

### PERMIT TRACKING FORM

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

Date Received: <u>11/03/97</u> <u>1-15</u> By: <u>tat</u>	PERMIT NUMBER ACT/007/020	PERMIT CHANGE # 97F <u>2</u>
Title of Proposal: <u>Abatement Plans for N-97-45-1-1</u>	PERMITTEE HORIZON COAL COMPANY	MINE NAME HORIZON MINE
Description: # of Copies Required: <u>5</u> # of Copies Received: <u>6</u>		

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:	Letter to Permittee:

PFO REVIEW TRACKING	1ST ROUND		2ND ROUND		SLC REVIEW TRACKING	1ST ROUND		2ND ROUND	
<input type="checkbox"/> Lead <input type="checkbox"/> Generalist <input type="checkbox"/> Administrative _____ <input type="checkbox"/> Land Use/ AQ _____ <input type="checkbox"/> Biology _____ <input type="checkbox"/> Engineering _____ <input type="checkbox"/> Geology _____ <input type="checkbox"/> Soils _____ <input type="checkbox"/> Hydrology _____					<input type="checkbox"/> Lead <input type="checkbox"/> Administrative _____ <input type="checkbox"/> Land Use/ AQ _____ <input type="checkbox"/> Biology _____ <input checked="" type="checkbox"/> Engineering <u>JWK</u> <input type="checkbox"/> Geology _____ <input type="checkbox"/> Soils <u>RAD</u> <input checked="" type="checkbox"/> Hydrology <u>SKF</u>				
						<u>1/30</u>	<u>1/20</u>		
						<u>1/30</u>	<u>1/27</u>		
						<u>1/30</u>	<u>1/27</u>		

TA Review Done: <u>J. J. 98</u>	Date:	Permittee Response Due <input checked="" type="checkbox"/> Stipulation <input type="checkbox"/> Condition <input type="checkbox"/> No Requirements	Date:	DIVISION DECISION LETTER <input type="checkbox"/> APPROVE <input type="checkbox"/> DENY
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TA Review Done:	Date:	RESPONSE RECEIVED:	Date:	Date:
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COORDINATED REVIEWS	Phone Contact	1ST ROUND		2ND ROUND		RECEIVED	ADDITIONAL TRACKING:	DATE
		Sent	Due	Sent	Due			
<input type="checkbox"/> OSM- Copy							Public Hearing	
<input type="checkbox"/> BLM- Copy							Letter From Compliance Supervisor	
<input type="checkbox"/> BLM (SLC)- Ltr							AVS Completed	
<input type="checkbox"/> Water Rights- ltr							Approval Effective Date	
<input type="checkbox"/> DEQ- Letter							Approved Copy to File	
<input type="checkbox"/> DWR- Letter							Approved Copy to Permittee	
							Approved Copy to PFO/SLC	
							Approved Copy to Agencies	
							CHIA Modified	
							Update Master TA    Done/Needed	

Comments:

**Horizon Coal Corporation**  
**P.O. Box 599**  
**Helper, UT 84526**

November 3, 1997

Mr. Bob Davidson  
Utah Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 1210  
Salt Lake City, UT 84114

Subject: Notice of Violation N97-45-1-1  
Permit No. ACT/007/020  
Horizon Coal Corporation, Carbon County, Utah

Dear Bob,

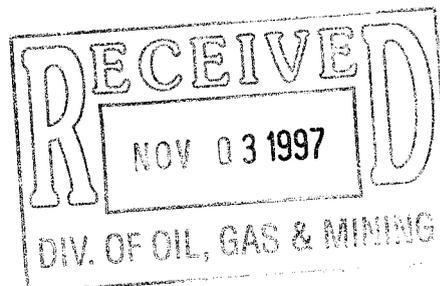
Enclosed please find six copies of the data to satisfy the Notice of Violation N97-45-1-1. The table of contents and pagination will be corrected for inclusion into the approved permit once the submittal is approved and the redlines have been removed. Should you require any additional information please contact me at (801) 561-1555.

Sincerely yours,



Vicky S. Bailey

cc: Joe Helfrich  
Bill Malensick



## Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: Horizon Coal Corporation response to Notice of Violation N97-45-1-1

Permit Number: ACT/007/020

Mine: Horizon Mine

Permittee: Horizon Coal Corporation

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 3, Pages 25 and 27
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Table 3-1
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Reclamation Topography for review, if approved the contours will be added to Plate 3-7
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Pages 8-20 through 8-27
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Figure 8-2
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 8-1 - Add data to the back of existing appendix

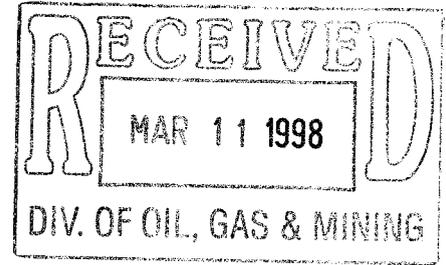
November 3, 1997



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)



February 25, 1998

Denise Dragoo, Resident Agent  
Van Cott, Bagley, Cornwall, & McCarthy  
50 South Main Street, Suite 1600  
Salt Lake City, Utah 84111-1495

Re: Notice of Violation N97-45-1-1, Horizon Mining, LLC, Horizon Mine, ACT/007/020-97F-3, File #2, Carbon County, Utah

Dear Ms. Dragoo:

The referenced amendment is hereby approved effective February 25, 1998. Please submit five (5) complete clean copies for distribution and insertion into your Mining and Reclamation Plan.

A termination notice for the associated notice of violation N97-45-1-1 is also enclosed.

If you have any questions, please call.

Sincerely,

*for*   
Joseph C. Helfrich  
Permit Supervisor

tat

Enclosure

cc: Ranvir Singh, OSM  
Richard Manus, BLM  
Alan Rabinoff, BLM  
Mark Page, Water Rights, w/o  
Dave Ariotti, DEQ, w/o  
Bill Bates, DWR, w/o  
Vicky Bailey, EarthFax  
Price Field Office

O:\007020.HZN\FINAL\APPROVAL.97G

# APPLICATION FOR PERMIT PROCESSING

<input 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/007/020
Title of Proposal:						Mine: HORIZON
C98-26-1-1 Abatement Plan - Small Culvert Design						Permittee: HORIZON COAL

Description, include reason for application and timing required to implement:

**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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9. Is the application submitted as a result of a Violation? <del>NOVEX</del> C98-26-1-1
<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 type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input 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?

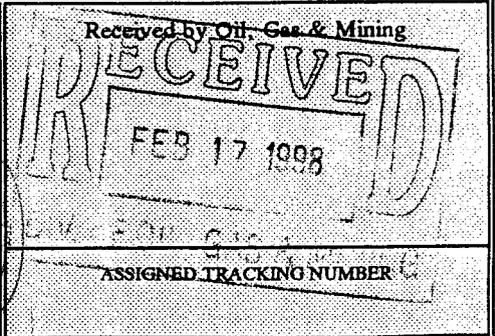
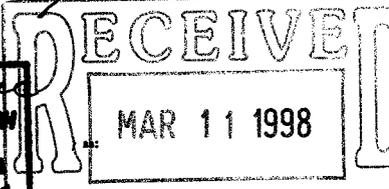
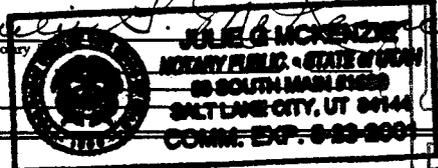
Attach 6 complete copies of the application.

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.

*Larry H. Jones* 2/12/98  
Signed - Name - Position - Date

Subscribed and sworn to before me this 12th day of Feb. 19 98

My Commission Expires: \_\_\_\_\_  
Attest: STATE OF  
COUNTY OF \_\_\_\_\_



DIV. OF OIL, GAS & MINING

## Application for Permit Change Detailed Schedule of Changes to the Permit

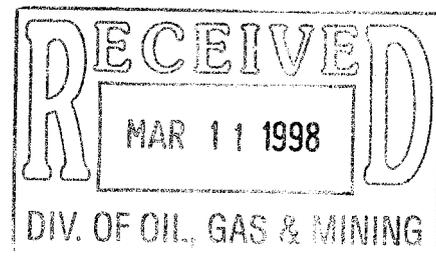
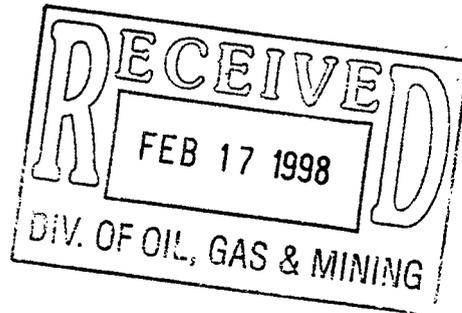
Title of Change: <b>Response to C98-26-1-1.</b>	Permit Number: <b>ACT/007/020</b>
	Mine: <b>Horizon Mine</b>
	Permittee: <b>Horizon Coal</b>

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. Include page, section and drawing numbers as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Extension of Culvert UC-3, Horizon Mine, ACT/007/020-97D-1, File #2
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 3-9, text
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 3-9, Patricia K. Johnston report
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 3-9, Drawing A (3 copies)

Only three copies of Drawing A were submitted with this package, an identical three copies were submitted this same day to address Culvert Extension UC-3 revisions. Additional copies will gladly be submitted if needed.

February 16, 1998



# 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/007/020
Title of Proposal: Culvert UC-3 Extension - Soil Salvage and Placement						Mine: HORIZON
						Permittee: HORIZON COAL

Description, include reason for application and timing required to implement:

**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 checked="" type="checkbox"/> Yes	<input 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?
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<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 type="checkbox"/> Yes	<input checked="" 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 6 complete copies of the application.

