Therefore, continued monitoring of these displacement monuments is no longer required. Displacement monument monitoring settlement plots were originally presented in the Burrell Vicinity Property Completion Report (DOE, 1988).

FIGURE 2.1
TYPICAL DISPLACEMENT MONUMENT DETAIL

FIGURE 2.2
TYPICAL SURFACE DISPLACEMENT MONUMENT DETAIL
(FOR MONUMENT NUMBER D-7, D-17, D-18)

Table 2.1 Location of displacement monuments

Monument No.	Stationing	Offset ^a
D-1	3+00	0
D-2	3+00	100'R
D-3	4+00	15'L
D-4	5+00	15'L
D-5	5+00	50'R
D-6	5+00	100'R
D-7	5+00	150'R
D-8	6+00	50'L
D-9	7+00	100'L
D-10	7+00	15'L
D-11	7+00	50'R
D-12	7+00	100'R
D-13	7+00	150'R
D-14	8+00	50'L
D-15	9+00	15'L
D-16	9+00	100'R
D-17	9+00	150'R
D-18	9+00	200'R
D-19	10+00	0'
D-20	11+00	200'R

^aR = right; L = left.

3.0 SITE INSPECTION

3.1 PHASE I INSPECTION

Phase I inspections shall be conducted annually. The inspection preparation and procedures are described in Section 6.0 of the Guidance Document. The photo log form and the inspection checklist, Appendix B and Appendix C, respectively, of this LTSP, shall be used.

The inspection team shall consist of, at a minimum, a geotechnical engineer and a hydrologist. The initial inspection occurred in the summer of 1988.

3.2 PHASE II INSPECTION

As noted in Section 7.3 of the Guidance Document, if the Phase I inspection has identified a potential problem, DOE shall notify the NRC and begin a Phase II inspection by submitting a preliminary assessment of the potential problem and a Phase II inspection plan. When the plan is approved by the NRC, it shall be implemented by the DOE. Once the Phase II inspection has been completed, DOE shall recommend maintenance or other actions to be performed as needed. Criteria for conducting Phase I and II inspections are covered in section 7.0 of the Guidance Document as "Follow-up and Contingency Inspections."

4.0 GROUNDWATER MONITORING

The EPA groundwater protection standards (40 CFR 192.02) specify that a groundwater monitoring program be implemented, as necessary, to evaluate the effectiveness of the remedial action and to demonstrate compliance with the groundwater standards and protection of human health and the environment. The need for, and extent of, post-closure groundwater detection and compliance monitoring at the Burrell site is based on a consideration of 1) the type of remedial action; 2) the applicable water resources protection strategy; 3) hydrogeologic characteristics in the vicinity of the disposal site; 4) background and baseline groundwater quality; 5) the potential for site-related contamination of groundwater; and 6) the potential impacts to current or anticipated groundwater use (DOE, 1992).

The remedial action at the Burrell site was completed prior to the issuance of the proposed EPA groundwater standards in 1987. However, the existing design of the disposal cell should be sufficient to provide long-term protection of human health and the environment. The DOE will monitor the groundwater at the Burrell site according to provisions in the Guidance Document (DOE, 1992) and the Remedial Action Plan (DOE, 1983).

4.1 GROUNDWATER CHARACTERIZATION

The Burrell site is underlain by up to 15 m (50 ft) of unconsolidated fill and alluvium that overlies claystones and shales of the Pennsylvanian Casselman Formation. Groundwater occurring beneath the site is unconfined in the unconsolidated material, and confined by approximately 9 to 12 m (30 to 40 ft) of claystone and shale in the underlying bedrock. Depth to groundwater in the unconsolidated material is in excess of 9 m (30 ft) beneath the land surface. The unconsolidated materials are recharged by direct infiltration of precipitation, and from groundwater flow beneath the site from the north and east. Groundwater flow in the unconsolidated material at the site is to the southwest and groundwater discharges to the Conemaugh River just south of the site. The predominant groundwater flow direction in the bedrock aquifer is to the south. Groundwater levels appear to vary seasonally, with higher levels occurring in the winter and lower levels occurring in the summer. Seasonal variations range up to 1.2 m (4 ft) in the unconsolidated material and up to 1 m (3 ft) in the shallow bedrock. Static groundwater level data and potentiometric surface maps are available in the permanent site files at the UMTRA Project Office.

Between October 1956 and January 1957, RRM, containing approximately 5.4 tonnes (6 tons) of uranium oxide, was transported by railroad from the Canonsburg site to a railroad fill material storage location adjacent to the Conemaugh River at Burrell, about 80 km (50 mi) northeast of Canonsburg. These contaminated materials are now contained in the disposal cell.

In order to characterize water quality in the vicinity of the Burrell site, water samples have been collected from monitor wells, surface water, and seeps from the disposal cell since 1987. Water samples have been analyzed for constituents of concern (Section 4.2) and a summary of the water quality is presented below. Results of chemical analyses of all water samples are available in the permanent site files at the UMTRA Project Office.

Background groundwater quality in the unconsolidated material and in the shallow bedrock (Casselman Formation) has been established by chemical analyses of water samples collected from monitor wells located upgradient from the disposal cell (Figure 4.1) (refer to Table 4.1). Background concentrations for those constituents having maximum concentration limits (MCL) were below the MCLs in groundwater in both the unconsolidated material and in the shallow bedrock.

