



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

JUN 07 1996

Ms. Janet Lambert, Site Manager
Uranium Recovery Branch
Office of Nuclear Material Safety
and Safeguards
MS T7J9
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20852-2738

Dear Ms. Lambert:

Enclosed for your information is one copy of Project Interface Document (PID) Number 06-S-47. This PID modifies the disposal cell configuration and location of gullies at the toe ditch. Modification to the disposal cell configuration was required due to the decrease in the amount of contaminated material placed in the cell. With this modification the cell design is now considered to be more conservative since the grade on the topslope was reduced while keeping the rock size the same. Since this PID does not affect the intent of the design it is considered to be a Class II modification. Therefore it does not require approval by the Colorado Department of Public Health and the Environment and the Nuclear Regulatory Commission.

Should you have any questions, please call me at (505) 845-5668.

Sincerely,

Sharon J. Arp
Site Manager
Uranium Mill Tailings Remedial Action Team
Environmental Restoration Division

Enclosure

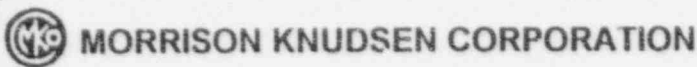
9607230316 960607
PDR WASTE
WM-62 PDR

cc w/o enclosure:
S. Hamp, ERD
E. Artiglia, TAC
S. Cox, TAC
R. Hindman, MK-F



Printed on recycled paper

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UMTRA PROJECT
PROJECT INTERFACE DOCUMENT (PID)

Site: Rifle, Colorado	Date: February 22, 1996	PID No. 06-S-47	Site No. 06	Vic. Prop. No.
Originator and Location G. Cherrington, San Francisco	Phone: 415/442-7690	Organization: MKES	Answer By:	References: Subcontract: Subcontract No:
Subject: Revise Top Slope of Disposal Cell and Riprap Erosion Protection for Gullies at Toe Ditch				

Description of Problem and Recommended Solution
☐ Clarification ☒ Change

PROBLEM NO. 1:

The total volume of contaminated material deposited in the Estes Gulch disposal cell is approximately 3.8 million cubic yards, which is less than the current cell capacity of 4.1 million cubic yards. Additionally, the disposal cell capacity has increased due to excavating to a greater depth than anticipated to reach bedrock foundation. Because of the reduction in the total volume of contaminated material and the increase in the cell capacity, the disposal cell configuration at Estes Gulch needs to be changed.

PROBLEM NO. 2:

The three gullies immediately to the south of the permanent toe ditch were filled in during the construction of the temporary retention basin. The current design requires placement of Type B riprap protection in these three gullies. As excavation of the filled-in area to the original grade is not practicable, a redesign of the slope protection in this area is necessary.

(Continued on the following sheet)

Originator G. Cherrington Feb 22/96
signature Date

Disposition <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Approved as Noted	RAC Site Manager <u>R.C. Lindgren</u> <u>2-26-96</u>
Criteria Change? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, DOE approval required)	RAC Project Control <u>Colleen Wilder</u> <u>W.W. Johnson</u> <u>2/26/96</u>
Class II	RAC Engineering/Design <u>J. A. Smith</u> <u>02/22/96</u>
<u>N/A</u>	RAC Construction Engineer <u>C. J. Jensen</u> <u>2/26/96</u>
DOE Site Manager Approval _____ Date _____	Review for Quality Requirement <u>[Signature]</u> <u>02/26/96</u> Signature Date

CONTROLLED
WORK COPY

Distribution	Name	Location	Cost/Time Est.
RAC Site Mgr.	<u>K. W. Hec</u>		<input type="checkbox"/> Attached
DOE Proj. Engr.	<u>J. H. P.</u>		<input type="checkbox"/> Not Required
TAC Site Mgr.	<u>J. Cox</u>		<input type="checkbox"/> DOE Approval Req.
RAC Site Qual. Engr.	<u>[Signature]</u>		
RAC HS&E Mgr.	<u>[Signature]</u>		
RAC Const. Engr. Mgr.	<u>[Signature]</u>		
RAC Qual. Mgr.	<u>[Signature]</u>		
Other	<u>[Signature]</u>		

)

SOLUTION No. 1 :

To adjust the disposal cell configuration for the lesser volume of contaminated material, it is proposed to flatten a portion of the 6.5 percent top slope of the disposal cell, as currently designed, to a 5.5 percent slope. This will reduce disposal cell capacity from 4.1 million cubic yards, as originally designed, to the final required capacity of 3.8 million cubic yards. The as-built bedrock surface profile will be incorporated in the Subcontract Drawings showing the revised configuration of the disposal cell.

