

0002



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangarter  
Governor  
Dee C. Hansen  
Executive Director  
Dianne R. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

December 8, 1992

Mr. Edwin Settle  
Supervisor - EQC Dept.  
Consolidation Coal Company  
12755 Olive Boulevard  
St. Louis, MO 63141

Dear Mr. Settle:

Re: Approval of Refuse Diversion Ditch D-2A, Consolidation Coal Company, Emery Deep Mine, ACT/015/015-92D, Folder #3, Emery County, Utah

The Division has completed a review of the materials received on October 23, 1992 intended to correct problems with the refuse diversion ditch at the Emery Deep Mine. The information is adequate to allow the construction of Ditch D-2A as proposed and you are hereby approved to proceed with that construction. There are however a few deficiencies with the plans and maps as submitted. These are identified in the enclosed technical memo written by Sharon Falvey.

It is felt that an appropriate time to respond to the deficiencies would be with as-built drawings submitted upon completion of the ditch construction. This should be done by no later than February 8, 1993. Please call me or Sharon if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Daron R. Haddock".

Daron R. Haddock  
Permit Supervisor

Enclosure

cc: S. Falvey  
J. Helfrich  
S. Demczak, PFO  
S. Behling (Emery Mine)

REFUDITC.EME



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

Norman H. Bangarter  
Governor  
Dee C. Hansen  
Executive Director  
Dianne R. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

December 8, 1992

TO: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Reclamation Specialist *SRF*

RE: Refuse Ditch Diversion Amendment 92D, Consolidation Coal Co., Emery Deep Mine, ACT\015/015, Folder #2, Emery County, Utah

**Summary:**

The operators proposed ditch sizing is adequate to convey the design event. However, values in determining the design peak flow on the lower ditches have changed.

The proposed D-2A ditch design is recommended for approval. However, the operator should remove references to D-2 and D-1 which indicate adequate sizing of the existing ditch designs on page 27A of 38 Appendix VI-6. Although ditch configuration may be adequate changes in existing conditions should be accounted for. The changes in the existing ditch watersheds, and maps should be corrected and addressed as permit deficiencies required to be submitted to the Division. Deficiencies and analysis are outlined below. The analysis is broke into two categories Maps and Ditch Designs.

**Maps**

**Proposal:**

Plate I-1, III-4, II-8, IV-8, IV-10, IV-13, VI-13, VI-17 were revised to show the extension of the berm at the mine entrance and changes in site configuration at the coal stockpile and temporary development waste site, jeep trail, and mine yard areas.

**Analysis:**

**Coal Stock Pile and Temporary Waste Development Site and, Jeep Trail**

The operator shows an increase in the area designated for the temporary waste rock site. This area is increased by 1.17 acres. This increase changes the actual disturbed area. According to the map the operator has bonded for a larger area than is presently disturbed therefore the bond probably would not be affected however, this area increase should be included in the total presently disturbed area.

The operator has removed the ditch previously shown on the north side of the Plant access road and added a 12" "existing" culvert. Ditch 2A on the east end of the coal stockpile is added while the secondary drainage Ditch no. 1, at the northeast end is shorter than shown on the previous map configuration.

A berm was added to the south edge of the plant access road. The berm is shown with a separation in it. The purpose of the berm was to retain the disturbed area runoff from flowing onto the undisturbed site. The operator will need to mend the berm to prevent contamination of the topsoil outside of the disturbed area and correct the berm configuration on the map.

Additional changes include the Jeep Trail (road) removed from the map(s). It should be noted that Disturbed area boundaries are not included on some of the maps. This will probably be addressed in the midterm review.

#### Mine Yard Area

Plate III-4 incorrectly shows the topsoil pile in the drainage adjacent to the plant access road.