The quality of potentially affected groundwater in the unconsolidated material and the shallow bedrock has been established by chemical analyses of water samples collected from monitor wells crossgradient and downgradient from the disposal cell (Table 4.1 and Figure 4.1). Contaminant concentrations in groundwater in the unconsolidated materials and in the shallow bedrock have declined overall since 1987. The decline in contaminant concentrations indicates that the impact of seepage from the contaminated materials in the disposal cell has decreased since closure. Concentrations of several constituents in groundwater exceeded MCLs during the first several years of post-closure monitoring, but no exceedance of the MCLs for any constituents of concern has been observed during the recent sampling periods. Results of the groundwater monitoring program to date indicate that groundwater in the unconsolidated material and the shallow bedrock beneath the site has not been affected by seepage from the disposal cell since completion of the remedial action.

Surface water samples from the Conemaugh River have been collected at locations upstream and downstream from the disposal cell (Figure 4.1). Concentrations of constituents with MCLs were consistently lower than their respective limits. No apparent changes have been observed over time in the surface water quality of the Conemaugh River.

Water was observed seeping through several areas on the lower portion of the south slope of the disposal cell cover at the Burrell site during July 1990 (JEG, 1992). Water samples were collected from the surface seeps during 1990 (Locations 611 and 612, Figure 4.1) and analytical results indicated that activities of combined Ra-226 and Ra-228 (9.1 and 8.9 pCi/L) exceeded the MCL by a factor of less than two. The seeps were sampled again during 1991, and analytical results of the February sample indicated that the activity of combined Ra-226 and Ra-228 (5.6 pCi/L) slightly exceeded the MCL in only one of the two locations (612) where it was detected in 1990. Both seeps were dry during the second sampling period in July 1991. Since 1991, the seeps have been dry, or if water was available for sampling, activities of radium were less than the MCL. It appears that the potential risk to human health and the environment resulting from the seeps is minimal.

There are no known downgradient groundwater users in the vicinity of the Burrell site. Most of the public water supply in the vicinity of the site is from protected surface water.

FIGURE 4.1
MONITOR WELL AND SURFACE SAMPLE LOCATIONS
BURRELL SITE, PENNSYLVANIA

4.2 GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program at the Burrell site is designed to evaluate the effectiveness of the remedial action and to demonstrate compliance with the groundwater standards and protection of human health and the environment. The groundwater monitoring program is consistent with provisions outlined in Section 5.4 of the Guidance Document (DOE, 1992).

The network used to monitor post-closure groundwater conditions at the Burrell site consists of 10 monitor wells that were installed during 1987. The monitor well network includes five pairs of wells, with one well per pair completed in the unconsolidated materials (fill and alluvium) (monitor wells 420, 421, 422, 423, and 424), and the other well completed in the underlying shallow bedrock of the Pennsylvanian Casselman Formation (monitor wells 520, 521, 522, 523, and 524) (Table 4.1). The monitor wells are located to characterize groundwater quality and groundwater flow conditions upgradient (background), crossgradient, and downgradient from the stabilized embankment (Figure 4.1). The 10 monitor wells were designed and installed according to UMTRA Project specifications as outlined in the Guidance Document. Monitor well completion records are available in the permanent site files at the UMTRA Project Office.

The groundwater monitoring program includes collecting and analyzing groundwater samples. Groundwater samples are collected from all monitor wells and were initially assessed for hazardous constituents reasonably expected to be in or derived from the RRM related to the uranium processing activities. Constituents analyzed during the screening monitoring to determine background and baseline groundwater quality included those listed in Table 4.2. The list of constituents analyzed was modified during subsequent sampling events to focus on hazardous constituents related to uranium processing activities. Based on preliminary groundwater quality data, the list of constituents currently analyzed includes those listed in Table 4.3. Compliance with groundwater regulations and protection of human health and the environment are based on assessment of trends observed in groundwater quality data in relation to background levels and site-specific conditions. The monitoring program is performed in accordance with UMTRA Project procedures and quality assurance/quality control (QA/QC) protocols as outlined in the Guidance Document (DOE, 1992).

Groundwater levels are measured in monitor wells to provide information on groundwater flow patterns and variations in groundwater elevations. These measurements are taken in accordance with UMTRA Project procedures as outlined in the Guidance Document (DOE, 1992).

Surface water in the Conemaugh River upstream and downstream from the site, and any seeps in the vicinity of the disposal cell, are also sampled according to the same schedule and specifications used for groundwater sampling and analysis.

Table 4.1 Monitor well completion data

Well number	Depth		Screened interval depth		Flow relation ^a	Hydrogeologic unit screened ^b
	(m)	(ft)	(m)	(ft)		
420	17.7	(58)	10.1-16.2	(33-53)	UG	1
421	16.8	(55)	9.1-15.2	(30-50)	UG	1
422	16.8	(55)	10.7-15.2	(35-50)	CG	1
423	16.2	(53)	10.1-14.6	(33-48)	DG	1
424	13.4	(44)	9.4-12.5	(31-41)	DG	1
520	48.2	(158)	31.1-47.9	(102-157)	UG	2
521	47.9	(157)	30.2-47.9	(99-157)	UG	2
522	47.2	(155)	31.9-47.2	(102-155)	CG	2
523	46.9	(154)	31.9-46.9	(102-154)	DG	2
524	45.7	(150)	31.9-45.7	(102-150)	DG	2

^aFlow relation: UG = upgradient, CG = crossgradient, DG = downgradient.