SOLUTION NO. 2:

Since the three gullies abutting the permanent toe ditch have been filled in for a distance of about 600 ft to the south during construction of the temporary retention basin, it is proposed that gully erosion protection be provided at this new gully location rather than at the original location shown in Subcontract Drawing No. RFL-DS-10-0722 (Rev.2). The proposed method of gully erosion protection is as follows:

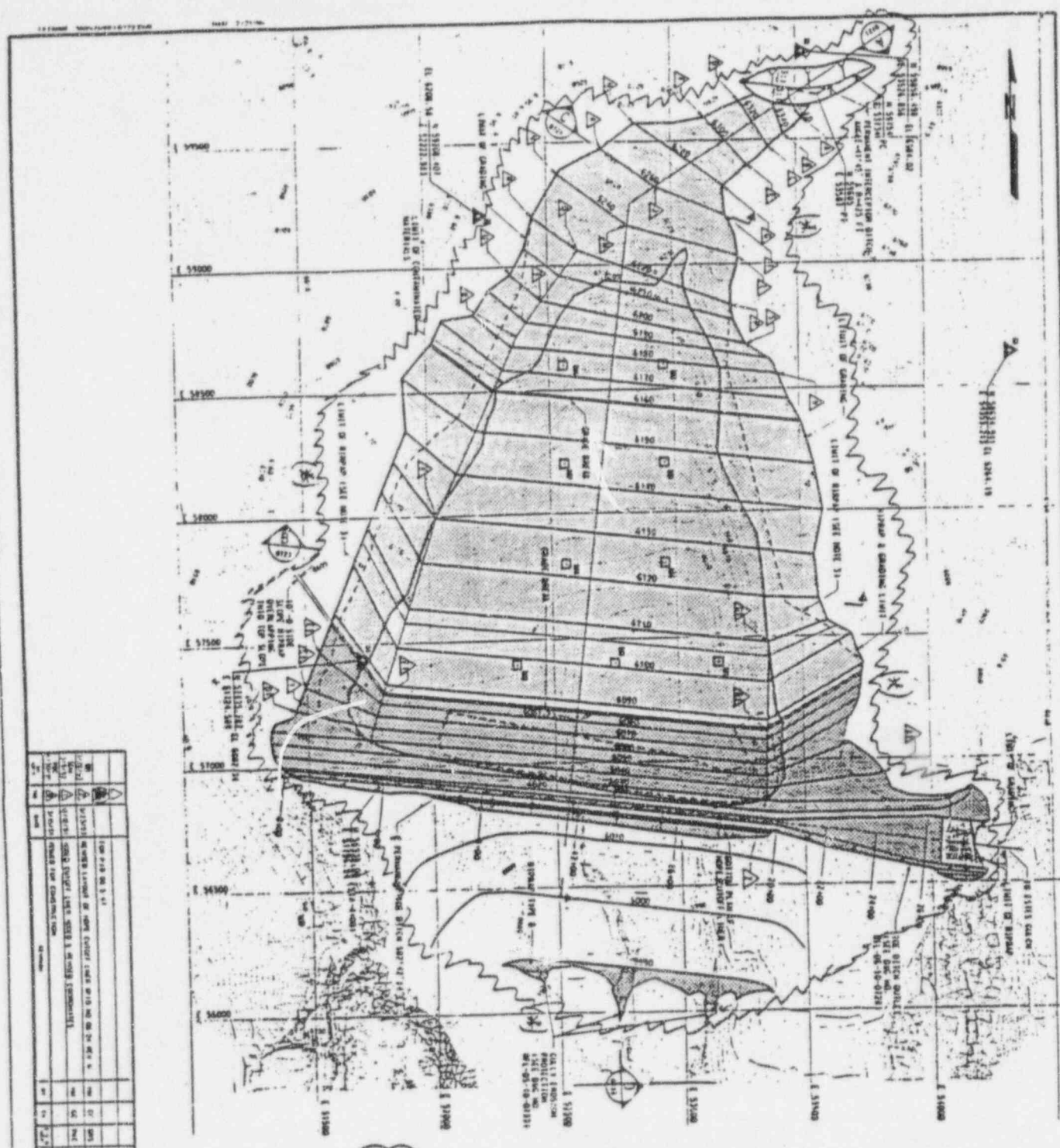
- (i) The surface of the filled-in gully area will be regraded to an approximate 4 percent slope to promote sheet flow. The regraded area will be seeded as required by Specification Section 02935.
- (ii) Provide a transition slope of 12.5 percent between the regraded surface and the existing ground surface, including the three gullies, which will facilitate sheet flow. This slope will also be extended into the three gullies. A 24-inch thick, Type B riprap layer will be placed over this slope for erosion protection.
- (iii) Type C riprap will be placed to a minimum thickness of 30 inches at the downstream end of Type B riprap in the three gullies.