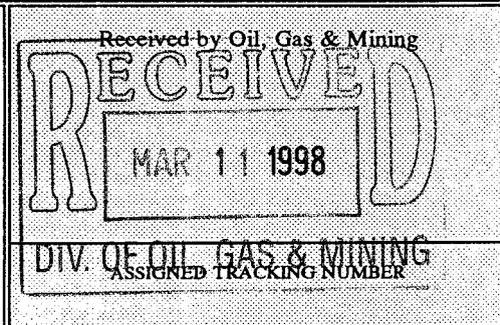
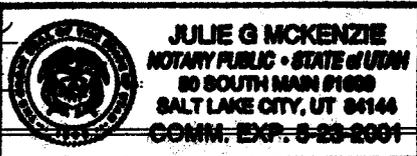
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

*Larry H. Jones* V.P. Mining  
 Signed - Name - Position - Date

Subscribed and sworn to before me this 11<sup>th</sup> day of Mar., 19 98.

*Julie G. McKenzie*  
 Notary Public

My Commission Expires: \_\_\_\_\_ 19\_\_\_\_  
 Attest: STATE OF \_\_\_\_\_  
 COUNTY OF \_\_\_\_\_



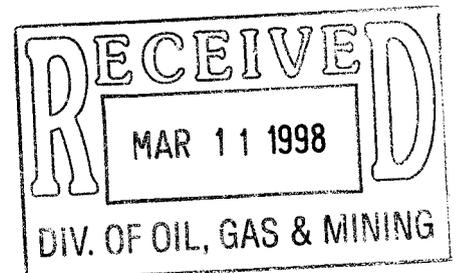
## Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: <b>Culvert UC-3 Extension - Soil Storage and Placement</b>	Permit Number: <b>ACT/007/020</b>
	Mine: <b>Horizon Mine</b>
	Permittee: <b>Horizon Coal</b>

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Table 8-3
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 8-1, Topsoil Stockpile Table
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 3, Page3-29

March 11, 1998





**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

ACT/607/020 #2  
Joe, Bob

March 11, 1998

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

Subject: Horizon Coal Corporation submittal of five copies of approved amendments  
for N 97-45-1-1 and C98-26-1-1.

Please find enclosed 5 copies of changes to the Horizon Coal Corporation permit. These changes include revisions to Chapters 3, 7, and 8. The revised data was approved and requested by the Division.

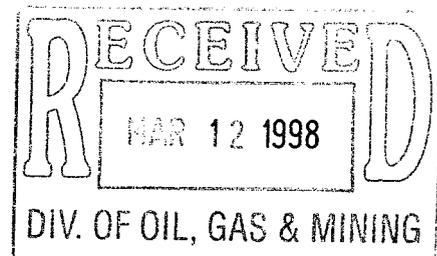
The response to C98-26-1-1 included Appendix 3-9 which is an addition to the permit, this appendix will be further defined once the amendment for the UC-3 culvert extension is approved. If I might make a suggestion, that this inclusion be held until the UC-3 culvert is approved. I have been assured that the UC-3 culvert extension approval will be approved shortly.

If you have any questions please contact me at (801) 561-1555.

Sincerely yours,

Vicky S. Bailey  
Permit Coordinator

cc: Bill Malencik



## Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: Horizon Coal Corporation submittal of 5 copies of the response to N97-45-1-1 amendment approval

Permit Number: ACT/007/020

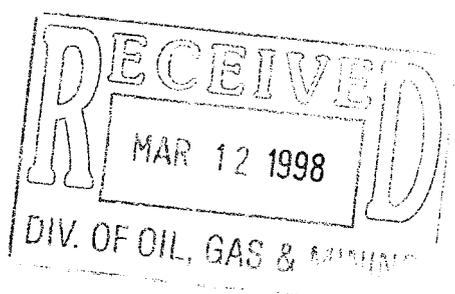
Mine: Horizon Mine

Permittee: Horizon Coal Corporation

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 3, Pages 3-29 and 3-30
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7, Pages 7-63, 7-65, and 7-67
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 7-4, Determination of Peakflows for Reclaimed Drainages -Pages 6 through 31 Appendix 7-4, Evaluation of Sediment Yield from Reclaimed Surface - Pages 1 through 8
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, text, tables and figures
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 8-1 , additional data including Plate A (Topsoil/Growth Medium Distribution) and Plate B (Reclamation Areas Requiring Topsoil)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	

March 11, 1998





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)

February 25, 1998

Denise Dragoo, Resident Agent  
Van Cott, Bagley, Cornwall, & McCarthy  
50 South Main Street, Suite 1600  
Salt Lake City, Utah 84111-1495

Re: Notice of Violation N97-45-1-1, Horizon Mining, LLC, Horizon Mine, ACT/007/020-97F-3, File #2, Carbon County, Utah

Dear Ms. Dragoo:

The referenced amendment is hereby approved effective February 25, 1998. Please submit five (5) complete clean copies for distribution and insertion into your Mining and Reclamation Plan.

A termination notice for the associated notice of violation N97-45-1-1 is also enclosed.

If you have any questions, please call.

Sincerely,

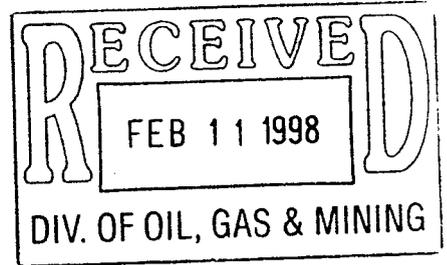
  
for Joseph C. Helfrich  
Permit Supervisor

tat  
Enclosure

cc: Ranvir Singh, OSM  
Richard Manus, BLM  
Alan Rabinoff, BLM  
Mark Page, Water Rights, w/o  
Dave Ariotti, DEQ, w/o  
Bill Bates, DWR, w/o  
Vicky Bailey, EarthFax  
Price Field Office

O:\007020.HZN\FINAL\APPROVAL.97G

Horizon Coal  
P.O. Box 599  
Helper, UT 84526



February 11, 1998

Pamela Grubaugh-Littig  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114-5801

Subject: Channel Configuration for NOV N97-26-7-1

Dear Pam,

Upon a request by Horizon Coal Corporation, please find enclosed 6 copies of changes to the Horizon Coal Corporation permit. These changes address soils issues associated with NOV N97-26-7-1. One copy of Plates 3-1, 3-7, 3-7A and Appendix 8-1, Plate B have been included for reference, six copies of the same plates were submitted on February 9, 1998 to address N97-45-1-1.

If you have any questions please contact me at (801) 561-1555.

Sincerely yours,

  
Vicky S. Bailey

cc: Bill Malensick

9AF

ACT/003/020  
#2  
Copy Joe #5

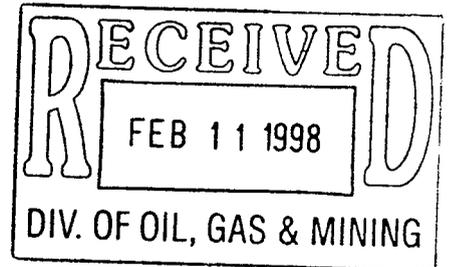
## Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: <b>Channel Configuration - NOV N97-26-7-1</b>	Permit Number: ACT/007/020
	Mine: Horizon Mine
	Permittee: Horizon Coal

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7, Pages 7-54
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 7-4, Operational Hydrology Section, Pages 16 through 18f

February 11, 1998



# APPLICATION FOR PERMIT PROCESSING

<input 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/007/020
Title of Proposal: Channel Configuration - N97-26-7-1						Mine: HORIZON
						Permittee: HORIZON COAL

Description, include reason for application and timing required to implement:

**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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # N97-26-7-1
<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 type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input type="checkbox"/> Yes	<input checked="" 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 checked="" type="checkbox"/> Yes	<input 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 6 complete copies of the application.

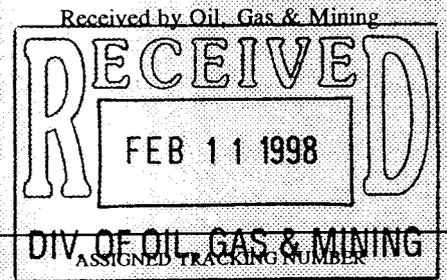
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

*Larry H Jones* 2/11/98  
Signed - Name - Position - Date

Subscribed and sworn to before me this 11<sup>th</sup> day of Feb., 19 98.

My Commission Expires: \_\_\_\_\_  
Attest: STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_

**JULIE G MCKENZIE**  
NOTARY PUBLIC - STATE OF UTAH  
1600 SOUTH MAIN #1600  
SALT LAKE CITY, UT 84143  
COMM. EXP. 8-23-2000





State of Utah  
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801-359-3940 (Fax)  
801-538-7223 (TDD)

February 2, 1998

Denise Dragoo, Resident Agent  
Van Cott, Bagley, Cornwall, & McCarthy  
50 South Main Street, Suite 1600  
Salt Lake City, Utah 84111-1495

Re: Abatement Plans for NOV N97-45-1-1, Horizon Coal Company, Horizon Mine,  
ACT/007/020-97F-2, File #2, Carbon County, Utah

Dear Ms. Dragoo:

The abatement plans for the referenced notice of violation still contain several deficiencies. They are outlined as follows:

## **ENVIRONMENTAL RESOURCE INFORMATION**

### **SOILS RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

#### **Analysis:**

Appendix 8-1, Soils Data, contains Environmental Resource Information for the imported topsoil resources that were distributed within the disturbance area on the north facing slopes within Portal Canyon and the lower end of Jewkes Creek. The imported topsoil was placed within three designated areas (Area A, B, & C, Plate A, Appendix 8-1).