^bHydrogeologic unit: 1 = unconsolidated material, 2 = bedrock (Casselman Formation).

Table 4.2 Constituents analyzed during screening monitoring to determine background and baseline

Constituent	Constituent
Aluminum	Selenium
Ammonium	Silica
Antimony	Silver
Arsenic	Sodium
Barium	Strontium
Beryllium	Sulfate
Boron	Sulfur
Bromine	Thallium
Cadmium	Tin
Calcium	Total alkalinity
Chloride	Total dissolved solids
Chromium	Total kjeldahl nitrogen (TKN)
Cobalt	Total organic carbon
Copper	Uranium
Cyanide	Vanadium
Fluoride	Zinc
Iron	
Lead	<u>Radionuclides</u>
Magnesium	Gross alpha
Manganese	Gross beta
Mercury	Lead-210
Molybdenum	Polonium-210
Nickel	Radium-226
Nitrate	Radium-228
pH	Thorium-230
Phosphate	
Potassium	

Table 4.3 Constituents currently analyzed in groundwater

Constituent	Constituent
Ammonium	Nitrate
Calcium	Potassium
Chloride	Radium-226 and -228
Cyanide	Selenium
Gross alpha	Sodium
Iron	Sulfate
Lead	Total dissolved solids
Magnesium	Uranium
Manganese	Vanadium
Molybdenum	

4.3 CORRECTIVE ACTION

Trends or anomalies in groundwater quality will be compared to site-specific conditions. If groundwater quality is affected or is predicted to be affected so that the performance of the disposal cell is not protective of human health and the environment, the DOE will notify the NRC. The DOE will submit a corrective action plan to the NRC and implement the plan within 18 months of NRC notification.

4.4 MONITORING SCHEDULE AND REPORTING

Following the definition of background and baseline groundwater conditions at the Burrell site, all monitor wells were sampled twice a year for 5 years (through January 1993), and will be sampled annually thereafter (DOE, 1992). For detection monitoring, only the detection constituents and field parameters, along with selected constituents, will be assessed (Table 4.3). Sampling frequency and constituents to be analyzed may change upon request by the DOE for an amendment or modification to this final LTSP. Groundwater monitoring was initiated in June 1987, and will be continued at the Burrell site to evaluate post-closure performance of the disposal cell and to demonstrate the effectiveness of the remedial action.

Results of water quality analyses and groundwater elevations will be reported annually and will be available in the permanent site files at the UMTRA Project Office. The report will contain the data and results of the groundwater monitoring program obtained during the reporting period, an evaluation of the data, and a discussion of significant trends or anomalies in the groundwater quality and groundwater elevation data.

5.0 AERIAL PHOTOGRAPHY

One-time aerial photographs were obtained in October 1987, following the completion of construction. The vicinity property and the area within 0.4 km (0.25 mi) of its boundary were photographed.

The aerial photographs were taken with Kodak Aerochrome Infrared 2443 Film (240 millimeter). The objectives are to provide a permanent record of site conditions at closure and to expedite preparation of a topographic map of the site. The photographs are also a baseline against which to compare changes in site conditions over time. Specifications and procedures for flight planning, frequency, photography, and interpretation are contained in Sections 3.6 and 3.7 of the Guidance Document.

Photographic documentation can be found in the site file located at the DOE Grand Junction Projects Office in Grand Junction, Colorado.

6.0 CUSTODIAL MAINTENANCE AND CONTINGENCY PLANS

6.1 CUSTODIAL MAINTENANCE

Custodial maintenance for the Burrell vicinity property will consist of a vegetation control program to prevent the establishment of deep-rooted plants in the radon barrier of the disposal cell (Appendix D). Custodial maintenance shall be the responsibility of the Grand Junction Projects Office following final licensing of the Burrell site.

6.2 CONTINGENCY PLANS

The DOE shall become aware of problems through Phase I/II inspections, detection/compliance monitoring, or contingency inspection. A contingency inspection will be triggered by reports from Federal or state agencies or local authorities.

Sudden hazards that may affect the site include floods, earthquakes, tornadoes, and hurricanes; there is also a possibility of human intrusion. In order to be notified of unusual events, the DOE shall establish notification procedures with the following agencies and local authorities (Appendix E):

- Earthquake Information Center (EIC), Denver, Colorado.
- Pennsylvania State Police, Indiana County, Pennsylvania.
- Indiana County Emergency Management, Indiana, Pennsylvania.

The Indiana County Emergency Management shall notify the DOE (at the 24-hour telephone number, 303/248-6070, or fax number, 303/248-6040) within 8 hours of a county notification of a flash flood warning, tornado warning, or hurricane alert.

The EIC shall notify the DOE if the following seismic events occur (expressed as magnitude on the Richter scale):

- Any earthquake of magnitude 3.0 or greater, within 0.3 degrees [about 32 km (20 mi)] of the site.
- Any earthquake of magnitude 5.0 or greater, within 1.0 degree [about 113 km (70 mi)] of the site.

The state police shall notify the DOE if human intrusion (e.g., fence destroyed/removed), fire, or other unusual events occur.

Once it has been notified, the DOE shall conduct an immediate (i.e., contingency) inspection, call local or state officials to conduct the inspection and verify the report, and/or institute site repair. Additional details describing this process are available in Section 7.0 of the Guidance Document.

