

PERMIT TRACKING FORM

- Permit Amendment(INS)
 Exploration Permit(INS)
 N.O.V. (INS)
 D.O.
 Permit Transfer
 Incidental Boundary Change
 Permit Midterm (MT)
 Permit Renewal (PR)
 New Permit
 Significant Revision (SR)
 Bond Release (BR)

DATE RECEIVED <u>7-14-97</u>	By: <u>tat</u> (Initial)	PERMIT NUMBER	ACT/015/019
Title of Proposal: <u>Soil Salvaging</u>		PERMIT CHANGE #	<u>97D</u>
Description:		PERMITTEE	PACIFICORP
# Copies Required <u>7</u>	# Copies Received <u>7</u>	MINE NAME	COTTONWOOD/WILBERG

PERMIT CHANGE APPLICATION SENT TO SLC DATE: _____ LETTER TO PERMITTEE: _____

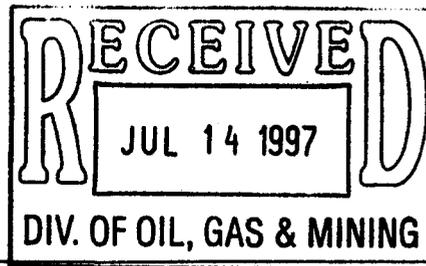
<input type="checkbox"/> 15 DAY INITIAL RESPONSE TO PERMIT CHANGE APPLICATION OR INITIAL COMPLETENESS REVIEW	DATE DUE	DATE DONE	LETTER TO PERMITTEE:
<input type="checkbox"/> Notice of Affidavit of Publication. (If change is a Significant Revision, New Permit or Permit Transfer)	DATE DUE:	DATE DONE	PUBLIC COMMENT RECEIVED:

PRICE REVIEW TRACKING	REVIEW		SLC REVIEW TRACKING	REVIEW	
	DUE	DONE		DUE	DONE
<input type="checkbox"/> Lead <input type="checkbox"/> Generalist			<input type="checkbox"/> Lead <u>Bob</u>		
<input type="checkbox"/> Administrative			<input type="checkbox"/> Administrative		
<input type="checkbox"/> Land Use/AQ			<input type="checkbox"/> Land Use/AQ		
<input type="checkbox"/> Biology			<input type="checkbox"/> Biology		
<input type="checkbox"/> Engineering			<input type="checkbox"/> Engineering		
<input type="checkbox"/> Geology			<input type="checkbox"/> Geology		
<input type="checkbox"/> Soils			<input type="checkbox"/> Soils <u>Bob</u>	<u>7/29</u>	
<input type="checkbox"/> Hydrology			<input type="checkbox"/> Hydrology		

TA Review Due	Date:	Permittee Response Due	Date:	DIVISION DECISION LETTER
		<input type="checkbox"/> Stipulation <input type="checkbox"/> Condition <input type="checkbox"/> No Requirements		<input type="checkbox"/> APPROVE <input type="checkbox"/> DENY
TA Review Done	Date:	Response Received	Date:	Date:

COORDINATED REVIEWS	PHONE CONTACT	SENT	DUE	RECEIVED	ADDITIONAL TRACKING	Date:
<input type="checkbox"/> OSMRE (C)					PUBLIC HEARING	
<input type="checkbox"/> US Forest Service (2C)					LETTER FROM COMPLIANCE SUPER.	
<input type="checkbox"/> BLM (C)					AVS COMPLETED	
<input type="checkbox"/> US FWS (L, NA)					APPROVAL EFFECTIVE DATE	<u>8/10/97</u>
<input type="checkbox"/> US NPS					APPROVED COPY TO FILE	
<input type="checkbox"/> UT SHPO(L, NA)					APPROVED COPY TO PERMITTEE	
<input type="checkbox"/> UT DEQ (L)					APPROVED COPY TO PFO/SLC	
<input type="checkbox"/> UT Water Rights (L)					APPROVED COPY TO AGENCIES	
<input type="checkbox"/> UT Wildlife Resources(L)					CHIA MODIFIED	
<input type="checkbox"/> UT SITLA					UPDATE MASTER TA DONE/NEEDED	

PRICE FIELD OFFICE COMMENTS:	SLC OFFICE COMMENTS:
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July 9, 1997

National Resource Land

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Attention: Robert Davidson

**Re: Amendment to Cottonwood Mine Waste Rock Site, Soil Salvaging,
PacifiCorp, Cottonwood Mine, ACT/015/019, Emery County, Utah.**

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, herewith submit an amendment to the New Waste Rock Site. The amendment constitutes soil salvaging along the western and northern slopes of the Waste Rock Site.

