STATE OF WYOMING
DEPARTMENT OF ENVIORNMENTAL QUALITY
LAND QUALITY DIVISION
HERSCHLER BUILDING, 122 W. 25TH ST
CHEYENNE, WY 82002
TELEPHONE: (307) 777-7756
COAL OPERATION
NOTICE OF VIOLATION (NOTICE)

N.O.V. No. 100557
Permit No. 331-T6
Docket No. 4176-07

To the Following Permittee or Operator or Licensee:

Name: Arch of Wyoming

Mine: Medicine Bow Mine County: Carbon Telephone: 307-325-6581

Surface: X Underground: Other:

Mailing Address: PO Box 460

Hanna, WY 82327

Date of Inspection: September 10 and 13, 2007

Time of Inspection: from 8:00 AM (a.m. or p.m.) to 4:00 PM (a.m. or p.m.)

Name of Operator (if other than permittee):

Mailing Address:

Under the authority of the Wyoming Environmental Quality Act of 1973 (Act), as amended, the undersigned designated representative of the Director of the Wyoming Department of Environmental Quality (DEQ) has conducted an inspection of the above mine on the above date and has found violation(s) of the Act., the regulations or required permit condition(s) ***listed in the attachment(s)***. This Notice constitutes a separate Notice of Violation for each violation listed.

You must abate each of these violations within the designated abatement time. You are responsible for doing all work in a safe and workmanlike manner.

The undersigned designated representative finds that cessation of mining is____ is not X expressly or in practical effect required by this Notice. For this purpose "mining" means extracting coal from the earth or a waste pile and transporting it within or from the permit area.

This Notice shall remain in effect until it expires as provided on the attached Page 2 or is modified, terminated, or vacated by written notice of a designated representative or the Wyoming Environmental Quality Council. The time for abatement may be extended by a designated representative for up to 90 days from issuance of the notice, if the failure to meet the time previously set was not caused by lack of diligence on the part of the Permittee or Operator or Licensee.

DATE OF SERVICE: 11-20-07 Pamela Rockwell
SIGNATURE OF DESIGNATED REPRESENTATIVE

MANNER OF SERVICE:

PROOF OF SERVICE: PRINTED NAME

PERSON SERVED WITH NOTICE:

CC: CHEYENNE LQD
DISTRICT OFFICE
OSM – CASPER FIELD OFFICE

N.O.V. NO. 100557
PERMIT NO. 331-T6
DOCKET NO. 4176-07
DATE OF SERVICE 11/20/07

IMPORTANT – PLEASE READ CAREFULLY

1. FORMAL REVIEW AND TEMPORARY RELIEF You must apply for review of this Notice by submitting an application for review, within 30 days of this Notice by you or your agent, to:

   Mr. John V. Corra, Director
   Department of Environmental Quality
   Herschler Building
   122 W.25th St.
   Cheyenne, WY 82002

   If you apply for a formal public hearing, you may request temporary relief from this Notice. Your request must be filed at the above address prior to a decision in the hearing. The procedures for obtaining a formal public hearing or temporary relief are contained in W.S. § 35-11-437 (c) (ii) and (e), Land Quality Division (LQD) Coal Rules & Regulations (R&R) Chapter 16, Section 2(m) and DEQ Rules of Practice and Procedures Chapters 1 and 2.

2. EXPEDITED REVIEW If this Notice requires cessation of mining, expressly or in practical effect, as found on page 1, then the procedures of W.S. § 35-11-437 (d) apply. This provision affords an opportunity for an expedited hearing, upon request, if this Notice is affirmed by the director. Please review this finding and inform the designated representative if you agree with it.

3. PENALTIES You may submit information in writing pertaining to the violation(s) covered by this Notice within 15 days of the date it is served on you or your agent. This information will be considered in determining the facts surrounding the violation and the amount of penalty.

   For each violation covered by this Notice, a penalty of up to $5,000.00 may be assessed for each day during which that violation continues.