Sampling and characterization of the imported topsoil resources after placement was performed on November 12, 1997. The purpose for sampling was to characterize the soil according to the Division's guidelines for topsoil and overburden.<sup>1</sup> Random samples were taken from each area and a composite made, giving three separate composite samples representing each

---

<sup>1</sup> Leatherwood, James, and Dan Duce. 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining. Salt Lake City, Utah.

of the three areas. Using grid sections and randomized numbers, five sample pairs each were collected from Areas A and B and seven pairs from Area C. The location of these randomized sample points are illustrated on Plate A, Appendix 8-1. Samples were obtained using a 12-inch long, 4-inch diameter bucket auger. Auger cores were taken, using the same depth/volume of soil at each location. After mixing the bulk composite samples, representative cuts were taken and submitted to the laboratory for analysis.

Laboratory data sheets are included in Appendix 8-1, in addition to the summarized data in table format. Based on the sample analysis results, soils in all three areas meet the Division guidelines for topsoil and overburden.

**Findings:**

The information provided meets the minimum regulatory requirements of this section.

## **OPERATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

**Analysis:**

Amendment 97F updates the operation plan with additional information as follows to meet the remedial action requirements for abatement of N97-45-1-1:

- Imported Soil's Placement and Volumes
- Soil Salvage Updates
- Disturbed Topsoil Stockpile Soil Placement
- Resoiled Areas Protection and Stabilization
- Plate 3-1, Surface Facilities

#### **Imported Soil's Placement and Volumes**

Section 8.8.1, Resoiled Areas, Appendix 8-1, and Plate A Appendix 8-1 all give an accounting of soil imported into the surface disturbance area, placement locations, thickness,

affected acreage, and soil volumes. Appendix 8-1 contains an "Imported Topsoil Table" identifying topsoil volumes by location. The total amount of topsoil imported is 975 cubic yards distributed between Areas A, B, and C with soil placement thickness between 10 to 12 inches.

The locations within the disturbed area which received the imported topsoil are designated on Plate A, Appendix 8-1. They are identified as soils removed and placed by land owner's contractor during the county road realignment. Area A is located at the lower Jewkes Canyon surface disturbance area; Area B and C are located along the lower to mid south slope in the Portal Canyon area.

### **Soil Salvage Updates**

A new table, Topsoil/Growth Medium Recovery and Placement Calculations, is located in Appendix 8-1. Information in the table, Appendix 8-1 is presented as follows:

- The surveyed volume of topsoil recovered during mine construction, prior to the UC-3 culvert extension, is shown as 10,993 cubic yards.
- The 10,993 cubic yards excludes the un-salvaged, south hillside which is located at the toe of the stockpile. This hillside is described in detail in Section 8.8.1 and is shown on Plate A, Appendix 8-1.
- The current surveyed volume of soil in the stockpile, prior to the UC-3 culvert extension, is shown at 10,494 cubic yards. This volume takes into account the 499 cubic yards of topsoil that was removed from the stockpile during repair of the crushed culvert and placed on Area D (Section 8.8.1 & Plate A, Appendix 8-1).
- The total surveyed volume of soil currently placed in the stockpile, prior to the UC-3 culvert extension, including the in-place soils available in Area 10 and 11, is estimated at 14,448 CY. This volume does not include the volume of soil imported to Areas A, B, and C.
- The resulting survey volume of soil agrees with the 1996 calculated topsoil salvaged during construction. The soil-salvage report submitted by EarthFax to Horizon, Appendix 8-1, Soil Salvage Practices Fall 1996, December 15, 1996 calculated a stockpile volume of 15,312 CY and a compaction corrected volume of 13,741 CY, which included Area 10 & 11. The estimated projected volume of soil to be salvaged at the start of construction was estimated at 13,670 cubic yards as shown in Table 8-3, Chapter 8.

### **Disturbed Topsoil Stockpile Soil Placement**

This section, and the following section, both discuss activities that occurred during the 1996 and 1997 construction phases of mine development. Section 3.5.1 of the current Mine Reclamation Plan refers to these activities as "Contemporaneous Reclamation." Otherwise, these activities are considered reclamation and are covered by R645-301-240, Reclamation Plans.

Section 8.8.1, Resoiled Areas, includes discussion on the topsoil removal from the stockpile and soil placement in Area D (see Plate A, Appendix 8-1). During the repair of the crushed culvert, permission was granted from the Division's Price office for disturbing a portion of the stockpile. Soil was subsequently removed from above and around the crushed culvert which runs through the topsoil stockpile. The culvert was crushed during portal construction, thus requiring repair (see N97-26-5-1). The damaged portion of UC-2 culvert was replaced and installed within the topsoil stockpile. Topsoil was used to fill around and bury the repaired culvert; no fill material was used during the original installation nor during the culvert repair.

Area D (Plate A, Appendix 8-1) received 499 cubic yards of the displaced topsoil from the stockpile disturbance during the culvert repair. Approximately 11 inches of topsoil was placed on the hillside above the supply building, office, and bath house locations. The amendment discusses that adjacent in-place undisturbed and pre-Horizon Mine soils above Area D were disturbed by machinery during soil placement. The in-place soils were graded and blended with the surface of the topsoiled area.

### **Resoiled Areas Protection and Stabilization**

The amendment states that all resoiled areas during 1997 will be retained and not re-disturbed except to receive seed, mulch, and fertilizer. This includes areas receiving imported topsoil and soil redistributed from the stockpile (Areas A, B, C, & D, Plate A, Appendix 8-1). These soiled areas were seeded, fertilized and stabilized as described in Section 3.5.1.

For the short term to protect these areas from erosion, the surfaces were roughened with either the tracks of a dozer or a trackhoe prior to mulching and reseeded. Seed mix 1 was applied using hydro seeding. It appears as though the seed and mulch were applied in the same application since the amendment then states that the hydro-seed mixture included long fiber mulch with a tackifier was then applied. The blanket of seed and mulch is used to provide temporary protection from surface erosion. The operator plans on maintaining the resoiled areas by filling rills and gullies and reseeded when necessary until vegetation is established.

Permanent protection against erosion of the resoiled areas will be achieved by vegetation

reestablishment and by excluding disturbance of these resoiled areas. The amendment then proposes other possible methods of protection, but does not commit to any specific method. Protection of the Portal Canyon slope which parallels the coal stockpile will be provided by installing concrete jersey barriers at the bottom of the slope to prevent equipment from accessing the slope. In addition, the barriers would form a boundary for the bottom of the coal stockpile. Should the resoiled areas adjacent to the coal loading facilities become impacted with coal, alternate methods will be used for removing the coal, i.e., vacuuming.

### **Plate 3-1, Surface Facilities**

A surface facilities' map (Plate 3-1, Surface Facilities) has been submitted which updates operational contours as a result of altered topography from both the topsoil placement during "contemporaneous reclamation" and the illegal installation of the UC-3 culvert extension. Both these operational activities have had a direct impact on the current surface topography (see NOV N97-45-1-1 and CO 98-26-1-1). This Technical Analysis considers the unauthorized placement of topsoil while CO 98-26-1-1 deals with the illegal installation of the UC-3 culvert extension.

### **Findings:**

The information provided meets the minimum regulatory requirements of this section.

## **RECLAMATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

### **Analysis:**

The reclamation portion of the culvert extension amendment contains the following items that are either discussed or still need additional corrections:

- Soil Redistribution
- Reclamation Updates

### **Soil Redistribution**

Section 8.8, Plans for Redistribution of Soils, and Plate B Appendix 8-1, contains information for soil redistribution. This information has been updated as impacted from the 1997 activities of importing topsoil and distributing topsoil from the disturbed stockpile during the

crushed culvert repair. During final reclamation, topsoil placement thickness will be 23 inches. The thickness of topsoil placement is calculated from the total available topsoil divided by the total area to receive topsoil. Plate B, Appendix 8-1, shows all reclamation areas that will receive topsoil. As shown, not all of the surface within surface disturbance area boundary is disturbed and, therefore, only 4.75 acres of the 9.15 acres of disturbance will actually receive topsoil. *However, the soiled portions as shown on Plate B, Appendix 8-1, do not agree with the altered reclamation topography as shown on Plate 3-7, Reclamation Topography. The south slope of Portal Canyon and the northeast hillside adjacent to the UC-3 culvert extension both contain additional altered reclamation topography that will need topsoil placement as shown by the darkened contour lines.*

### **Reclamation Updates**

The unapproved reclamation activities (N97-45-1-1) altered the approved Mine Reclamation Plan by changing calculated final reclamation fills thereby invalidating portions of the approved reclamation plan. Amendment 97F addresses and supplies the following:

- Details regarding the reestablishment of both drainage areas in Jewkes Creek and Portal Canyon are provided in the currently approved MRP, Section 7.2.3.2.
- The road on the north side of Portal Canyon will be reclaimed by backfilling, regrading, and top-soiling.
- A simple one sentence statement is given that states: "In general, fill material for reclamation will be obtained from adjacent areas of cut material." *The MRP still needs specific discussion concerning the impact of contemporaneous reclamation of "adjacent" hillsides on the following: (a) ultimate removal of construction fills for reestablishment of drainage ways and (b) ultimate placement of construction fills against the reclaimed hillsides.*
- Updated reclamation cut and fill calculations are provided in Table 3-1.
- Plates 3-7, Reclamation Topography, and 3-7A, Post Mining Cross Sections, are provided showing revised reclamation contours and cross sections.

### **Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-300-142 and 143, R645-301-120, R645-301-500 and R645-301-600, Two part:**  
(1) The soiled portions as shown on Plate B, Appendix 8-1, do not agree with the altered reclamation topography as shown on Plate 3-7, Reclamation Topography. The south slope of Portal Canyon and the northeast hillside adjacent to the UC-3 culvert extension both contain additional altered reclamation topography needing topsoil placement as shown by the darkened contour lines. (2) The MRP still needs specific discussion concerning the impact of contemporaneous reclamation of "adjacent" hillsides on the following: (a) ultimate removal of construction fills for reestablishment of drainage ways and (b) ultimate placement of construction fills against the reclaimed hillsides.