Introduction

The Cottonwood Waste Rock Refuse Site was constructed during 1990 and has been utilized for refuse storage since that time. The design, plans and construction of the refuse location called for topsoil and subsoil to be removed and stockpiled in the immediate vicinity. The western and northern slopes of the Waste Rock Site area remained intact without soil removal. As indicated in the MRP (Page 2-6, 2-7 of the Waste Rock Volume) when elevation of the refuse pile rises the material will be pushed towards and tie into the above mentioned slopes. At the same time, a required ditch line for drainage along the perimeter of the north and west slopes will be established. (Typical as shown on drawing CM-10816-WB, Plate 4-4 of the Waste Rock Volume). No provisions were called for to remove surface soil materials as the refuse was spread and tied into the existing slopes. Leveling of the refuse material into the slopes has occurred a number of times. Recently, during an onsite visit by the Division (Robert Davidson, Susan White) a determination was made that "Energy West" should be salvaging the slope materials and stockpiling such for future use.

Field Tests by the Division

Material tests conducted by the Division indicate that the above mentioned slopes should have soil salvaged to a depth of approximately 10" inches. This material was found acceptable for use as subsoil and therefore should be salvaged from this time forth. PacifiCorp is complying with this recommendation. See attached sheets from the Division for test results and directive to

Huntington Office:
(801) 687-9821
Fax (801) 687-2695
Purchasing Fax (801) 687-9092

Deer Creek Mine:
(801) 381-2317
Fax (801) 381-2285

Cottonwood Mine:
(801) 748-2319
Fax (801) 748-2380

provide an amendment to the permit.

Operations

The surface soil material will be salvaged during regular lift leveling operations that require the material to be placed beyond the existing ditch line and against the western or northern slopes. Salvaging of the soil material will be at a depth of approximately 10" inches. The width of material removed will be determined by the depth of the refuse to be leveled to the slope. The ditch line will be reconstructed in compliance with the permit requirements. Each time refuse is leveled to the slopes these parameters will be followed. The salvaged material will be utilized along the outslope of the containment berm if the berm is under construction. Otherwise, the material will be hauled to the subsoil pile and stockpiled for later use. A trackhoe will be used to remove the soil material from the slopes and place the material into 10 wheel dump trucks which will haul material to whichever site is applicable.

Large boulders encountered during material placement will be removed and either stored for rip-rap or placed in the refuse pile.

A new page designated as 2-10.3 of Chapter II, Operations section of the New Waste Rock Site Volume, will be required to incorporate language into the permit that provides for the soil material salvaging.

Revisions to the MRP

Drawing CM-10816-WB, Plate 4-4 of the Waste Rock Volume will be revised to depict the salvage area to be removed. (Typical insert) This is the ditch line typical.

Page 2-7 of the Waste Rock Volume has been revised. Text is highlighted.

Page 2-10.2 of the Waste Rock Volume has been revised. Text is highlighted.

Page 2-10.3 of the Waste Rock Volume is an added page to cover the language revision required for salvaging the material as described above.

To the best of our knowledge, all pages requiring revisions within the MRP or the Waste Rock Volume have been revised.

Reclamation Costs

No additional cost in this area would affect reclamation proceedings. Therefore, this item is not addressed.

If there are any questions or concerns related to this amendment please call or notify Richard Northrup at 687-4822 or Chuck Semborski at 687-4720, Energy West offices.

Sincerely,

Richard Northrup
Env. Eng.