#### Mine Yard Area

Changes to the mine yard area include the removal of the following:

- 28A Truck Scale
- 22 Gasoline Fuel Storage (located at truck scale)
- 23 Diesel Fuel Storage
- 14 Storage Trailers (were near coal storage)
- 16 Tipple Office Trailers (were near coal storage)

Changes to the mine yard area include the addition of the following (note some changes were made to Plate II-1 previously Received at the Division on Nov 12, 1991):

- 40 Material Storage Area
- 21 Oil Storage Area (across from pond 2)
- 22 Wen-on Tank (across from pond 2)
- 4 Surface Storage Tank Containment Areas
- 41 Tank Excavation (removed underground tank)
- 16 Tipple Transformer Building
- 24 Underground Mine Power Switch House

#### Deficiencies

1. Correctly show the topsoil pile in the drainage adjacent to the plant access road on Plate III-4.
2. Show the berm adjacent to the plant access road as a continuous berm.
3. Correct actual disturbed area acreage.

## Ditch Designs

### Proposal:

Ditch 2A will be located along the eastern perimeter of the site for approximately 200 ft and drain into the Ditch No. 22. No additional drainage will be introduced into this system. Ditch 2A will be designed to carry a peak flow of 5 cfs. Based on the small drainage boundary and similar rainfall values for the 10 year 24 hour event, re-sizing of Ditch D2 will not be necessary.

The 18" downstream culvert passing under the plant access road is capable of discharging 6 cfs according to pg 24 of 38 Appendix VI-6.

Pg.1 of 38 in Appendix VI-6 indicates slopes resulting in peak velocities exceeding 4.0 fps will provide erosion mitigating structures in the drainage.

### Analysis:

The proposed design size for ditch 2A is conservative. A couple of deficiencies exist because of variation between the operators previous submittal and present conditions are noted for Ditch 1 and 2.

The area described by the earlier permit does not consider the same extent of disturbed area therefore the CN would be larger for the lower perimeter ditches D-1 and D-2. The Division's values for the drainage areas were slightly larger than the operators because the areas were determined from a smaller scale map (1" =100'). The peak flow resulting from the Divisions calculations were larger than 5 cfs presented by the operator. However, the existing ditch configuration may be acceptable because the ditch as it is proposed provides one ft. of freeboard. One foot freeboard is conservative in safety design. With the proposed ditch D-2 using the minimum slope (0.5% in D-2) and assuming a 0.5 ft freeboard the ditch can handle approximately 12 cfs.

Flow velocities determined from using the Divisions analysis on ditches D1 and D2 is greater than the 4 fps identified for erosion control in earthen ditches. The operator does not use the maximum slope for determining the velocity in D1 and D2. The operator will be required to provide erosion control design if erosive velocities are determined using the maximum slope.

The operator has included a cross-sectional diagram and profile for Ditch 2A. The diagram does not reference the map showing where the cross section and survey is located. Contrary to the projected height of flow for the ditch the operators ditch profile (figure VI-27B) shows a 2.65' flowline at the break in slope.

The designs for the new map addition incorporating the "existing 12" road culvert" could not be located in the existing

plan.

The operator removed the previously existing ditch shown at north side of the plant access road on Plate IV-10. The road design shows a crowned road with two ditches on either side of the road. The ditches must be labeled, shown on the appropriate drainage map and designed for the 10 year 6 hour event per R645-301-732.400.

Deficiencies:(cont.)

4. Clarify the discrepancy between the ditch design flow line and the indicated design depth for D2-A.
5. Correct the existing ditch design information to represent conditions at the site. Provide justification for the CN used in the lower ditches D2 and D1 as the previous percentage of disturbed area has changed. Changes in the peak event that may result should be shown to pass through the existing 18" culvert.
6. Erosive velocities are determined using maximum slope. Erosion control (riprap) requirements for Ditch D-1 and D-2 should be reassessed.
7. Provide a design for or, location of text description and design for the 12" culvert at the plant access road.
8. Provide ditch designs for the plant access road drainage. The ditches must be labeled, shown on the appropriate drainage maps and designed for the 10 year 6 hour event per R645-301-732.400.