The proposed redesign for Solution NO. 2 will be an enhancement of the current design due to:

- The gully erosion protection area abutting the permanent toe ditch has been moved approximately 600 ft. to the south. Any gully at this location would have to erode further (than the current design) to impact the disposal cell.
- The increased thickness of Type B riprap layer (from 12-inch in the current design to the proposed 24-inch design thickness) and the placement of additional Type C riprap at the downstream end of the Type B riprap layer will provide for additional energy dissipation and velocity reduction and thus further reduce erosion potential during runoff events.

The following Subcontract Drawings will be revised in accordance with the attached markups to implement the design changes as proposed above for Solutions No. 1 and No. 2.

RFL-DS-10-0715 (Rev. 2) - Site Plan - Tailings Embankment
RFL-DS-10-0722 (Rev. 2) - Final Site Grading and Drainage Plan
RFL-DS-10-0723 (Rev. 3) - Tailings Embankment Sections
RFL-DS-10-0733 (Rev. 1) - Gully Erosion Protection



Symbol	Description
△	Spot Elevation
▽	Spot Elevation
□	Spot Elevation
○	Spot Elevation
×	Spot Elevation
+	Spot Elevation
•	Spot Elevation
△	Spot Elevation
▽	Spot Elevation
□	Spot Elevation
○	Spot Elevation
×	Spot Elevation
+	Spot Elevation
•	Spot Elevation

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE, NEW MEXICO

FINAL SITE GRADING AND DRAINAGE PLAN

PROJECT: DE AC04-03A.18796
 DATE: 05-10-0122



LEGEND

△	EXISTING SITE ELEVATION
▽	EXISTING SITE ELEVATION
□	EXISTING SITE ELEVATION
○	EXISTING SITE ELEVATION
×	EXISTING SITE ELEVATION
+	EXISTING SITE ELEVATION
•	EXISTING SITE ELEVATION