A handwritten signature in cursive script that reads "Richard Northrup".

cc: Blake Webster
Carl Pollastro
Chuck Semborski
Barbara Adams (File)

APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/015/019
Title of Proposal: COTTONWOOD WASTE ROCK SITE SOIL SALVAGING						Mine: COTTONWOOD/ WILBERG
						Permittee: PACIFICORP

Description, include reason for application and timing required to implement: **INCLUDE WEST & NORTH SLOPES OF WRS, SALVAGING OF SURFACE SOIL DURING REFUSE PILE LEVELING.**

Instructions: If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

- | | | |
|---|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO # |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice/publication? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? Explain: |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?) |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 15. Does application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps, or calculations? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 21. Have reclamation costs for bonding been provided for? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Attach 7 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (B445-301-123)

Stephen J. Anthony, Env. Eng. 7-9-97
 Signed - Name - Position - Date

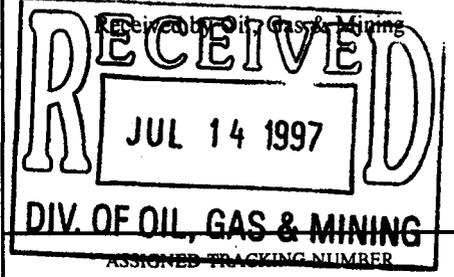
Subscribed and sworn to before me this 9th day of July, 1997

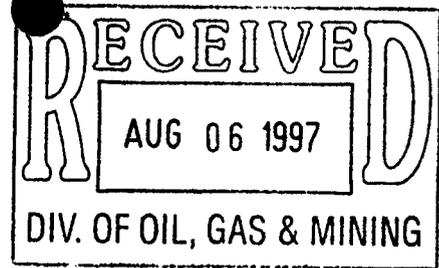
Barbara J. Adams
 Notary Public



NOTARY PUBLIC
BARBARA J. ADAMS
 15 North Main
 Huntington, Utah 84528
 My Commission Expires
 October 13, 2000
STATE OF UTAH

My Commission Expires: _____
 Attest: STATE OF _____
 COUNTY OF _____





August 4, 1997

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Attention: Robert Davidson

Re: Cottonwood Waste Rock Site Soil Salvaging

✓
ACT/015/019 #2

As requested by the Division, a revised copy of drawing CM-10816-WB has been attached. The drawing now includes a depiction of the location where soil will be salvaged from the slopes at the Cottonwood Waste Rock Site.

An approximate yardage of material that will be salvaged has also been calculated. It is expected that approximately 1300 cubic yards of material will be salvaged along the western and northern slopes of the Cottonwood Waste Rock Site.

If you have any questions please contact Amber Cox at 687-4822 or Chuck Semborski at 687-4720.

Sincerely,

Dennis Oakley
Environmental Engineer



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

TECHNICAL FIELD VISIT

Date : June 4, 1997
Mine: Cottonwood/Wilberg Mine
File Number: ACT/015/019
DOGM Staff: Robert Davidson
Other Attendees: Dick Northrup, Pacificorp

RAD

Purpose:

- Appraise the east facing hillside for topsoil salvage at the Cottonwood/Wilberg waste rock disposal site.

MRP Information:

- The soils are mapped as Lithic Ustic Torriorthents, 5-30% slopes with a Gardner saltbush community. Soils were originally characterized in the MRP as Pedon #4, which was actually a composite sample from 3 different locations. No Pedon description exists for #4 except for chemical and general characterization. The soil is a silty-clay loam having a 74 percent saturation

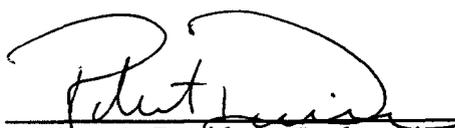
Field Observations:

- The toe of the east facing hillside slope is located immediately above and adjacent to the Cottonwood/Wilberg waste rock disposal site. Soils are derived from Mancos shale and therefore have a heavy Mancos influence. Vegetation on the southern portion of the slope is mixed with Gardner saltbush, grasses, and sagebrush. Vegetation in the mid portion of the slope is mainly Gardner saltbush with some grass and very little sagebrush.
- The soil surface is crusted and cracked with a friable and loose consistency to a depth of about 8 to 12 inches. At this depth, we encountered a hard clay layer with the soil having a very firm consistency. Soil moisture was present at about 4 to 6 inches.
- Two composite samples were taken using a hand held 18" sample probe. Approximately 20, 12" cores were taken for each sample while randomly probing across the midslope at high and low points. The samples were mixed and soil pastes were prepared and allowed to stand for about an hour before making pH and electrical conductivity measurements. 25 grams of soil were used to make the soil pastes and the paste was weighed afterwards to calculate percent saturation. The pH was measured directly in the paste while the EC was measured on the paste extract after filtering thru a Whatman #45 paper. The pH/EC meter was calibrated before making measurements using pH and EC standards.