## **Reclamation Plan**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### **Analysis:**

#### **Grading to Drain and Approximate Original Contour**

The permittee has committed to keep surface drainage from entering sealed entries in section 3.5.3.1. The permittee has committed to re-contour the area to drain to the final reclamation channel in section 3-25. However, contour information on the reclamation topography plate 3-7 shows an area near the confluence of Jewkes Creek and the Portal canyon drainage which does not drain to the channel. This area retains the existing road configuration. The retention of the road bed here has the potential to concentrate water and increase erosion potential. This area should be reconfigured to grade with the surrounding hillside and the road bed configuration should be removed.

#### **Diversions**

The permittee has proposed a drainage plan which re-configures Jewkes Creek's drainage channel and Portal Canyon drainage channel. The new configuration of Portal Canyon eliminates the basin behind the existing embankment.

Portal Canyon was designed to carry a peak flow of 9.95 cfs. The permittee's analysis assumed a one foot flow line because no high water mark was found. Since this is an ephemeral system it is often difficult to determine the height of the channel forming flows. Typically the

channel forming flows are high intensity short durations events in ephemeral systems. Based on the presented design information the design capacity of this channel exceeds the minimum required design flow for an ephemeral system. Based on the topography provided on plate 3-7 the portal canyon channel will have a maximum slope of 0.16 ft /ft and a minimum slope of 0.02 ft/ft. The Portal Canyon channel design should use the maximum channel slope as presented in the proposed configuration for channel designs.

The Upper Jewkes Creek channel is designed to carry 143.5 cfs in the combined channel and flood plain configuration while, the Lower Jewkes Creek channel is designed to handle a combined channel and flood plain flow of 150.6 cfs. The estimated capacity of the upper end of the disturbance was 27.65 cfs based on a high water mark. The estimated capacity of the downstream channel below the disturbance was determined to be 38.67 cfs. The reclamation channel capacity downstream is designed to exceed the capacity of the Jewkes Creek channel upstream and down stream of the site based on presented design information. The design will allow flows from the design 100- year, 6-hour event to pass through the channel and flood plain configuration.

The centrally-located channel section is placed away from the toe of steep backfilled slopes. A small riprapped channel section is designed to carry a low flow from the 10-year, 6-hour event. A sand filter blanket is provided to promote recharge into the surrounding soils. **See the Jan. 16, 1988 memo regarding riprap sizing.**

The Jewkes Creek channel design is intended to provide a means to re-establish the riparian vegetation, existing at the site prior to disturbance, and is intended to simulate the pre-mining channel configuration while considering other site conditions. Some issues that are related to the success of the permittee's proposal are based on the hydraulic characteristics of the soil adjacent to the channel, the gradient downstream of the site and, the amount of sediment and intensity of flows being transported through the system. Intuitively it seems the areas of steeper gradient would not contain the check dams and the accumulation of flow and flatter gradient would be used to establish the riparian area. The proposed design concept is to decrease the gradient through deposition within the higher gradient areas. The ability of this design to be stable may be measured through the ability of the design to withstand flows received at the site.

According to Rosgren's Classification system Jewkes Creek would approximate an "E stream type" configuration. The channel type is based on characteristics of the existing stream gradient assuming a moderate sediment supply and healthy vegetation. The classic channel under these conditions would have a width to depth ratio less than 12, an entrenchment ratio greater than 2.2, a sinuosity greater than 1.5 and, a surface water slope less than 0.02. Because there is a high sediment load in the existing system (upstream logging presently occurring) and because the potential for additional flows from the reclaimed channel section and an increased slope, a channel more closely resembling a "C stream type" might be more appropriate.

The upper channel RD-2 is designed to include channel slope ranging from 0.03 to 0.07 ft/ft. The minimum slope based on the topographic contour information is 0.015 ft/ft and the maximum slope is 0.049 ft/ft. Loose rock check dams, 1.5 ft high with a designed spillway, and apron will be installed at upstream and downstream locations. The most efficient spacing is to place the check dams at the upstream toe of the deposition behind the previous check dam (Heede, 1976). To determine this distance, for an initial gradient less than 20%, the deposition behind the slope is approximately 0.7 of the initial gradient. This would result in slopes of 0.034 and 0.011 ft/ft behind the dams following accumulation of sediment. A spacing of approximately 136 linear feet between dams would result for the 0.015 slope and approximately 44 linear feet between dams would result for the 0.049 slope. The proposed locations are in the steeper section of the channel and are designed between 75 and 50 feet apart. These distances appear appropriate for the proposed gradient where the check dams are located according to plate 3-7.

The lower channel RD-3 is designed to include a channel slope ranging from 0.02 to 0.07 ft/ft. The lower portion will have check dams while the upper section will not incorporate check dams. The minimum and maximum slopes, based on Plate 3-7, are 0.08 and 0.027 ft/ft. The design provides a small channel within a larger channel to construct a flood plain while providing stability. The typical bottom width of the flood plain is 30 feet while the base channel will be 8 feet wide and contain the low check dam with a four foot wide notched spillway. The design proposed eliminates check dam keys. These were determined unnecessary by the designer because they are surrounded with the channel filter blanket. Check dam keys are designed to anchor the structure and to retain flow within the channel preventing water from cutting around the structure. Cutting usually occurs once sediment is deposited behind the structure and water spills over the length of the dam. Should significant cutting of this nature occur design reconstruction may be necessary. The designs provided considers the site conditions and the goals of reclamation and meets the regulatory requirements for design flow.

During reclamation the 4 inch pipeline from Sweets Pond to the mine site will be disconnected, the end of the pipes will be plugged and, the pipeline abandoned in place. The reclamation for this site should be performed in a timely manner since it is no longer proposed to be used.

### **Findings:**

The permittee must provide the following, in accordance with the requirements of:

- R645-301-731.** 1) The maximum slope in the proposed reclamation site configuration, as shown on Plate 3-7, should be used where the maximum slope is used to design the channel especially for Porter Fork where the difference is significant. 2) Regrade the area which retains the road at the junction of Portal Canyon and

Jewkes Creek to blend with the surrounding hillside. The road bed configuration should be removed as this area has the potential to concentrate water and increase erosion.

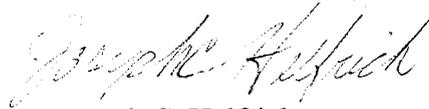
**RECOMMENDATION:**

The identified deficiencies should be addressed and incorporated into the plan prior to approval of this document.

The notice of violation has been extended to February 9, 1998, for the permittee's complete and accurate response to the referenced deficiencies, and Feb. 23, 1998 for final abatement for the referenced abatement.

If you have any questions, please call.

Sincerely,



Joseph C. Helfrich  
Permit Supervisor



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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801-538-7223 (TDD)

January 30, 1998

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Jess Kelley, Reclamation Specialist *JK*

RE: Abatement Plans for NOV N97-45-1-1 (Amendment 97F), Horizon Coal Corporation, Horizon Mine, ACT/007/020-AM97F-2, Folder #2, Carbon County, Utah

**SUMMARY:**

On November 3, 1997, the permittee submitted for Division approval an amendment for the abatement of Notice of Violation (NOV) N97-45-1-1. The Division found that this amendment lacked the necessary specific information and rejected it.

The permittee resubmitted the amendment on December 5, 1997. The Division found a number of deficiencies in the reclamation plan revisions in this submittal and returned it to the permittee for correction.

On January 16, 1998, the permittee submitted corrections to the December 5, 1997 submittal. This submittal dealt mainly with issues of hydrology and soils, but Division Soils Reclamation Specialist Robert Davidson, who is the lead reviewer of the submittal, asked this writer to review the maps and cross sections contained therein. This technical memorandum constitutes the findings of this writer's from that review.

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

**Analysis:**

**Mining facilities maps.**

In 1997, the turnaround area at the confluence of Portal Canyon and Jewkes Creek was enlarged. This enlargement was designated Amendment 97F. The pad in that area was extended approximately 100 feet up Jewkes Creek and the bypass culvert underlying the pad was also lengthened to accommodate the extension.

The permittee revised Plate 3-1--Surface Facilities to show the culvert and pad extension of Amendment 97F. This map was certified January 16, 1998 by Richard B. White, a professional engineer registered in the state of Utah.

**Findings:**

The plan fulfills the requirements of this section.

## **RECLAMATION PLAN**

### **MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

**Analysis:**

**Reclamation backfilling and grading maps.**

In 1997, the turnaround area at the confluence of Portal Canyon and Jewkes Creek was enlarged. This enlargement was designated Amendment 97F. The pad in that area was extended approximately 100 feet up Jewkes Creek and the bypass culvert underlying the pad was also lengthened to accommodate the extension.

The permittee revised Plate 3-7--Reclamation Topography to show the anticipated final surface configuration of the culvert and pad extension area of Amendment 97F. Plate 3-7 also shows the locations of 8 cross sections which were derived from this map and are shown on Plate 3-7A--Post Mining Cross Sections.

The permittee used the cross sections shown on Plate 3-7A to derive cut-and-fill

volume estimates for final reclamation. These estimates are shown in Table 3-1, page 3-30. They show an estimated cut volume of approximately 11,238 cubic yards and an estimated fill requirement of approximately 12,939 cubic yards.

Plates 3-7 and 3-7A were certified January 16, 1998 by Richard B. White, a professional engineer registered in the state of Utah.