7.0 REPORTING AND RECORD KEEPING

The DOE shall provide an annual report to the NRC that summarizes, describes, and evaluates all surveillance and maintenance actions. A copy of all inspection, monitoring, maintenance, and contingency repair reports for the reporting period shall be appended to the report. Details of the reports are provided in the Guidance Document. These documents shall be contained in the permanent site files to be maintained by the DOE Grand Junction Projects Office in Grand Junction, Colorado.

8.0 REFERENCES

- DOE (U.S. Department of Energy), 1992. Guidance for Implementing the UMTRA Project Long-term Surveillance Program, UMTRA-DOE/AL-350124.0000, prepared by the U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico.
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APPENDIX A
SITE ACQUISITION

REAL ESTATE DOCUMENTATION
LONG-TERM SURVEILLANCE PLAN
BURRELL DISPOSAL SITE
INDIANA COUNTY, PENNSYLVANIA

GENERAL

Acquisition of the Burrell disposal site was finalized by civil action in the United States District Court for the Western District of Pennsylvania, Case Number 86-1475, July 14, 1986, United States of America, Plaintiff v/71.83 acres of land, more or less, situated in Indiana County, Commonwealth of Pennsylvania, and George Wm. Burrow, a/k/a George W. Burrows, et al., defendants. Final disposition of the case is dated December 27, 1988. The real estate associated with the disposal site contains "69.12 acres, more or less, including all of the area of muds, flats, and land under the waters of the Conemaugh River in which all rights, title, and interest extends or should extend by law or custom together with all riparian rights appertaining thereto." The case included 1.10 hectares (2.71 acres) of perpetual Right-of-Way leading from the southerly side of State Road, Legislative Route 32006, at Strangford to the disposal site.

DOCUMENTATION OF ACQUISITION

Disposal site/access

- (1) Legal descriptions—See attachment Tracts 201 and 201-E
- (2) Filed:
United States of America, Plaintiff v 71.83 acres of land, more or less, situated in Indiana County. Commonwealth of Pennsylvania, and George Wm. Burrow, a/k/a George W. Burrows, et al., defendants, Civil Action No. 86-1475, July 14, 1986, United States District Court for the Western District of Pennsylvania.

REPOSITORY

Real estate correspondence and related documents are maintained and filed by the Property Management Branch, Facilities and Property Management Division, Albuquerque Operations Office under the supervision of Corville J. Nohava, (505) 845-6450.

TRACT: 201E
OWNER: George Wm. Burrows, et ux
ACRES: 2.71

UMTRA Project
Department of Energy
Burrell Township, Pennsylvania
Road Easement

LEGAL DESCRIPTION

TRACT NO. 201E

A certain tract of land situated in the Township of Burrell, County of Indiana and Commonwealth of Pennsylvania, on the southerly side of Legislative Route 32006 at Strangford. Said tract of land is a right-of-way for a proposed haulroad, located partly along an existing private road and more particularly bounded and described as follows:

Beginning at the entrance to said private road on the southerly side of Legislative route 32006 (Strangford Road), said point is located westerly approximately 0.4 mile along Strangford Road from Toms Run and southerly approximately 0.8 mile along said road from Old State Route (Market Street). Said beginning point is also approximately 480 feet right of centerline Station 479+30 of the Consolidated Rail Corporation; thence, from said point of beginning, along the southerly side of said Strangford Road,

South 33° 30' East 110 feet; thence, leaving said Strangford Road, with the southerly line of said haulroad,

North 66° 30' West 90 feet,

South 59° 30' West 415 feet to an iron pin set in the northerly right-of-way line of said Consolidated Rail Corporation; thence, with said right-of-way line,

North 64° 11' West 1702 to a point on the northerly line of said haulroad; thence, leaving said railroad right-of-way line, with the said northerly line of said haulroad,

North 69° 49' East 74 feet,
South 64° 11' East 1400 feet,
South 69° 30' East 150 feet,
North 85° 00' East 200 feet,
North 59° 30' East 160 feet,
North 36° 30' East 100 feet,

North 06° 00' West 98 feet to a point on the said southerly side of Strangford Road; thence, along the southerly side of said road,

South 25° 50' East 127 feet to the point of beginning, containing 2.71 acres, more or less.

It is the intent of the above description to include a part of former railroad property described in the following deeds together with the former river channel riparian thereto:

1. Deed Book A-45, page 250 from Christopher Hill to the Western Pennsylvania Railroad Company, recorded 7 November 1882, in the records of Indiana County.

2. Deed Book 288, page 122 from Alva Forsha, et al to the Pennsylvania Railroad Company, recorded 1 July 1937, in the records of Indiana County.

3. Deed Book, B-54, page 38 from Jerome Bock, et al to the Western Pennsylvania Railroad Company, recorded 14 October 1890, in the records of Indiana County.

4. Deed Book 1003, page 380 from Annie Hartman, et al to the Pennsylvania Railroad Company, recorded 23 October 1937, in the records of Westmoreland County.