   If you fail to abate any of the violations within the time set for abatement or for meeting any interim step, you must be assessed a minimum penalty of $750.00 or more for each day during which the violation continues beyond the time set for abatement, and you must be issued a cessation order requiring you to cease surface coal mining operations on the portion relevant to the violation(s).

4. EFFECT ON THE PERMIT In addition, if it is determined that a pattern of violations of any requirement(s) of the Act, the regulations, or permit conditions exists, and that the violations were caused by unwarranted failure to comply or were willful, the permit may be suspended or revoked.

FOR FURTHER INFORMATION, PLEASE CONSULT: W.S. § 35-11-409(c), W.S. § 35-11-437, LQD Coal R&R Chapter 16, Sections 2 and 3 and DEQ Rules of Practice and Procedures Chapters 1 and 2.

Notice of Violation No. 100557
Permit No. 331-T6
Docket No. 4176-07
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Violation No. 1 of 3

Nature of the Violation

Failure to maintain sediment ponds. Failure to design, construct, and/or maintain appropriate sediment control measures. Failure to protect topsoil from wind and water erosion. Failure to repair rills and gullies from precluding and impacting the re-establishment of permanent vegetation cover.

Provision(s) of the LQD Coal R&R, Act, or Permit Violated

LQD Coal R&R Chapter 4, Section 2(f)(vi) and (f)(vii);
W.S. §35-11-415(b)(iii) and LQD Coal R&R Chapter 4, Section 2(c)(v)(C);
LQD Coal R&R Chapter 4, Section 2(c)(vi).

Portion of the Operation to which Notice Applies

29-24 Pit, sediment pond 29-24-3

Remedial Action Required (including interim steps, if any)

1. Salvage topsoil in and adjacent to eroded inlets and channels, and stabilize soil.
2. Submit inlet/channel redesigns to LQD.
3. Complete field repair, regrading, and revegetation of inlets, channels, and associated disturbance.

Time for Abatement (including time for interim steps, if any)

December 21, 2007 (salvage and stabilize topsoil)
March 15, 2008 (submit designs)
May 30, 2008 (complete field repairs and reclamation)

Notice of Violation No. 100557
Permit No. 331-T6
Docket No. 4176-07
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Violation No. 2 of 3

Nature of the Violation

Failure to maintain sediment ponds. Failure to design, construct, and/or maintain appropriate sediment control measures. Failure to protect topsoil from wind and water erosion. Failure to repair rills and gullies from precluding and impacting the re-establishment of permanent vegetation cover.

Provision(s) of the LQD Coal R&R, Act, or Permit Violated

LQD Coal R&R Chapter 4, Section 2(f)(vi) and (f)(vii);

W.S. §35-11-415(b)(iii) and LQD Coal R&R Chapter 4, Section 2(c)(v)(C);

LQD Coal R&R Chapter 4, Section 2(c)(vi).

Portion of the Operation to which Notice Applies

11-24 Pit, sediment pond 11-24-3

Remedial Action Required (including interim steps, if any)

1. Salvage topsoil in and adjacent to eroded inlets and channels, and stabilize soil.
2. Submit inlet/channel redesigns to LQD.
3. Complete field repair, regrading, and revegetation of inlets, channels, and associated disturbance.

Time for Abatement (including time for interim steps, if any)

December 21, 2007 (salvage and stabilize topsoil)

March 15, 2008 (submit designs)

May 30, 2008 (complete field repairs and reclamation)

Notice of Violation No. 100557
Permit No. 331-T6
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Violation No. 3 of 3

Nature of the Violation

Failure to remove topsoil from areas to be affected before affecting these areas.

Provision(s) of the LQD Coal R&R, Act, or Permit Violated

LQD Coal R&R Chapter 4, Section 2(c)(i)(A)

Portion of the Operation to which Notice Applies

11-24 Pit, 1124 Haul Road – newly regraded BLM access road re-route

Remedial Action Required (including interim steps, if any)

1. Reseed and stabilize new section of road slopes, and redistribute windrowed soil on decommissioned section of road, reseed, and stabilize.