**Final surface configuration maps.**

In 1997, the turnaround area at the confluence of Portal Canyon and Jewkes Creek was enlarged. This enlargement was designated Amendment 97F. The pad in that area was extended approximately 100 feet up Jewkes Creek and the bypass culvert underlying the pad was also lengthened to accommodate the extension.

The permittee revised Plate 3-7--Reclamation Topography to show the anticipated final surface configuration of the culvert and pad extension area of Amendment 97F. This map was certified January 16, 1998 by Richard B. White, a professional engineer registered in the state of Utah.

**Findings:**

The plan fulfills the requirements of this section.

**RECOMMENDATION:**

It is recommended that the maps, cross sections, and reclamation earthwork volume estimates of Amendment 97F be accepted as fulfilling the abatement requirements of NOV N97-45-1-1.



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

January 27, 1998

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: NOV N97-45-1-1 Amendment, Horizon Coal Corporation, Horizon Mine,  
ACT/007/020-97F, Folder #2, Carbon County, Utah

**SYNOPSIS:**

Horizon Coal Corporation submitted an amendment on 11/3/97 for abating the Notice of Violation N97-45-1-1. The Division responded on November 7, 1997. Generally, the amendment was found deficient because of lack of specific information required for abatement.

On November 19, 1997, an informal Hearing and Assessment Conference was held to review the fact of violation and proposed assessment for the violation N97-45-1-1. On December 9, 1997, the Division issued a "Findings of Fact, Conclusions of Law and Order and Finalized Assessment for Notice of Violation (NOV) N97-45-1-1." The violation was upheld. By order, Horizon Coal Corporation must abate the NOV in accordance with schedules established in the NOV.

Horizon resubmitted Amendment 97F on December 5, 1997 and the amendment was still found deficient with respect to reclamation as discussed in the Division's Technical Analysis written on December 18, 1997. An extension was granted with Horizon responding one day late on January 16, 1998. This Technical Analysis reviews this latest submittal.

**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

**SOILS RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

**Analysis:**

Appendix 8-1, Soils Data, contains Environmental Resource Information for the imported topsoil resources that were distributed within the disturbance area on the north facing slopes within Portal Canyon and the lower end of Jewkes Creek. The imported topsoil was placed within three designated areas (Area A, B, & C, Plate A, Appendix 8-1).

Sampling and characterization of the imported topsoil resources after placement was performed on November 12, 1997. The purpose for sampling was to characterize the soil according to the Division's guidelines for topsoil and overburden.<sup>1</sup> Random samples were taken from each area and a composite made, giving three separate composite samples representing each of the three areas. Using grid sections and randomized numbers, five sample pairs each were collected from Areas A and B and seven pairs from Area C. The location of these randomized sample points are illustrated on Plate A, Appendix 8-1. Samples were obtained using a 12-inch long, 4-inch diameter bucket auger. Auger cores were taken, using the same depth/volume of soil at each location. After mixing the bulk composite samples, representative cuts were taken and submitted to the laboratory for analysis.

Laboratory data sheets are included in Appendix 8-1, in addition to the summarized data in table format. Based on the sample analysis results, soils in all three areas meet the Division guidelines for topsoil and overburden.

**Findings:**

The information provided meets the minimum regulatory requirements of this section.

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<sup>1</sup> Leatherwood, James, and Dan Duce. 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining. Salt Lake City, Utah.

## **OPERATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

#### **Analysis:**

Amendment 97F updates the operation plan with additional information as follows to meet the remedial action requirements for abatement of N97-45-1-1:

- Imported Soil's Placement and Volumes
- Soil Salvage Updates
- Disturbed Topsoil Stockpile Soil Placement
- Resoiled Areas Protection and Stabilization
- Plate 3-1, Surface Facilities

#### **Imported Soil's Placement and Volumes**

Section 8.8.1, Resoiled Areas, Appendix 8-1, and Plate A Appendix 8-1 all give an accounting of soil imported into the surface disturbance area, placement locations, thickness, affected acreage, and soil volumes. Appendix 8-1 contains an "Imported Topsoil Table" identifying topsoil volumes by location. The total amount of topsoil imported is 975 cubic yards distributed between Areas A, B, and C with soil placement thickness between 10 to 12 inches.

The locations within the disturbed area which received the imported topsoil are designated on Plate A, Appendix 8-1. They are identified as soils removed and placed by land owner's contractor during the county road realignment. Area A is located at the lower Jewkes Canyon surface disturbance area; Area B and C are located along the lower to mid south slope in the Portal Canyon area.

#### **Soil Salvage Updates**

A new table, Topsoil/Growth Medium Recovery and Placement Calculations, is located in Appendix 8-1. Information in the table, Appendix 8-1 is presented as follows:

- The surveyed volume of topsoil recovered during mine construction, prior to the UC-3 culvert extension, is shown as 10,993 cubic yards.

- The 10,993 cubic yards excludes the un-salvaged, south hillside which is located at the toe of the stockpile. This hillside is described in detail in Section 8.8.1 and is shown on Plate A, Appendix 8-1.
- The current surveyed volume of soil in the stockpile, prior to the UC-3 culvert extension, is shown at 10,494 cubic yards. This volume takes into account the 499 cubic yards of topsoil that was removed from the stockpile during repair of the crushed culvert and placed on Area D (Section 8.8.1 & Plate A, Appendix 8-1).
- The total surveyed volume of soil currently placed in the stockpile, prior to the UC-3 culvert extension, including the in-place soils available in Area 10 and 11, is estimated at 14,448 CY. This volume does not include the volume of soil imported to Areas A, B, and C.
- The resulting survey volume of soil agrees with the 1996 calculated topsoil salvaged during construction. The soil-salvage report submitted by EathFax to Horizon, Appendix 8-1, Soil Salvage Practices Fall 1996, December 15, 1996 calculated a stockpile volume of 15,312 CY and a compaction corrected volume of 13,741 CY, which included Area 10 & 11. The estimated projected volume of soil to be salvaged at the start of construction was estimated at 13,670 cubic yards as shown in Table 8-3, Chapter 8.

### **Disturbed Topsoil Stockpile Soil Placement**

This section, and the following section, both discuss activities that occurred during the 1996 and 1997 construction phases of mine development. Section 3.5.1 of the current Mine Reclamation Plan refers to these activities as "Contemporaneous Reclamation." Otherwise, these activities are considered reclamation and are covered by R645-301-240, Reclamation Plans.

Section 8.8.1, Resoiled Areas, includes discussion on the topsoil removal from the stockpile and soil placement in Area D (see Plate A, Appendix 8-1). During the repair of the crushed culvert, permission was granted from the Division's Price office for disturbing a portion of the stockpile. Soil was subsequently removed from above and around the crushed culvert which runs through the topsoil stockpile. The culvert was crushed during portal construction, thus requiring repair (see N97-26-5-1). The damaged portion of UC-2 culvert was replaced and installed within the topsoil stockpile. Topsoil was used to fill around and bury the repaired culvert; no fill material was used during the original installation nor during the culvert repair.

Area D (Plate A, Appendix 8-1) received 499 cubic yards of the displaced topsoil from the stockpile disturbance during the culvert repair. Approximately 11 inches of topsoil was placed on the hillside above the supply building, office, and bath house locations. The

amendment discusses that adjacent in-place undisturbed and pre-Horizon Mine soils above Area D were disturbed by machinery during soil placement. The in-place soils were graded and blended with the surface of the topsoiled area.

### **Resoiled Areas Protection and Stabilization**

The amendment states that all resoiled areas during 1997 will be retained and not re-disturbed except to receive seed, mulch, and fertilizer. This includes areas receiving imported topsoil and soil redistributed from the stockpile (Areas A, B, C, & D, Plate A, Appendix 8-1). These soiled areas were seeded, fertilized and stabilized as described in Section 3.5.1.

For the short term to protect these areas from erosion, the surfaces were roughened with either the tracks of a dozer or a trackhoe prior to mulching and reseeded. Seed mix 1 was applied using hydro seeding. It appears as though the seed and mulch were applied in the same application since the amendment then states that the hydro-seed mixture included long fiber mulch with a tackifier was then applied. The blanket of seed and mulch is used to provide temporary protection from surface erosion. The operator plans on maintaining the resoiled areas by filling rills and gullies and reseeded when necessary until vegetation is established.

Permanent protection against erosion of the resoiled areas will be achieved by vegetation reestablishment and by excluding disturbance of these resoiled areas. The amendment then proposes other possible methods of protection, but does not commit to any specific method. Protection of the Portal Canyon slope which parallels the coal stockpile will be provided by installing concrete jersey barriers at the bottom of the slope to prevent equipment from accessing the slope. In addition, the barriers would form a boundary for the bottom of the coal stockpile. Should the resoiled areas adjacent to the coal loading facilities become impacted with coal, alternate methods will be used for removing the coal, i.e., vacuuming.

### **Plate 3-1, Surface Facilities**

A surface facilities' map (Plate 3-1, Surface Facilities) has been submitted which updates operational contours as a result of altered topography from both the topsoil placement during "contemporaneous reclamation" and the illegal installation of the UC-3 culvert extension. Both these operational activities have had a direct impact on the current surface topography (see NOV N97-45-1-1 and CO 98-26-1-1). This Technical Analysis considers the unauthorized placement of topsoil while CO 98-26-1-1 deals with the illegal installation of the UC-3 culvert extension.

### **Findings:**

The information provided meets the minimum regulatory requirements of this section.