TRACT: 201E

UMTRA Project

Thereafter, the tracks of the railroad were relocated along with the channel of the Conemaugh River to occupy lands to the south. The said lands occupied by the former roadbed of the railroad and river channel were excepted and reserved in the Deed of the Trustees of the property of the Penn Central Transportation Company to the Consolidated Rail Corporation, dated 30 March 1976 and recorded in Indiana County in Deed Book 751, page 408, the same being depicted on certain railroad valuation maps recorded and made a part of said deed. The same land is a part of the land subsequently described in the first parcel of a deed from the Penn Central Corporation to George Wm. Burrows, and Wilma Gene Burrows, his wife, dated 30 April 1980 and recorded 2 June 1980 in the Office of the Recorder of Deeds of Indiana County, Pennsylvania, in Deed Book Volume 799, page 95.

TRACT: 201

OWNER: George Wm. Burrows, et ux

ACRES: 69.12

UMTRA Project

Department of Energy

Burrell Township, Pennsylvania

Fee Tract

LEGAL DESCRIPTION

TRACT NO. 201

A certain tract of land situated in the Township of Burrell, County of Indiana and Commonwealth of Pennsylvania, on the Conemaugh River, between Blairsville and Strangford. Said Tract is sometimes called the Strangford Dump and is more particularly described as follows:

Beginning at a point 510 feet, more or less, westerly of Milepost 7 and 110 feet left of the monumented centerline of the Consolidated Rail Corporation railroad; thence, with a curve to the right having a radius of 2761.43 feet,

Easterly 1135.02 feet to a point 110 feet left of said centerline; thence,

North $00^{\circ} 45' 18''$ East 30.00 feet to a point 80 feet left of said centerline; thence, with a curve to the right having a radius of 2791.43 feet,

Easterly 1221.24 feet to a point of 80 feet left of said centerline; thence,

South $64^{\circ} 11' 00''$ East 1300 feet to a point 80 feet left of said centerline; thence,

Southwesterly approximately 690.00 feet to the center of the Conemaugh River, a point in the line between Westmorland County and Indiana County; thence, downstream with said county line and the meanders of said river,

Westerly approximately 3070.00 feet; thence, leaving said county line and river.

Northerly approximately 290.00 feet to the point of beginning, containing 69.12 acres, more or less, including all of the area of muds, flats, and land under the waters of the Conemaugh River in which all right, title, and interest extends or should extend by law or custom together with all riparian rights appertaining thereto.

It is the intent of the above description to include the same land as the first tract described in a deed from Paul Interoligator, et ux to the Pennsylvania Railroad Company, dated 10 September 1943 and recorded in the records of Indiana County in Deed Book 329, page 68. The same was subsequently conveyed as the second parcel in a deed from the Penn Central Corporation to George Wm. Burrows and Wilma Gene Burrows, his wife, dated 30 April 1980 and recorded 2 June 1980 in the records of Indiana County, Pennsylvania in Deed Book 799, page 95.

FIGURE A.1
AREA BOUNDARIES
BURRELL SITE, PENNSYLVANIA

APPENDIX B
SITE INSPECTION PHOTO LOG

Site Inspection Photo Log

Roll Number: _____ **Film Type:** _____ **Number of Exposures:** _____

[illegible]

[illegible]

Signature

Page ____ of ____

[illegible]

[illegible]

APPENDIX C
SITE INSPECTION CHECKLIST

Site Inspection Checklist for the Burrell, Pennsylvania, Vicinity Property Uranium Mill Tailings Disposal Site

Date of Last Inspection: _____

Reason for Last Inspection: _____

Responsible Agency*: _____

Address: _____

Responsible Agency Official: _____

Inspection Start Date and Time: _____

Weather Conditions at Site: _____

Inspection Completion Date and Time: _____

Chief Inspector: _____

Name

Title

Organization

Assistant Inspector(s): _____

Name

Title

Organization

Name

Title

Organization

A. General Instructions

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Inspectors are to provide an up-to-date resume or vitae for inclusion in the inspection report.
3. Any checklist line item marked by an "*" that is checked by an inspector must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced

*Responsibility for site inspections assigned by DOE UMTRA Project Office, Albuquerque, to DOE Grand Junction Projects Office, November 6, 1990.

appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site atlas overlays.

4. The site inspection is a walking inspection of the entire site, including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist. Every monument, site marker, sign, monitoring well, and erosion control marker will be inspected.
5. A set of color print 35-mm photographs is required. For this site, the standard set consists of _____ photographs. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photo log entry will be made for each photograph taken.
6. References to applicable sections of *Surveillance and Maintenance Plan* (SMP), or similar document, are shown throughout the checklist in brackets.
7. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified; the field notes must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.

B. Preparation (to be completed prior to site visit)

Yes No

1. License (includes site *Surveillance and Maintenance Plan*) reviewed.
2. Site as-built plans reviewed and base map with copies of the following site atlas overlays obtained:
 - a. Adjacent off-site features and land use; fences, gates, and signs; access roads and paths.
 - b. Survey monuments, boundary markers, site markers, aerial photo ground controls, ground photo locations.
 - c. Monitoring wells, site drainage, diversion channels.
 - d. Planned inspection transects and vegetation cover.
 - e. Others.

These overlays will be used to identify site features and record, as appropriate, field data.

3. Previous inspection reports reviewed.
 - a. Were anomalies or trends in modifying processes detected on previous inspections?
 - b. Was a Phase II inspection conducted?
 - c. Was custodial maintenance performed?
 - d. Was contingency repair work done as a result of the Phase II inspection?