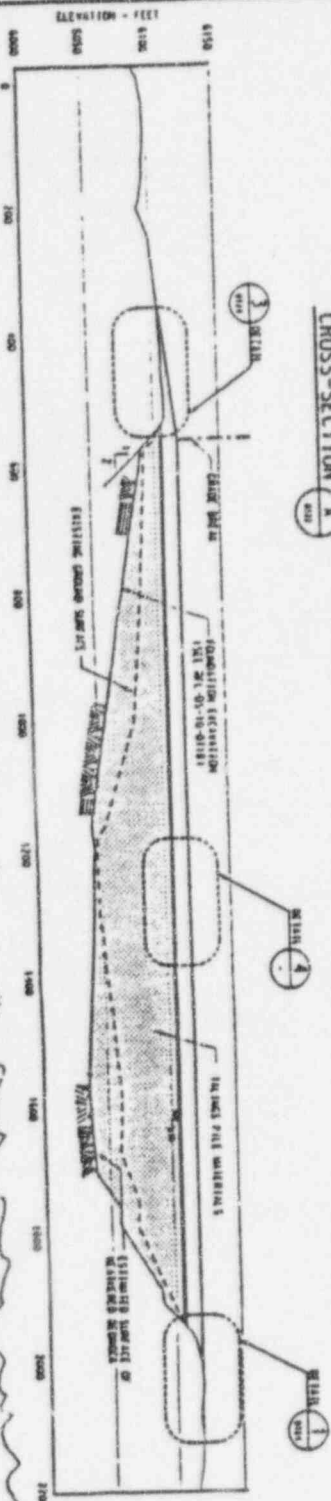
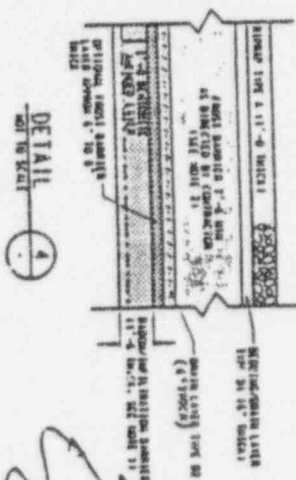
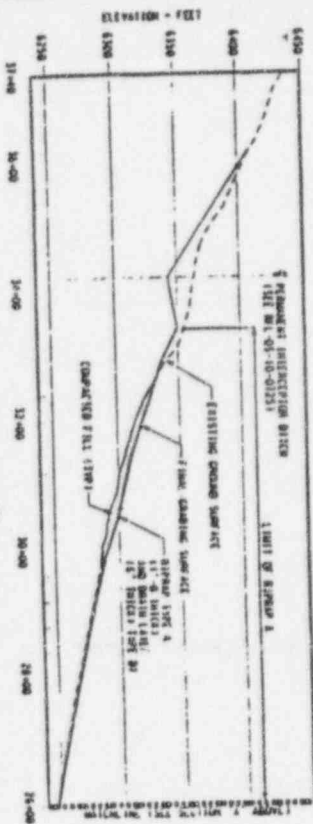
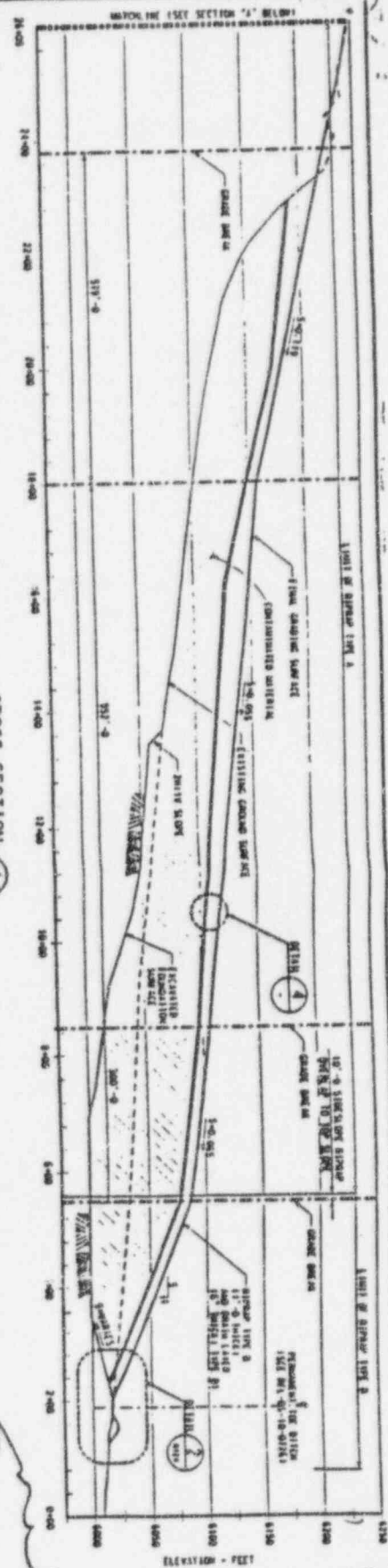
COORDINATE POINTS

POINT	NORTH	EAST
1	51000	51000
2	51000	51000
3	51000	51000
4	51000	51000
5	51000	51000
6	51000	51000
7	51000	51000
8	51000	51000
9	51000	51000
10	51000	51000

MONUMENT POINTS

POINT	NORTH	EAST
1	51000	51000
2	51000	51000
3	51000	51000
4	51000	51000
5	51000	51000
6	51000	51000
7	51000	51000
8	51000	51000
9	51000	51000
10	51000	51000

- NOTES**
1. DATE FOR THE GRADING TO BE CONSIDERED IS 05-10-0122.
 2. COORDINATE POINTS AND MONUMENT POINTS ARE NOT TO BE CONSIDERED IN THE FINAL PLAN.
 3. EXISTING DRAINAGE TO BE MAINTAINED OR FULLY RECONSTRUCTED.
- REMARKS**
- 05-10-0122: RECONSTRUCTED SITE GRADING AND CONSTRUCTION FOR THE SITE.
- 05-10-0122: RECONSTRUCTED SITE GRADING AND CONSTRUCTION FOR THE SITE.
- 05-10-0122: RECONSTRUCTED SITE GRADING AND CONSTRUCTION FOR THE SITE.
- 05-10-0122: RECONSTRUCTED SITE GRADING AND CONSTRUCTION FOR THE SITE.



Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

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