## RECLAMATION PLAN

### TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

#### Analysis:

The reclamation portion of the culvert extension amendment contains the following items that are either discussed or still need additional corrections:

- Soil Redistribution
- Reclamation Updates

#### Soil Redistribution

Section 8.8, Plans for Redistribution of Soils, and Plate B Appendix 8-1, contains information for soil redistribution. This information has been updated as impacted from the 1997 activities of importing topsoil and distributing topsoil from the disturbed stockpile during the crushed culvert repair. During final reclamation, topsoil placement thickness will be 23 inches. The thickness of topsoil placement is calculated from the total available topsoil divided by the total area to receive topsoil. Plate B, Appendix 8-1, shows all reclamation areas that will receive topsoil. As shown, not all of the surface within surface disturbance area boundary is disturbed and, therefore, only 4.75 acres of the 9.15 acres of disturbance will actually receive topsoil. *However, the soiled portions as shown on Plate B, Appendix 8-1, do not agree with the altered reclamation topography as shown on Plate 3-7, Reclamation Topography. The south slope of Portal Canyon and the northeast hillside adjacent to the UC-3 culvert extension both contain additional altered reclamation topography that will need topsoil placement as shown by the darkened contour lines.*

#### Reclamation Updates

The unapproved reclamation activities (N97-45-1-1) altered the approved Mine Reclamation Plan by changing calculated final reclamation fills thereby invalidating portions of the approved reclamation plan. Amendment 97F addresses and supplies the following:

- Details regarding the reestablishment of both drainage areas in Jewkes Creek and Portal Canyon are provided in the currently approved MRP, Section 7.2.3.2.
- The road on the north side of Portal Canyon will be reclaimed by backfilling, regrading, and top-soiling.

- A simple one sentence statement is given that states: "In general, fill material for reclamation will be obtained from adjacent areas of cut material." *The MRP still needs specific discussion concerning the impact of contemporaneous reclamation of "adjacent" hillsides on the following: (a) ultimate removal of construction fills for reestablishment of drainage ways and (b) ultimate placement of construction fills against the reclaimed hillsides.*
- Updated reclamation cut and fill calculations are provided in Table 3-1.
- Plates 3-7, Reclamation Topography, and 3-7A, Post Mining Cross Sections, are provided showing revised reclamation contours and cross sections.

**Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

- R645-300-142 and 143, R645-301-120, R645-301-500 and R645-301-600,** Two part: (1) The soiled portions as shown on Plate B, Appendix 8-1, do not agree with the altered reclamation topography as shown on Plate 3-7, Reclamation Topography. The south slope of Portal Canyon and the northeast hillside adjacent to the UC-3 culvert extension both contain additional altered reclamation topography needing topsoil placement as shown by the darkened contour lines. (2) The MRP still needs specific discussion concerning the impact of contemporaneous reclamation of "adjacent" hillsides on the following: (a) ultimate removal of construction fills for reestablishment of drainage ways and (b) ultimate placement of construction fills against the reclaimed hillsides.



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January 27, 1998

TO: File 

THRU: Joe Helfrich, Daron Haddock, Permit Supervisor's

FROM: Sharon Falvey, Senior Reclamation Specialist 

RE: Notice of Violation N97-45-1-1 response, Horizon Coal Company, Horizon Mine, ACT/007/020-97F 1/15/98, Folder #2, Carbon County, Utah

## SYNOPSIS

This violation has resulted in a need to re-establish the final reclamation of the site. This review is related to review of the final surface configuration. Applicable portions of the Technical Analyses (TA) should be incorporated into the next TA update.

## ANALYSIS

### Reclamation Plan

### HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### Analysis:

#### Grading to Drain and Approximate Original Contour

The permittee has committed to keep surface drainage from entering sealed entries in section 3.5.3.1. The permittee has committed to re-contour the area to drain to the final reclamation channel in section 3-25. However, contour information on the reclamation topography plate 3-7 shows an area near the confluence of Jewkes Creek and the Portal canyon drainage which does not drain to the channel. This area retains the existing road configuration. The retention of the road bed here has the potential to concentrate water and increase erosion potential. This area should be reconfigured to grade with the surrounding hillside and the road bed configuration should be removed.

### **Diversions.**

The permittee has proposed a drainage plan which re-configures Jewkes Creek's drainage channel and Portal Canyon drainage channel. The new configuration of Portal Canyon eliminates the basin behind the existing embankment.

Portal Canyon was designed to carry a peak flow of 9.95 cfs. The permittee's analysis assumed a one foot flow line because no high water mark was found. Since this is an ephemeral system it is often difficult to determine the height of the channel forming flows. Typically the channel forming flows are high intensity short durations events in ephemeral systems. Based on the presented design information the design capacity of this channel exceeds the minimum required design flow for an ephemeral system. Based on the topography provided on plate 3-7 the portal canyon channel will have a maximum slope of 0.16 ft /ft and a minimum slope of 0.02 ft/ft. The Portal Canyon channel design should use the maximum channel slope as presented in the proposed configuration for channel designs.

The Upper Jewkes Creek channel is designed to carry 143.5 cfs in the combined channel and flood plain configuration while, the Lower Jewkes Creek channel is designed to handle a combined channel and flood plain flow of 150.6 cfs. The estimated capacity of the upper end of the disturbance was 27.65 cfs based on a high water mark. The estimated capacity of the downstream channel below the disturbance was determined to be 38.67 cfs. The reclamation channel capacity downstream is designed to exceed the capacity of the Jewkes Creek channel upstream and down stream of the site based on presented design information. The design will allow flows from the design 100- year, 6-hour event to pass through the channel and flood plain configuration.

The centrally-located channel section is placed away from the toe of steep backfilled slopes. A small riprapped channel section is designed to carry a low flow from the 10-year, 6-hour event. A sand filter blanket is provided to promote recharge into the surrounding soils. **See the Jan. 16, 1988 memo regarding riprap sizing.**

The Jewkes Creek channel design is intended to provide a means to re-establish the riparian vegetation, existing at the site prior to disturbance, and is intended to simulate the pre-mining channel configuration while considering other site conditions. Some issues that are related to the success of the permittee's proposal are based on the hydraulic characteristics of the soil adjacent to the channel, the gradient downstream of the site and, the amount of sediment and intensity of flows being transported through the system. Intuitively it seems the areas of steeper gradient would not contain the check dams and the accumulation of flow and flatter gradient would be used to establish the riparian area. The proposed design concept is to decrease the gradient through deposition within the higher gradient areas. The ability of this design to be stable may be measured through the ability of the design to withstand flows received at the site.

According to Rosgren's Classification system Jewkes Creek would approximate an "E stream type" configuration. The channel type is based on characteristics of the existing stream gradient assuming a moderate sediment supply and healthy vegetation. The classic channel under these conditions would have a width to depth ratio less than 12, an entrenchment ratio greater than 2.2, a sinuosity greater than 1.5 and, a surface water slope less than 0.02. Because there is a high sediment load in the existing system (upstream logging presently occurring) and because the potential for additional flows from the reclaimed channel section and an increased slope, a channel more closely resembling a "C stream type" might be more appropriate.

The upper channel RD-2 is designed to include channel slope ranging from 0.03 to 0.07 ft/ft. The minimum slope based on the topographic contour information is 0.015 ft/ft and the maximum slope is 0.049 ft/ft. Loose rock check dams, 1.5 ft high with a designed spillway, and apron will be installed at upstream and downstream locations. The most efficient spacing is to place the check dams at the upstream toe of the deposition behind the previous check dam (Heede, 1976). To determine this distance, for an initial gradient less than 20%, the deposition behind the slope is approximately 0.7 of the initial gradient. This would result in slopes of 0.034 and 0.011 ft/ft behind the dams following accumulation of sediment. A spacing of approximately 136 linear feet between dams would result for the 0.015 slope and approximately 44 linear feet between dams would result for the 0.049 slope. The proposed locations are in the steeper section of the channel and are designed between 75 and 50 feet apart. These distances appear appropriate for the proposed gradient where the check dams are located according to plate 3-7.

The lower channel RD-3 is designed to include a channel slope ranging from 0.02 to 0.07 ft/ft. The lower portion will have check dams while the upper section will not incorporate check dams. The minimum and maximum slopes, based on Plate 3-7, are 0.08 and 0.027 ft/ft. The design provides a small channel within a larger channel to construct a flood plain while providing stability. The typical bottom width of the flood plain is 30 feet while the base channel will be 8 feet wide and contain the low check dam with a four foot wide notched spillway. The design proposed eliminates check dam keys. These were determined unnecessary by the designer because they are surrounded with the channel filter blanket. Check dam keys are designed to anchor the structure and to retain flow within the channel preventing water from cutting around the structure. Cutting usually occurs once sediment is deposited behind the structure and water spills over the length of the dam. Should significant cutting of this nature occur design reconstruction may be necessary. The designs provided considers the site conditions and the goals of reclamation and meets the regulatory requirements for design flow.

During reclamation the 4 inch pipeline from Sweets Pond to the mine site will be disconnected, the end of the pipes will be plugged and, the pipeline abandoned in place. The reclamation for this site should be performed in a timely manner since it is no longer proposed to be used.

**Findings:**

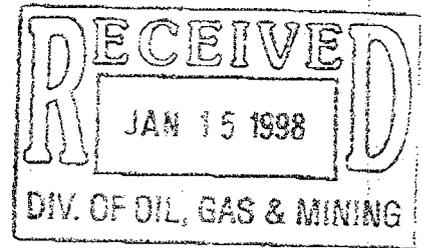
The permittee must provide the following, in accordance with the requirements of:

**R645-301-731.** 1) The maximum slope in the proposed reclamation site configuration, as shown on Plate 3-7, should be used where the maximum slope is used to design the channel especially for Porter Fork where the difference is significant. 2) Regrade the area which retains the road at the junction of Portal Canyon and Jewkes Creek to blend with the surrounding hillside. The road bed configuration should be removed as this area has the potential to concentrate water and increase erosion.

**RECOMMENDATION:**

The identified deficiencies should be addressed and incorporated into the plan prior to approval of this document.