Yes No

4. Site custodial maintenance and contingency repair records reviewed.
 - a. Has site contingency repair resulted in a change from as-built conditions?
 - b. Are reviewed as-builts available that reflect contingency repair changes?
5. If required, adjacent property entry approval obtained (attach signed access agreement).
6. Aerial photos, if taken since last inspection, reviewed. For each set, enter date taken, scale, and if interpreted.

<u>Set</u>	<u>Date</u>	<u>Scale</u>	<u>Yes</u>	<u>No</u>
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____

7. Were any of the following suggested by examination of aerial photographs? (If yes, give photo set date and indicate if item noted by interpreter or inspector.):
 - a. Intrusion by man?
 - b. Intrusion by animals?
 - c. Channelized erosion on slopes?
 - d. Change in area drainage?
 - e. Landslides?
 - f. Creep on slopes?
 - g. Obstruction of diversion channels?
 - h. Bank erosion of diversion channels?
 - i. Seepage?
 - j. Cracking?
 - k. Change in vegetative cover?
 - l. Displacement of fences, site markers, boundary markers, or monuments?
 - m. Change in adjacent land use?
 - n. Evidence of tailings exposure or transport?
8. From as-builts, or subsequent inspection reports, note distance and azimuth from designated site locations, such as a monument, to adjacent off-site features that could eventually affect integrity of site.

	<u>Off-Site Feature</u>	<u>Site Monument No.</u>	<u>Distance</u>	<u>Azimuth</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

9. Assemble and check out the following equipment as needed to conduct inspections:

- a. Cameras, film, and miscellaneous support equipment.
- b. Binoculars.
- c. Tape measure.
- d. Optical ranging device.
- e. Brunton compass.
- f. Photo scale stick.
- g. Erasable board.
- h. Plant press, plastic bags for vegetation.
- i. Keys to locks.
- j. Bolt cutters.
- k. Hand lens.
- l. Clipboard.
- m. Others.

C. Site Inspection

Yes No

1. Adjacent off-site features (within 0.25 mi of site boundary)
 - a. Have there been any changes in use of adjacent areas? (grazing, construction, agriculture)
 - b. Are there any new roads or trails?
 - c. Has there been a change in the position of nearby stream channels?
 - d. Has there been headward erosion of nearby gullies?
 - e. Are there new drainage channels?
 - f. Others?
2. Access roads and paths, fences, gates, and signs. (Section ____)
 - a. Is there a break in the fence?
 - b. Have any posts been damaged or their anchoring weakened?

Yes No

- c. Is there evidence of erosion or digging beneath the fence?
 - d. Does the gate show evidence of tampering or damage?
 - e. Is there any evidence of human intrusion?
 - f. Is there any evidence of large animal intrusion?
 - g. Have any signs been damaged or removed?
(Number of signs replaced: ____)
 - h. Are access roads and paths passable?
 - i. Others?
3. Monuments and other permanent features. (Section ____)
- a. Have the survey or boundary monuments been defaced or disturbed?
 - b. Have the site markers been disturbed by man or natural processes?
 - c. Do natural processes threaten the integrity of any monument or site marker?
 - d. Have aerial photo ground controls been disturbed?
 - e. Others?
4. Crest (Section ____)
- a. Is there evidence of uneven settling? (depression, scarps)
 - b. Is there cracking?
 - c. Has the outer cover layer been breached?
 - d. Is there evidence of erosion?
(1) By water? (rills, rivulets)
(2) By wind? (pedestal rocks, ripple marks)
 - e. Is the vegetation cover as described in the as-builts?
 - f. Is there evidence of animals burrowing?
 - g. Is there evidence of riprap or gravel deterioration?
 - h. Others?
5. Slopes (Section ____)
- a. Is there evidence of gradual downslope movement (creep)?
(terraces, deflection of plants)
 - b. Is there cracking?
 - c. Can depressions or bulges on the slope be seen?
 - d. Has the outer cover layer been breached?
 - e. Is there evidence of erosion?
(1) By water?
(2) By wind?

Yes No

- f. Has water runoff become channelized? (rivulets, gullies)
 - g. Is there evidence of seepage? (moisture, color, vegetation)
 - h. Has the vegetation cover changed significantly since the last inspection?
 - i. Is there evidence of animal burrowing?
 - j. Is there evidence of deterioration of riprap or gravel cover?
 - k. Others?
6. Periphery (within site boundaries) (Section ____)
- a. Is there evidence of seepage such as wet areas or localized change of vegetation?
 - b. Is there evidence of sediment transport from the tailings pile by water or wind?
 - c. Is the vegetation cover as described in the as-builts?
 - d. Is the drainage as described in the as-builts?
 - e. Others? Burrows animals; erosion.
7. Diversion channels (Section ____)
- a. Is there evidence of bank erosion?
 - b. Has the integrity of riprap structures been disturbed by man or natural processes?
 - c. Is there evidence of channel erosion?
 - d. Is there evidence of sedimentation in the channel?
 - e. Is the vegetation pattern in the channels consistent with that shown in the as-builts?
 - f. Is the channel obstructed in any way?
 - g. Is there any evidence that the diversion channels are not performing their function?
 - h. Others?
8. Photography (Section ____)
- a. Have all photos required by the site atlas photo overlay been taken?
 - b. Has a photo log sheet been prepared for each roll of film exposed?
 - c. Number of rolls of film exposed: ____
 - d. Others?
9. Monitoring wells (Section ____)
- a. Have any monitoring wells been disturbed by man or natural processes?