Composite Sample	Paste Temp °C	pH	EC $\mu\text{s}/\text{cm}$	SP %
south slope	80	7.6	2120	37.0
mid slope	80	7.7	2910	38.4

Recommendations/Conclusions:

- Per DOGM's soil guidelines, the measured soil parameters for both samples are good for pH, and saturation %, and fair for EC.
- Discussion in the field with Dick Northrup focused on salvaging the soil to a 10 inch depth across the entire slope. The salvaged soil would be used as subsoil, thus adding increased depth to the now approved 18" subsoil depth. Salvage would be done in lifts as the waste rock pile ascends while live hauling the soil to the newly constructed soil berm.
- Pacificorp will provide an MRP amendment for salvaging the additional soil at the Cottonwood/Wilberg waste rock site.

Signature:  on June 12, 1997
Robert A. Davidson, Reclamation Specialist III (Soils)

cc: Daron Haddock
Joe Helfrich
Susan White
Bill Malencik
Dick Northrup
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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
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801-359-3940 (Fax)
801-538-7223 (TDD)

August 18, 1997

Dick Northrup
Energy West
P.O. Box 310
Huntington, Utah 84528

Re: Cottonwood Mine Waste Rock Site, Soil Salvaging, PacifiCorp, Cottonwood Mine,
ACT/015/019-97D, Folder #2, Emery County, Utah

Dear Mr. Northrup:

The referenced amendment is hereby approved effective August 18, 1997. The following items are included:

- Technical analysis and finding prepared by Robert Davidson, Senior Reclamation Specialist for the Division, and
- a stamped approved copy of you submittal for insertion into your mining and reclamation plan.

If you have any questions, please call.

Sincerely,

Joseph C. Helfrich
Permit Supervisor

tat
Enclosure

cc: Ranvir Singh, OSM
Richard Manus, BLM
Janette S. Kaiser, US Forest Service
Mark Page, Water Rights, w/o
Dave Ariotti, DEQ, w/o
Bill Bates, DWR, w/o
Price Field Office
Bill Malencik

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State of Utah
DEPARTMENT OF NATURAL RESOURCES
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July 15, 1997

Chuck Semborski, Environmental Supervisor
PacifiCorp
P.O. Box 310
Huntington, UT 84528

Re: Soil Salvaging, PacifiCorp, Cottonwood/Wilberg Mine, ACT/015/019-97D, Folder #2,
Emery County, Utah

Dear Mr. Semborski:

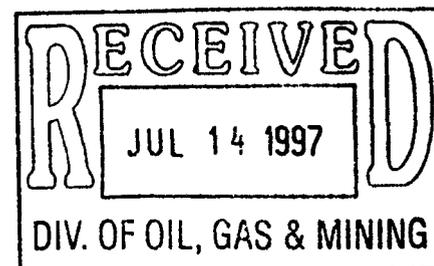
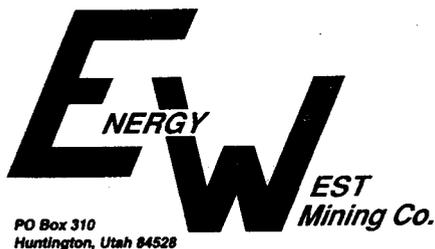
We have received the above-referenced amendment. Our agency anticipates reviewing this amendment by July 29, 1997. A copy is available for review at our Salt Lake office.

If you have any questions please call me at 538-5290.

Sincerely,

for 
Joseph C. Helfrich
Permit Supervisor

tt
cc: Ranvir Singh, OSM
Richard Manus, BLM
Janette S. Kaiser, BLM
Mark Page, Water Rights
Dave Ariotti, Health
Bill Bates, DWR
Price Field Office
O:\015019.CWW\FINAL\TRNSMITL.97D



July 9, 1997

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Attention: Robert Davidson

**Re: Amendment to Cottonwood Mine Waste Rock Site, Soil Salvaging,
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Large boulders encountered during material placement will be removed and either stored for rip-rap or placed in the refuse pile.