Horizon Coal Corporation  
P.O. Box 599  
Helper, UT 84526



January 15, 1998

Mr. Robert Davidson  
Utah Division of Oil, Gas & Mining  
1594 West No. Temple  
Suite 1210  
Salt Lake City, UT 84114-5801

ACT/007/020 #2

Subject: Notice of Violation No. N97-45-1-1, Amendment 97F

Dear Robert,

The purpose of this letter is to address Notice of Violation No. N97-45-1-1, which was issued by the Utah Division of Oil, Gas & Mining to Horizon Coal Corporation. Enclosed with this letter please find six copies each of Plates 3-7 and 3-7A presenting reclamation contours and cross sections of Jewkes and Portal Canyons.

Also enclosed are six copies of a revised Plate 3-1 (Surface Facilities) and of changes to appropriate text to address comments in the letter of December 19, 1997 from Joe Helfrich to Denise Dragoo. Please note that Section 7.2.3.2 of the M&RP describes the reestablishment of the Jewkes Creek and Portal Canyon drainages, while Section 3.5.4 discusses the placement of construction fills.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Vicky S. Bailey".

Vicky S. Bailey  
Permitting Consultant  
EarthFax Engineering, Inc.



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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December 19, 1997

Denise Dragoo, Resident Agent  
Van Cott, Bagley, Cornwall, & McCarthy  
50 South Main Street, Suite 1600  
Salt Lake City, Utah 84111-1495

Re: NOV N97-45-1-1 Abatement Plans, Horizon Coal Company, Horizon Mine,  
ACT/007/020-97F, File #2, Carbon County, Utah

Dear Ms. Dragoo:

The referenced amendment has been review by Bob Davidson, Reclamation Specialist for the Division. His technical analysis is provided for your review. Please respond to the several deficiencies noted herein by January 15, 1998.

## RECLAMATION PLAN

### TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

#### Analysis:

The reclamation portion of the culvert extension amendment contains the following items that are either discussed or still need additional corrections:

- Soil Redistribution
- Reclamation Updates Needed

#### Soil Redistribution

Section 8.8, Plans for Redistribution of Soils, and Plate B Appendix 8-1, contain information for soil redistribution. This information has been updated as impacted from the 1997 activities of importing topsoil and distributing topsoil from the disturbed stockpile during the crushed culvert repair. During final reclamation, topsoil placement thickness will be 23 inches. The thickness of topsoil placement is calculated from the total available topsoil divided by the total area to receive topsoil. Plate B, Appendix 8-1, shows all reclamation areas that will receive

topsoil. As shown, not all of the surface within surface disturbance area boundary is disturbed and, therefore, only 4.75 acres of the 9.15 acres of disturbance will actually receive topsoil.

### **Reclamation Updates Needed**

The unapproved reclamation activities (N97-45-1-1) have altered the approved Mine Reclamation Plan by changing calculated final reclamation fills thereby invalidating portions of the approved reclamation plan. Amendment 97F needs to address the following:

- Describe in detail how reclamation will be achieved to reestablish both drainage areas in Jewkes Creek and Portal Canyon.
- Discuss the precise removal and ultimate placement of construction fills during reclamation.
- Provide plates showing revised reclamation contours and cross sections.

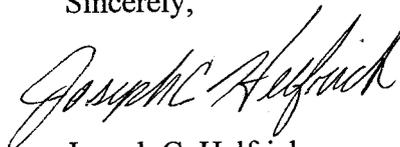
### **Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-300-142 and 143, R645-301-120, R645-301-500 and R645-301-600,** The unapproved reclamation activities (N97-45-1-1) have altered the approved Mine Reclamation Plan by changing calculated final reclamation fills thereby invalidating portions of the approved reclamation plan. Amendment 97F needs to describe in detail how reclamation will be achieved to reestablish both drainage areas in Jewkes Creek and Portal Canyon, discuss the precise removal and ultimate placement of construction fills during reclamation, and provide plates showing revised reclamation contours and cross sections.

If you have any questions, please call.

Sincerely,



Joseph C. Helfrich  
Permit Supervisor



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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801-538-7223 (TDD)

December 10, 1997

Denise Dragoo, Resident Agent  
Van Cott, Bagley, Cornwall, & McCarthy  
50 South Main Street, Suite 1600  
Salt Lake City, Utah 84111-1495

Re: Abatement Plans for NOV N97-45-1-1, Horizon Coal Company, Horizon Mine,  
ACT/007/020-97F-1, File #2, Carbon County, Utah

Dear Ms. Dragoo:

Additional information addressing topsoil issues of the referenced notice of violation was received at our office December 5, 1997. Our agency anticipates completing our review of this proposal by December 22, 1997. Copies for review and comment are available at our Salt Lake and Price Offices.

If you have any questions please call.

Sincerely,

A handwritten signature in cursive script that reads "Joseph C. Helfrich".

Joseph C. Helfrich  
Permit Supervisor

tat  
cc: Vicky Bailey, EarthFax  
Price Field Office  
O:\007020.HZNF\FINAL\TRANSMIT.97F

**Horizon Coal Corporation  
P.O. Box 599  
Helper, Utah 84526**

ACT/007/020 #2  
Joe  
Bob

December 8, 1997

Mr. Robert Davidson  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114-5801

Subject: Notice of Violation N97-45-1-1  
ACT 007/020, Horizon Coal Corporation,  
Carbon County, Utah

97F-1

Dear Bob,

On behalf of Horizon Coal Corporation I am requesting an extension of the abatement date for completion of the requirements of N97-45-1-1. A submittal was made on December 5, 1997 to address additional issues discussed in a meeting on December 4, 1997. The Division staff will require additional time to complete the review of the data submitted.

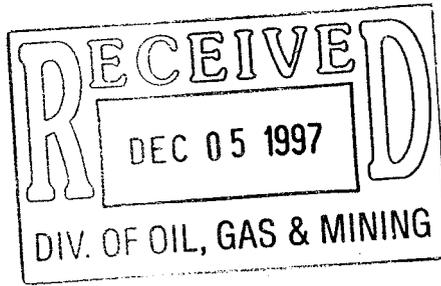
Once the review is completed, EarthFax should be able to address any additional comments within a week's time, therefore we are requesting an extension to the 22nd of December. Should you need additional time for review please extend the data accordingly. Thank you for your assistance in this extension.

Sincerely yours,

  
Vicky S. Bailey

cc: Bill Malencik  
Joe Helfrich

December 5, 1997



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

*ATF-2*

Mr. Robert Davidson  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114-5801

*Joe  
Copy given to Bob  
ACT/007/020 # 2*

Dear Bob,

Upon a request by Horizon Coal Corporation, please find enclosed 6 copies of soils information to address NOV N97-45-1-1.

If you have any questions please contact me at (801) 561-1555.

Sincerely yours,

*Vicky*  
Vicky S. Bailey

Form DQGM - C1 (Last Revised December 4, 1997)

File Folder # 3

# APPLICATION FOR PERMIT PROCESSING

Permit Change <input checked="" type="checkbox"/>	New Permit <input type="checkbox"/>	Renewal <input type="checkbox"/>	Transfer <input type="checkbox"/>	Exploration <input type="checkbox"/>	Bond Release <input type="checkbox"/>	Permit Number: ACT/007/020
Title of Proposal: Response to NOV N97-45-1-1 remedial action requirements						Mine: HORIZON
						Permittee: HORIZON COAL

Description, include reason for application and timing required to implement:

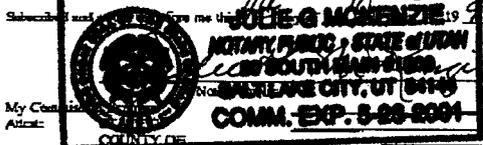
**Instructions:** If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

<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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # N97-45-1-1
<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 R2P21)
<input checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input 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 6 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.

*Larry A. ...* U.P. Mining 12/04/97  
Signed: Name Position - Date



Received by OIL, Gas & Mining  
 DEC 15 1997  
 DIV. OF OIL, GAS & MINING  
 SALT LAKE CITY, UT 84143  
 ASSIGNED TRACKING NUMBER

## Application for Permit Change Detailed Schedule of Changes to the Permit

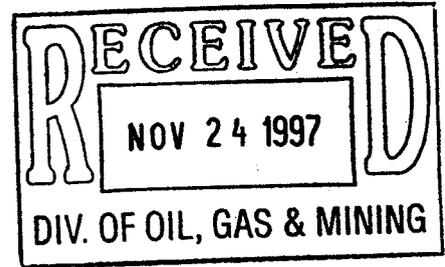
Title of Change: <b>Response to NOV N97-45-1-1 remedial action requirements.</b>	Permit Number: <b>ACT/007/020</b>
	Mine: <b>Horizon Mine</b>
	Permittee: <b>Horizon Coal Corporation</b>

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 8-1 including Plate A and B - add to the end of the existing data
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Text, Tables and Figures
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	

December 5, 1997

Horizon Coal Corporation  
P.O. Box 599  
Helper, UT 84526



November 21, 1997

Coal Regulatory Division  
Mr. Robert Davidson  
Utah Division of Oil, Gas & Mining  
1594 West No. Temple  
Suite 1210  
Salt Lake City, UT 84114-5801

*Copy Joe & Bob*  
*NOV file*  
*ACT/007/020 #5*  
*+ Amendment file*

Subject: Notice of Violation No. N97-45-1-1 and the Amendment to Extend  
Culvert UC-3 (ACT/007/020-97D)

*97F*

Dear Robert,

The purpose of this submittal is to address the amendment requirements of NOV No. N97-45-1-1, and the UC-3 Culvert Extension. The reason they have been combined is because the soils information requirements are the same for both.

The pages submitted from Chapter 9 and Plate A, Appendix 9-2 are provided to address the culvert extension.