Yes No

- b. Does any natural process threaten the integrity of any monitoring well?
- c. Are all monitoring wells' label plates intact and legible?
- d. Are all monitoring wells capped and locked?
- e. Others?

D. Field Conclusions

- 1. Is there an imminent hazard to the integrity of the tailings pile?
(Immediate report required)
Person _____
Agency to whom report made: _____
- 2. Are more frequent Phase I inspections required?
- 3. Are existing contingency repair actions satisfactory?
- 4. Is a Phase II inspection required?
- 5. Is a contingency report or custodial maintenance required?
- 6. Rationale for field conclusions are documented as text of this report.

E. Certification

I have conducted a prelicensing inspection of the Burrell uranium mill tailings site in accordance with the procedures of the license (includes the site surveillance and maintenance plan) as recorded on this checklist, attached sheets, field notes, photo log sheets, and photos.

Chief Inspector's Signature

Printed Name

Title

Date

APPENDIX D
VEGETATION CONTROL

D.1 BACKGROUND

Observations at the Burrell disposal cell in 1990 through 1992 revealed that numerous species of plants were growing on this cell (DOE, 1990; 1992); 58 species of plants were observed in 1992. A vegetation control program was instituted at this site during the summer of 1992 to eliminate plant species of concern from the cell.

The control of vegetation at the Burrell disposal site is required to ensure the continued integrity of the cell. After several years of growth, the roots of many plants have penetrated into the radon barrier. It is anticipated that if plant growth had been left unchecked on this cell, roots would have grown through the radon barrier and into the tailings in as few as 2 more years. However, the plant control program in 1992 removed most of the deep-rooted plants from this cell, thus preventing root penetration of the tailings.

D.2 VEGETATION CONTROL PROGRAM

The objective of the vegetation control program at the Burrell disposal cell is to prevent the reestablishment of deep-rooted plants and to ensure the continued integrity of the cell. The rooting and reproductive patterns of plants growing on the disposal cell dictate the vegetation control measures required.

The results of the 1992 vegetation control program must be considered in the early stages of the long-term vegetation control program for the Burrell disposal cell. The 1992 control program was designed to eliminate plant species of concern noted below. Since no vegetation control program eliminates all the vegetation, it will be necessary to repeat the control measures in 1993 for those plants that survived 1992 control measures. After the 1993 vegetation control program, the long-term control program will be initiated. This long-term control program is based on the data summarized below. The following is recommended:

- Trees and shrubs: Complete elimination of these species every 3 years.
- Japanese knotweed: Complete elimination every 2 years.
- Other herbaceous species: Complete elimination every 3 years in conjunction with the tree and shrub elimination program.

A local contractor with the ability to perform the above vegetation control recommendations will be hired. Trees and most herbaceous plant species can be eliminated by standard vegetation control practices. The Japanese knotweed is difficult to eradicate because it spreads via underground rhizomes. The most effective way to control this species is to spray the foliage in mid- to late-August when the plant is beginning to enter winter dormancy. This will ensure that more of the herbicide is transported to the underground biomass and will result in more effective control.

D.2.1 Tree and shrub growth

Trees are expected to colonize the disposal cell at their current rate. Observations of tree species rooting patterns indicate that root penetration of the radon barrier by these species does not occur for at least 3 years after plant establishment.

D.2.2 Japanese knotweed growth

The rate at which the Japanese knotweed colonizes the disposal cell is expected to decrease over time with the application of the control measures. However, this species can produce significant aboveground and belowground biomass in as little as 2 years; therefore, more frequent initial application of control measures is recommended.

The Japanese knotweed reproduces principally by underground rhizomes; reproduction by seed is relatively infrequent. Due to this reproduction strategy, it is anticipated that once the established knotweeds are eliminated from the disposal cell, the reestablishment of this species will be slow. As the Japanese knotweed are eliminated, plant control of this species should only be required every 3 years.

D.2.3 Growth of other plants

Other herbaceous plant species colonize and thrive on the disposal cell. Excavations of these various herbaceous species indicate that they have not penetrated the radon barrier to any significant degree. Elimination every 3 years should be sufficient to control this vegetation.

REFERENCES

- DOE (U.S. Department of Energy), 1992. "Vegetation Growth Patterns on Six Rock-Covered UMTRA Project Disposal Cells," UMTRA-DOE/AL-400677.0000, prepared by the U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico.
- DOE (U.S. Department of Energy), 1990. "An Assessment of Plant Biointrusion at the Uranium Mill Tailings Remedial Action Project Rock-Covered Disposal Cells," UMTRA-DOE/AL-400662.0000, prepared by the U.S. Department of Energy, UMTRA Project Office, Albuquerque Operations Office, Albuquerque, New Mexico.

APPENDIX E
AGENCY NOTIFICATION AGREEMENTS

AGENCY NOTIFICATION AGREEMENTS

Concurrence letters from the remaining agencies shall be incorporated into this final LTSP once they are received.