A new page designated as 2-10.3 of Chapter II, Operations section of the New Waste Rock Site Volume, will be required to incorporate language into the permit that provides for the soil material salvaging.

Revisions to the MRP

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Page 2-7 of the Waste Rock Volume has been revised. Text is highlighted.

Page 2-10.2 of the Waste Rock Volume has been revised. Text is highlighted.

Page 2-10.3 of the Waste Rock Volume is an added page to cover the language revision required for salvaging the material as described above.

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Sincerely,

Richard Northrup

Env. Eng.

A handwritten signature in cursive script that reads "Richard Northrup". The signature is written in black ink and is positioned below the typed name and title.

cc: Blake Webster
Carl Pollastro
Chuck Semborski
Barbara Adams (File)

to minimize erosion. As the waste material pile grows and encroaches upon the Initial diversion ditch, the ditch will be reconstructed at the toe of the waste pile to the same specifications as the Initial ditch. Interim control of drainage on the surface of the waste pile, and from a small area immediately adjacent and east of the pile, will be achieved by grading the material, which is placed in the site, so that the active surface of the pile will slope in a southwesterly direction. Runoff from the surface of the pile will discharge in a controlled manner into ditch DA and then to the sediment pond as shown on Drawing CM-10877-WB, Map Packet 4-14. Should water accumulate in depressions on the surface of the waste material, to a level which may affect the stability of the waste pile, this water will be pumped to the sediment pond. When the active surface of the refuse pile reaches an elevation of approximately 6795 feet, drainage control will be as the following describes. The western diversion ditch, labeled DA on Map 4-5, will drain the upland undisturbed areas, the top of the waste pile, the west slope of the waste pile and the top and inside slope of topsoil pile. The eastern diversion ditch (DB) will drain the east slope of the waste pile and top and inside slope of the subsoil stockpile. Total runoff to be collected into the sediment pond is 2.17 acre feet for the 10 year, 24 hour storm event. The estimated annual sediment production for the site is 1.65 acre feet. Actual design of the sediment pond will provide 4.58 acre feet of storage so that there is 2.41 acre feet of sediment storage available. The spillway for the sediment pond will safely pass the runoff from the 25 year, 6 hour storm event with the required one foot freeboard.

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 JAN 30 1997
 UTAH DIVISION OIL, GAS AND MINING

The outside slopes of the two soil stockpiles will have silt fences constructed at their bases or other methods to minimize and treat the runoff from precipitation and will be designated as alternate sediment control area, Map 1D, Map 4-2. Interim revegetation

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 JAN 03 1997
 UTAH DIVISION OIL, GAS AND MINING

INCORPORATED
 EFFECTIVE:
 JAN 30 1997 97A
 UTAH DIVISION OIL, GAS AND MINING
 PRICE FIELD OFFICE

terrace. This process will continue until the first three 10-foot high berms have been filled. Subsequent berms will be set back eight (8) feet from the outside edge of the top of the previously completed berm. This process will continue until site construction is completed. This configuration will result in an overall outslope of approximately 2.5:1 as recommended by Rollins, Brown & Gunnel (Stability Analysis, October 1992, see Pages 4-67 through 4-94). Contemporaneous reclamation activities will progress along with the construction of each berm. See Exhibit XXI, Chapter 4.

During the leveling process extraneous material, trash, and etc. will be separated from the fill material and disposed of in an approved sanitary landfill.

E. Sediment Pond Sludge

Material removed during cleaning of the Cottonwood, Des-Bee Dove and Trail Mountain sediment ponds will be placed in the waste rock site.

Sludge material that is dry enough to be immediately incorporated into the refuse material will be mixed with the waste rock and placed as previously described in Item D.

Sludge which contains more moisture than can be properly handled on the refuse pile will be placed in a containment area and allowed to dry. The containment area will be constructed within the refuse disposal area at a location that will allow drying of the sludge and maintain adequate working room for normal operation of the facility. When dry, the material will be excavated and distributed throughout the refuse area for incorporation and compaction. This procedure will help maintain the proper coal-to-rock ration throughout the site and ensure uniform stability.

Characteristics of Rock to be Stored in Site

In order to better understand the chemical and physical properties of the rock that will be placed in the waste

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AUG 18 1997
UTAH DIVISION OIL, GAS AND MINING

INCORPORATED
APR 16 1993