Portions of this submittal were hand delivered today. The remainder includes Plate B for Appendix 8-1, Page 8-24 and Appendix 8-1, Topsoil Stockpile Table which were faxed to the Division on November 21, 1997. Six hard copies of the faxed information will be submitted Monday, November 24, 1997.

Sincerely,

A handwritten signature in cursive script that reads "Vicky".

Vicky S. Bailey  
Permitting Consultant, EarthFax Engineering, Inc.



# APPLICATION FOR PERMIT PROCESSING

<b>Permit Change</b> <input checked="" type="checkbox"/>	<b>New Permit</b> <input type="checkbox"/>	<b>Renewal</b> <input type="checkbox"/>	<b>Transfer</b> <input type="checkbox"/>	<b>Exploration</b> <input type="checkbox"/>	<b>Bond Release</b> <input type="checkbox"/>	<b>Permit Number:</b> ACT/007/020
<b>Title of Proposal:</b> Soil and Vegetation Issues						<b>Mine:</b> HORIZON
						<b>Permittee:</b> HORIZON COAL

Description, include reason for application and timing required to implement:

**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.
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<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?
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<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?
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<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
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<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
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<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?

RECEIVED

NOV 24 1997

DIV. OF OIL, GAS & MINING

Attach 6 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.

*Larry A. Jones* V.P. Mining

Subscribed and sworn to before me on \_\_\_\_\_ day of \_\_\_\_\_, 1997.

**JULIE MCKENZIE**  
 NOTARY PUBLIC - STATE OF UTAH  
 22 SOUTH MAIN STREET  
 SALT LAKE CITY, UT 84144  
 COMM. EXP. 5-23-2001

My Commission Expires \_\_\_\_\_  
 Attest: \_\_\_\_\_  
 STATE OF \_\_\_\_\_  
 COUNTY OF \_\_\_\_\_

Received by Oil, Gas & Mining

RECEIVED

NOV 21 1997

DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER



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)

November 7, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: NOV N97-45-1-1 Amendment, Horizon Coal Corporation, Horizon Mine,  
ACT/007/020-97F, Folder #2, Carbon County, Utah

**SYNOPSIS:**

Horizon Coal Corporation submitted an amendment on 11/3/97 for abating the Notice of Violation N97-45-1-1. However, information contained in the N-97-45-1-1 amendment is not sufficient and maps are not ready for review. Therefore, the amendment is found deficient and abatement is still pending.

**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

**SOILS RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

**Analysis:**

Sampling and characterization of imported topsoil resources is not contained in the amendment. Imported topsoil from outside the disturbance area needs to be sampled and characterized according to the Division's guidelines for topsoil and overburden.<sup>1</sup>

---

<sup>1</sup> Leatherwood, James, and Dan Duce. 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining. Salt Lake City, Utah.

**Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-301-223 and R645-301-120.** Imported topsoil from outside the disturbance area needs to be sampled and characterized according to the Division's guidelines for topsoil and overburden.

## **OPERATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

**Analysis:**

The operation plan needs additional information as follows to meet the remedial action requirements for abating N-97-45-1-1:

(1) Figure 8-2, Growth Medium Removal Locations, has been revised to show Area 12. Area 12 has not been approved for topsoil removal, has no bearing on N-97-45-1-1, and therefore Figure 8-2 needs no revision in connection to N-97-45-1-1.

(2) Plate A, Appendix 8-1 has several problems that need to be rectified:

- The map is not certified by a Professional Engineer.
- The purple region, interim soil placement from soils salvaged from the U-3 culvert extension has not been approved, nor has it occurred. Therefore, this referenced region on Plate A has no bearing on N-97-45-1-1 and should not be included in this submittal.
- The green shaded region located adjacent and south of the red, stockpile disturbed region is not discussed by the MRP. Section 3.5.1, Contemporaneous Reclamation, discusses the "left" hillside where soils were placed from the stockpile disturbance during repair of the crushed culvert. In addition, during the field visit on September 9, 1997, DOGM was told that soil removed from the stockpile was placed on the south facing slopes above the portals (Technical Field Report, 9/9/97).
  - Has additional disturbance of the stockpile resulted in soil placement on this north-facing slope?
  - If so, was this action approved by the Division? Dates, soil volumes, soil

placement thickness need to be verified.

- Finally, since no soil was salvaged from this slope during construction, what happened to the original soils if they are now buried under redistributed topsoil?

- Affected **acreage** and **soil volumes** need to be given for each area of soil placement. This information is needed for accurately assessing soil placement thicknesses and evaluating soil mass balance calculations.

(3) Remedial action to abate N-97-45-1-1 required information on pre-existing and existing volumes of topsoil in the stockpile. This amendment addresses this remedial action by supplying a new table, Topsoil/Growth Medium Recovery and Placement Calculations, located in Appendix 8-1. As shown in the table, past and current volumes of soil medium in the stockpile are surveyed at 10,993 and 10,223 CY, respectively. Information in the table, Appendix 8-1 is unclear for the following reasons:

- No text discussion is given for Table Appendix 8-1.
- The surveyed quantity (10,993 CY) of soil medium recovered in 1996 differs markedly from the actual topsoil stockpile volume of 15,312 CY and a compaction corrected volume of 13,741 CY (includes Area 10 & 11 and calculated from the report submitted by EathFax to Horizon, Appendix 8-1, Soil Salvage Practices Fall 1996, December 15, 1996). A soil stockpile deficit of 2,748 CY therefore exists and an accurate accounting of the soil resources is necessary for the Division to evaluate these results and operation activities at the Horizon Mine:
  - Horizon must account for the 2,748 CY soil deficit?
  - Was this soil used as fill during portal construction or repair of the broken culvert (see field report 9/9/97, Topsoil Stockpile Disturbance)?
  - Does this difference take into account the soil removed from the stockpile while repairing the crushed culvert?
  - When were these surveys performed?
- Footnote (b) states that the surveyed amount (10,933 CY) excludes the hill located on the left side of Portal Canyon below the topsoil stockpile which will remain during reclamation. This "hill" presents some perplexing questions that need to be answered in order for the Division to determine the accuracy of this table:
  - The phrase "left side of Portal Canyon" is unclear and does not designate which direction (north, south, etc.). The assumption is north, northwest.
  - Does this "undisturbed" hill contain soil that should have been salvaged?
  - If soil was left, why is this soil part of the recovery and placement calculations?
  - Photographs from last fall (Figure 1 of this TA) show that all north, northwest hills located adjacent, immediately above the Portal Canyon pad and below the soil stockpile were disturbed during the 1996 fall construction

period. Figure 8-2 clearly shows that no soil was salvaged from these slopes, yet the photograph (TA Figure 1) clearly shows that these hillsides were affected during construction. Therefore, if these slopes were affected during construction, why wasn't soil salvaged?

- Since the amendment states that the hill will remain undisturbed, how can this statement be rectified since these north, northwest hills were disturbed?

- The meaning of "Soil Medium Placed" in 1997 is unclear. The assumption is that this statement refers to soil removed from the stockpile and placed in contemporaneous reclamation areas as shown on Plate A, Appendix 8-1.
- Footnote (c) states that soil replacement depth will increase from 11" to 14" during reclamation. It is unclear how the "14 inches" was calculated.

(4) The referenced letter in Appendix 8-1 from Hidden Splendor Resources, LTD to Denise A. Dragoo states the following: "Any remaining topsoil in connection with Horizon Mine Permit No. ACT/007/020 may be used by KTK Construction Company." Since this letter is being submitted as part of the MRP, this statement needs to be clarified. Topsoil resources in connection with the Horizon permit may not be used except as specified by the MRP. Therefore, additional correspondence to KTK Construction Company, Inc. needs to clarify that topsoil resources may only be used, disturbed, stored, and redistributed as approved in the MRP and in connection with the Horizon Mine permit.

### **Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-300-142 and 143, R645-301-120 and R645-301-252 and 252.** Please answer all concerns outlined in the Operations Analysis section listed above.

## **RECLAMATION PLAN**

### **TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

### **Analysis:**

The submittal contains a map showing proposed reclamation contours, but the map is not in a format that is acceptable for review by the Division., nor does the MRP contain any discussion in relation to this map and alterations to reclamation contours as affected by contemporaneous reclamation activities. Finally, the map is not certified by a Professional

Engineer.

Contemporaneous reclamation activities have altered the structural integrity of the approved MRP for reestablishment of drainage ways and ultimate placement and disposal of construction fills. Therefore, the amendment needs to discuss how contemporaneous activities have altered the approved reclamation plan as follows:

- Describe in detail how reclamation will be achieved to reestablish both drainage areas in Jewkes Creek and Portal Canyon.
- Discuss the precise removal and ultimate placement of construction fills during reclamation.
- Provide plates showing revised reclamation contours and cross sections.

**Findings:**

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

**R645-300-142 and 143, R645-301-120, R645-301-500 and R645-301-600.** Please answer all concerns outlined in the Reclamation Analysis section listed above.

**Horizon Coal Corporation**  
**P.O. Box 599**  
**Helper, UT 84526**

ACT/007/020 #2  
Bob  
N-97-45-1-1

November 3, 1997

Mr. Bob Davidson  
Utah Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 1210  
Salt Lake City, UT 84114

Subject: Notice of Violation N97-45-1-1  
Permit No. ACT/007/020  
Horizon Coal Corporation, Carbon County, Utah

Dear Bob,

Enclosed please find six copies of the data to satisfy the Notice of Violation N97-45-1-1. The table of contents and pagination will be corrected for inclusion into the approved permit once the submittal is approved and the redlines have been removed. Should you require any additional information please contact me at (801) 561-1555.

Sincerely yours,



Vicky S. Bailey

cc: Joe Helfrich  
Bill Malensick