Department of Energy
Albuquerque Field Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400

MAR 16 1993

Mr. Jim Weyman
National Weather Service Information and
Records
192 Shafer Rd.
Coroapolis, PA 15108

Dear Mr. Weyman:

The U.S. Department of Energy (DOE) Uranium Mill Tailings Remedial Action (UMTRA) Project Office is requesting notification in the event of issuance of flash flood, tornado warnings, or hurricane alert in Indiana County, Pennsylvania. We would appreciate notification to the DOE Grand Junction Projects Office's 24-hour phone line at (303) 248-6070 within eight hours of issuance of a warning or episode of warnings.

The purpose of this warning is to assist the DOE in surveying and maintaining the integrity of its radioactive waste disposal site located one mile east of the Borough of Blairsville, Indiana County, in southwestern Pennsylvania. The Burrell vicinity property site is bordered on the south by the Conemaugh River and to the north by the Conrail railroad tracks. The enclosed map provides directions to the site if you are not familiar with its location.

If the notification request discussed above is agreeable to you, please sign and return the enclosed reply letter for our records as soon as possible.

Should you have any questions, please contact Steve Hamp of my staff at (505) 845-5640. Thank you for your attention in this matter.

Sincerely,

Albert R. Chernoff
Project Manager
Uranium Mill Tailings Remedial Action
Project Office

2 Enclosures

cc w/o enclosures:
J. Virgona, GJPO
C. Jones, GJPO
S. Hamp, UMTRA
F. Bosiljevac, UMTRA
E. Artiglia, TAC

Department of Energy
Albuquerque Field Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400
MAR 16 1993

Mr. Bruce Presgrave
U.S. Geological Survey
National Earthquake Information Center
P.O. Box 25046, Mail Stop 967
Denver Federal Center
Denver, CO 80225

Dear Mr. Presgrave:

The U.S. Department of Energy (DOE) Uranium Mill Tailings Remedial Action (UMTRA) Project Office is requesting notification if a seismic event is recorded in Indiana County, Pennsylvania. The purpose of this request is to assist the DOE in surveying and maintaining the integrity of its radioactive waste disposal site located approximately one mile east of the Borough of Blairsville, (Latitude N40°.3'/Longitude W79°.3') Indiana County, in southwestern Pennsylvania.

We would appreciate notification to the DOE Grand Junction Projects Office's 24-hour phone line at (303) 248-6070 if a seismic event(s) occurs that fits any of the following descriptions:

- Any earthquake of magnitude 3.0 or greater, within 0.3 degrees (about 20 miles) of the disposal site, or
- Any earthquake of magnitude 5.0 or greater, within 1.0 degrees (about 70 miles) of the disposal site.

If the notification request discussed above is agreeable to you, please sign and return the enclosed reply letter for our records as soon as possible.

Should you have any questions, please contact Steve Hamp of my staff at (505) 845-5640. Thank you for your attention in this matter.

Sincerely,

for Albert R. Chernoff
Project Manager
Uranium Mill Tailings Remedial Action
Project Office

2 Enclosures

cc w/o enclosures:
J. Virgona, GJPO
C. Jones, GJPO
S. Hamp, UMTRA
F. Bosiljevac, UMTRA
E. Artiglia, TAC

Department of Energy
Albuquerque Field Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400

MAR 16 1993

Lt. Tripp
Indiana, Pennsylvania State Police
401 Airport Center
Indiana, PA 15701

Dear Lt. Tripp:

The U.S. Department of Energy (DOE) Uranium Mill Tailings Remedial Action (UMTRA) Project Office is requesting notification of any unusual activities or events in or around the uranium mill tailings disposal cell located approximately one mile east of the Borough of Blairsville, Indiana County, in southwestern Pennsylvania. The purpose of the notification request is to assist the DOE in surveying and maintaining the integrity of its disposal cell and to ensure public safety.

If, during the course of routine activities, anything out of the ordinary is observed by your staff or reported to your office, we would appreciate immediate notification to the DOE Grand Junction Projects Office's 24-hour phone line at (303) 248-6070. The enclosed map provides directions to the site if you are not familiar with its location.

If the notification request discussed above is agreeable to you, please sign and return the enclosed reply letter for our records as soon as possible.

Should you have any questions, please contact Steve Hamp of my staff at (505) 845-5640. Thank you for your attention in this matter.

Sincerely,

for Albert R. Chernoff
Project Manager
Uranium Mill Tailings Remedial Action
Project Office

2 Enclosures

cc w/o enclosures:
J. Virgona, GJPO
C. Jones, GJPO
F. Bosiljevac, UMTRA
S. Hamp, UMTRA
E. Artiglia, TAC

MIS/UMT/0393-0031

Albert R. Chernoff
UMTRA Project Office
U.S. Department of Energy
Uranium Mill Tailings Remedial Action
Project Office
5301 Central Ave., N.E., Suite 1720
Albuquerque, NM 87108

Attention: Steve Hamp

Dear Mr. Chernoff:

This letter is to concur with the U.S. Department of Energy (DOE) request for notification as set forth in the DOE's letter of MAR 16 1993, 1993. As requested in your letter, this office will contact the DOE's Grand Junction Projects Office at (303) 248-6070 if any unusual event or anomaly is observed or reported at the Burrell Vicinity Property disposal site.

Sincerely,

James R. Trupp
Name

LIEUTENANT - STATION Commander.
Title

Indiana, Pennsylvania State Police
401 Airport Center
Indiana, PA 15701

cc:

J. Virgona, GJPO
C. Jones, GJPO
F. Bosiljevac, UMTRA
S. Hamp, UMTRA
E. Artiglia, TAC