Time for Abatement (including time for interim steps, if any)

1. December 21, 2007 (complete reclamation and revegetation).

Compliance Report Medicine Bow Coal Mine, Permit 331-T6
2007 September Annual, October Monthly and November Monthly Inspections
Richard Vincent, LQD Scientist 2, November 20, 2007

The information summarized below outlines the compliance issues and short histories for the Notices of Violations issued on November 20, 2007 (N.O.V. No. 100557, Docket No. 4176-07). Section A lists each pit or permit area location in which a violation occurs. The specific locations are identified under the pit/permit area and include a discussion of the field conditions as observed on each date and the associated violations and summary of the violation language. Section B contains the site specific remedial actions and abatement time schedules. Additional maintenance issues will be presented in each of the individual inspection reports.

The original inspection took place on September 10th and 13th, 2007, during the Annual Inspection. Supplemental information was gathered during the October 18-19, 2007 Inspection and November 2, 2007 Inspection. As noted above, related update information is presented by location.

Based on the Rawlins Municipal Airport NOAA precipitation data, the largest recent rainfall event took place on July 25, 2007, registering 1.14 inches in a 24 hour period, and was classified as approximately a 5 Year-24 Hour event. On September 30, 2007 a precipitation event registered approximately 0.63 inches in a 24 hour period, the largest event between the September and October 2007 Inspection dates. A September 28th event registered approximately 0.22 inches of precipitation and an October 1st event registered approximately 0.24 inches of precipitation. None of these events exceeded the 10 Year-24 Hour event used to design sediment control.

A. List of Locations and Summary of Violations:

29-24 Pit

SP 29-24-3: This pond contains three gully areas, two within the intended inlet channels and one on the southwest corner of the pond. The inlet channels are deeply incised, 1-3 feet into the underlying regraded pit spoil. The north inlet channel extends 100-150 feet into the topsoiled and reseeded pit area. The gully on the southwest corner of the pond is multi-braided and also extends into the topsoiled and reclaimed portions of the pit. The south inlet channel erosion is not as deep nor does it extend into the pit reseeded pit reclamation as far as the north inlet, but it is eroding reclamation. These erosion features are active and it is speculated that these erosional features increased as a result of the July 2007 precipitation events. Soil and spoil have mixed and caused the possible loss of soil suitability. The mixed soil-spoil material has been deposited within SP 29-24-3, and also throughout the downstream reclamation, native areas, and ultimately into SP 29-23-7. (Photo #1)

No changes were noted at this pond during either the October or November 2007 Inspections, although it is possible some additional erosion occurred as a result of September and October precipitation events. (Photo #2)

Violations: Failure to maintain sediment ponds. (LQD R&R Chap. 4, Sec. 2(f)(vi)); Failure to design, construct and/or maintain appropriate sediment control measures. (LQD R&R Chap. 4, Sec. 2(f)(vii)); Failure to protect topsoil from wind and water erosion. (W.S. § 35-11-415(b)(iii) and LQD R&R Chap. 4, Sec. 2(c)(v)(C)); and Failure to repair rills and gullies from precluding and impacting the reestablishment of the permanent vegetation cover. (LQD R&R Chap. 4, Sec. 2(c)(vi)).

11-24 Pit

SP 11-24-3: It appears the erosion at both inlets may have previously undergone repair via filling with large rock (inappropriately sized and possibly inappropriate type material for rip-rap). No information is included in LQD inspection reports to indicate that the LQD inspected this pond in the field between August 2004 and February 2006. In February 2006, the inlet erosion, while evident, was not reviewed up-close due to weather/access and the inspector was still becoming familiar with the operation and permit commitments. This pond was next inspected in August 2006, at which time the inlets were noted as being eroded and down-cutting into spoil (Photo #3). The September 2006 Inspection report noted that the 2-track access contained rills 6-10 inches deep, that were not present during the previous inspection. The October 2006 Inspection noted that SP 11-24-3 inlet erosion was increasing and the channels were not stable (Photos #4 & 5). The December 2006 Inspection notes the erosion is unchanged since 10/2006. The next pond review took place in June 2007 and that inspection report states the inlet erosion is still significant and possibly increasing during the Spring of 2007.