United States Environmental Protection Agency  
Washington, D. C. 20460

# NPDES Compliance Inspection Report

Form Approved  
OMB No. 2040-0003  
Approval Expires 7-31-85

## Section A: National Data System Coding

Transaction Code: 1 **N** 2 **5** 3 **U** 4 **T** 5 **0** 6 **0** 7 **2** 8 **2** 9 **6** 10 **1** 11 **6** 12 **100991** 17 **18R** 19 **S** 20 **2**

NPDES: 3 **U** 4 **T** 5 **0** 6 **0** 7 **2** 8 **2** 9 **6** 10 **1** 11 **6**

yr/mo/day: 12 **100991** 17

Inspection Type: 18 **R**

Inspector: 19 **S**

Fac Type: 20 **2**

Remarks: 911009

21 Reserved: 67  69 Facility Evaluation Rating: 70  BI: 71  QA: 72  Reserved: 73  74 75  80

## Section B: Facility Data

Name and Location of Facility Inspected: **CONSOLIDATION COAL COMPANY  
NW QTR SECTION 33 T22S RGE  
UTAH**

Entry Time:  AM  PM  
2:00

Exit Time/Date: 4:00 PM

Permit Effective Date: 1/1/91

Permit Expiration Date: 5/31/94

Name(s) of On-Site Representative(s): **STEVE BEHLING**

Title(s): **GENERAL MINE FORMAN**

Phone No(s): 286-2301

Name, Address of Responsible Official: **GRAYSON HEARD  
12755 OLIVE BOULEVARD  
ST LOUIS, MISSOURI 63141**

Title: **SR. VICE-PRESIDENT MINING**

Phone No.: **(314) 275-2305**

Contacted:  Yes  No

## Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit		Flow Measurement		Pretreatment		Operations & Maintenance
S	Records/Reports		Laboratory		Compliance Schedules		Sludge Disposal
S	Facility Site Review	S	Effluent/Receiving Waters		Self-Monitoring Program		Other:

## Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

Mike Herkimer and Harry Campbell of the Division of Water Quality stopped at Consolidation on October 9, 1991. We viewed the records at Consolidation and we inspected some of the ponds. The ponds around the administration building were dry as usual; the only discharge pond was clean and well maintained.

Name(s) and Signature(s) of Inspector(s): <b>Harry Campbell</b> <i>Harry Campbell</i>	Agency/Office/Telephone: <b>Utah Division of Water Quality (801) 538-6146</b>	Date: <b>11-15-91</b>
Signature of Reviewer: <b>Donald A. Hilden</b> <i>Donald A. Hilden</i>	Agency/Office: <b>Utah Division of Water Quality</b>	Date: <b>11/15/91</b>
<b>Regulatory Office Use Only</b>		
Action Taken:	Date:	Compliance Status: <input type="checkbox"/> Noncompliance <input checked="" type="checkbox"/> Compliance



INSPECTION REPORT  
(Continuation sheet)

Page 2 of 2

PERMIT NUMBER: ACT/O15/O15 DATE OF INSPECTION: November 9, 1992

(Comments are Numbered to Correspond with Topics Listed Above)

2. Signs and Markers -

Inspected sign and markers within the permit area. Identification signs and the current information were posted

4b. Diversions -

The diversions around the coal pile before the main entrance, could use maintenance in areas. The lower part of the ditch started to silt in.

4c. Sediment Ponds and Impoundments -

No ponds were discharging at the time of inspection. The vertical pumps to pond #6 is in for repair.

8. Noncoal Waste -

The noncoal waste is stored in a indentation in the hillside. The storage area has started to completely fill up.

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

Copy of this Report:

Mailed to: Consolidated Coal Co., Dee Bray

Mailed to: Bernie Freeman (OSM)

Given to: Joe Helfrich (DOGM)

Filed to: Price Field Office

Date: December 10, 1992

Inspector's Signature and Number: Stephen J. Demczak  
Stephen J. Demczak

#39