Erosion extends up the reclaimed slopes and reseeded inlet channel of SP 11-24-3. Soil from the reclaimed slopes and the pond inlet drainages have eroded into the pond and mixed with the spoil material eroded from the inlet areas, adjacent reclamation, and excavated pond surfaces. Erosion in the SE inlet is approximately 1-4 feet deep and proceeds 150 linear feet up the reclaimed portion of the drainage channel. The NE inlet erosion is also 1-4 feet deep in parts and proceeds approximately 550 feet up the reclaimed portion of the drainage, tapering to a rill until it intersects a 2-track access route (to the reclaimed knob in NW corner of the 11-24 Pit), at this point the erosion proceeds another 400-500 feet to the northwest along the 2-track and ranges from 6-18 inches deep (into underlying spoil material). This 2-track route has been topsoiled and reseeded, was likely created through continued use to view ponds SP 11-24-4 and 11-24-10. (Photos #6 & 7)

These erosion features are active. The inlet, channel, rill, and gully erosion features increased as a result of the July 2007 precipitation events.

October 19, 2007 Update: The pond and inlets were reviewed by the LQD on October 19, 2007. Since the September 13, 2007 Inspection, Arch had placed approximately 100 linear feet of rock (approximately 6" diameter), with approximately 20 linear feet of topsoil (over the upper 20 feet of rip-rap) that was graded from the adjacent reclaimed slope, into the NE inlet erosion channel. The lower end of the rock repair was located 50 feet above the pond highwater line. Four hundred feet of gully erosion remained above the repair work. Since the repair work was conducted, additional erosion within the

drainage had affected the topsoil placed in the drainage inlet. Some of the topsoil was eroded through to the underlying spoil and displaced topsoil lost (mixed with spoil). No repair work was conducted on SE inlet. Repair for SP 11-24-3 was discussed in phone conversations on 9/17 & 18, 2007. These discussions are outlined in a 9/24/07 memo, sent to Arch under a 9/26/07 cover letter, although the memo did not include much detail. (October Photos #8-11)

No additional work was conducted before the November 2007 Inspection. (Photo 12)

Violations: Failure to maintain sediment ponds. (LQD R&R Chap. 4, Sec. 2(f)(vi)); Failure to design, construct and/or maintain appropriate sediment control measures. (LQD R&R Chap. 4, Sec. 2(f)(vii)); Failure to protect topsoil from wind and water erosion. (W.S. § 35-11-415(b)(iii) and LQD R&R Chap. 4, Sec. 2(c)(v)(C)); and Failure to repair rills and gullies from precluding and impacting the reestablishment of the permanent vegetation cover. (LQD R&R Chap. 4, Sec. 2(c)(vi)).

Newly Regraded BLM Access Road Re-route: During the inspection of the main entrance and access road into and through the permit area with the BLM (9/12/07), the BLM and Arch discussed the rerouting of the portion of the access road in the S½S½ Section 11 which goes to SP 11-24. I informed Steve Skordas, MBCM Mine Manager, that the topsoil from the areas were the road disturbance is planned must be removed and should be used to reclaim the portion of the road that would be removed due to the re-route. On 9/13/07, I observed a blade (road grader) constructing the new road re-route. No soil salvage was observed within the newly bladed road bed or side slopes (road building took place on a previously reclaimed portion of the 11-24 Pit). (Photos #13 & 14)

October 19, 2007 Update: This new road section was reviewed by the LQD on October 19, 2007. A small windrow of topsoil was pushed up the hill between the new road re-route and the old road. No more than one blade width of soil was salvaged, however the lower portion of the road soil was not bladed, and the vegetation growing in the middle of the road indicate that the topsoil was not adequately removed from under the portion of the road that was bladed. The road and underlying spoil were bladed directly onto existing topsoiled reclamation. (Photo #15)

The October 19, 2007 findings were verified during the November 2007 Inspection.

Violations: Failure to remove topsoil from areas to be affected before affecting these areas. (LQD R&R Chap. 4, Sec. 2(c)(i)(A)).

B. Remedial Actions Required and Abatement Schedules

1. 29-24 Pit

   a. SP 29-24-3:

      i. Salvage topsoil that has accumulated in and adjacent to the damaged inlets and associated channels, and that will be disturbed during repair operations. Stabilize salvaged soil material. If necessary and if topsoil is needed, when the pond dries enough to access the material, soil material should be excavated/salvaged from the pond and used to revegetate repair/disturbance areas. Complete the drainage channel soil salvage and stabilization by December 21, 2007;
      ii. Submit the inlet redesigns, including methods to reduce/control erosion, reduce flow velocities, and stabilize the channels and adjacent pit reclamation. Submit the design information to the LQD surface-water hydrologist by March 15, 2008.
      iii. Repair-regrade pond inlets, including areas of overland flow that drain directly to the pond. As part of the repair, install inlet protection measures or modifications (e.g., drop structures, appropriately sized and quantity of rip-rap, approved energy dissipaters, etc.), regrade or change inlet grade and/or channel shape, reapply topsoil as appropriate, and reseed and mulch. Complete by May 30, 2008.

2. 11-24 Pit

   a. SP 11-24-3:

      i. Salvage topsoil that has accumulated in and adjacent to the damaged inlets and associated channels, and that will be disturbed during repair operations. Stabilize salvaged soil material. If necessary and if topsoil is needed, when the pond dries enough to access the material, soil material should be excavated/salvaged from the pond and used to revegetate repair/disturbance areas. Complete the drainage channel soil salvage and stabilization by December 21, 2007;
      ii. Submit the inlet redesigns, including methods to reduce/control erosion, reduce flow velocities, and stabilize the channels and adjacent pit reclamation. Submit the design information to the LQD surface-water hydrologist by March 15, 2008.
      iii. Repair-regrade pond inlets, including areas of overland flow that drain directly to the pond. As part of the repair, install inlet protection measures or modifications (e.g., drop structures, appropriately sized and quantity of rip-rap, approved energy dissipaters, etc.), regrade or change inlet grade and/or channel shape, reapply topsoil as appropriate, and reseed and mulch. Complete by May 30, 2008.

Update: SP 11-24-3 was reviewed by the LQD on October 19, 2007. Repair for SP 11-24-3 was discussed in phone conversations on 9/17 & 18, 2007. Some of these discussions are outlined in a 9/24/07 memo, sent to Arch under a 9/26/07 cover letter.

b. Newly Regraded BLM Access Road Re-route:

i. Reseed and stabilize the road side slopes, since recovery of soil is not practical and probably not possible based on soil depths and mixing with road spoil. Utilize the windrowed topsoil to reclaim the decommissioned section of road disturbance. Complete respreading of soil, reseeding, and stabilization of the road areas by December 21, 2007.

Summary

The Rawlins Municipal Airport NOAA weather data were obtained from: http://www.hprcc.unl.edu/stations/index.php?action=metadata&network_station_id=487533.

Installation of sediment control and stabilization of topsoil (i.e., reduction or elimination of any further loss of topsoil) are serious issues and should be completed prior to the end of 2007 (before winter weather makes this work unachievable). This should reduce any potential further topsoil loss and sedimentation onto native areas as a result of spring snow melt and runoff. Installation of sediment control structures and/or implementation soil stabilization procedures to reduce or eliminate additional loss of the soil resource should be conducted as soon as possible. Recovery of soil from reclaimed inlets, channels, and/or adjacent areas should be conducted to ensure these soil resources are not lost for use in revegetating the repair areas (mixed with material which will diminish its quality or eroded further). If additional soil is needed to conduct adequate revegetation, or to meet permitting or regulatory requirements, then soil from the sediment ponds and possibly from the toe of eroded slopes should be salvaged and redistributed prior to the revegetation of the repair areas. This should be discussed with and approved by the LQD on a case-by-case basis.