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From: Steve Christensen
To: vmiller@archcoal.com
Date: 9/14/2007 2:49 PM
Subject: Dugout Degas Deficiencies (Task ID#2846)
Attachments: #2846_Deficiencies_skc_jae.doc

Outgoing
@1007/0039

CC: Jerriann Ernstsens; Pam Grubaugh-Littig; Priscilla Burton
Vicky,

As we discussed, I've attached the deficiencies/conditions for the degas wells and access road application that were identified by myself and Jerriann.

Priscilla did not have time to write up her deficiencies so I'll include them here. Essentially Priscilla wants the credentials of the soil scientist and a second cross section of the top soil stockpiles. It's my understanding that one cross-section was provided depicting the top soil stockpile. Priscilla would like the perpendicular cross-section thus obtaining two depictions of the piles and their placement on the site.

Let me know if you have any questions or if I can help in any way.

Steve

p.s. The fax machine is not currently operational. Due to the remodeling of our offices, the fax machine has been moved and is not up and running at present. Greg Galecki left a message indicating that he'd faxed me the credentials, but for obvious reasons, I haven't received them. Don't worry about it for today. You can wait until you submit the rest of the information and include the credentials then.

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Dugout Degas Wells G-18, G-31 and Access Road #2846 Deficiencies:

PROBABLE HYDROLOGIC CONSEQUENCES

R645-301-728.300- R645-301-728.300-The Permittee should provide specific discussion as to the flow characteristics (i.e. ephemeral, intermittent or perennial) of both the drainage adjacent to the proposed road alignment, the five drainages intersected by the construction (to be diverted with culverts) as well as Pace Creek. Due to the steepness of the topography and resulting flow velocities and volumes to be encountered at the sites, as well as the close proximity of the proposed road alignment with area drainages, there is clearly a potential for increased sediment loading to the aforementioned drainages including Pace Creek. The Permittee should provide a reference or discussion as to the general flow characteristics of the potentially impacted drainages.

SURFACE WATER MONITORING

R645-301-731- The application does not meet the requirements for surface water monitoring as required by R645-301-731.220. The Permittee should establish a surface water monitoring point on Pace Creek. The monitoring point should be established immediately down gradient from the confluence of the ephemeral drainage located adjacent to the proposed access road and Pace Creek. The relevant portions of the MRP (including Table 7-5, Plate 7-1 and text) will need to be updated to reflect this additional monitoring point.

PLANS AND DRAWINGS

R645-301-521.170, R645-301-527.200 and R645-301-527.210- The application does not meet the Plans and Drawings requirements for road systems. The Permittee should update Figure 1, Typical Road Cross Section, located in Attachment 5-4 to reflect the 1-2% slope/canting of the road towards the uphill side of the road as depicted in Figure 3, Road Runoff Culvert Plan, in Attachment 7-1 and discussed on page 7-7 of the application. The originally submitted Figure 1 in Attachment 5-4, Typical Road Cross Section, does not reflect this change in the road prism geometry. In addition, Figure 3 of Attachment 7-1 should provide clarification on the silt fence design drawing that the fence will be trenched a minimum of 6" into the ground.

The Permittee should provide a commitment to notify the Division in the event of a failure of the road and/or drill pads. The commitment should be included in the discussion of the maintenance plan on page 5-10 of the application.

DIVERSIONS

R645-301-732.300- The application does not meet the Diversions: General requirements as outlined in the R645-State of Utah Coal Mining Rules. Page 7-10 of the application states, "No surface or ground water will be diverted as a result of this project". Page 7-12 states, "No stream channel diversions are planned at the well sites." However, the proposed drainage system involves the installation of 5 culverts at ephemeral drainages that intersect the proposed access road. Culverts are considered 'diversions' as outlined in the regulations. The Permittee should revise the aforementioned sections of the application to make it clear to the reader that the 5 ephemeral streams will be diverted with the installation of the culverts.

PERMIT APPLICATION FORMAT AND CONTENTS

R645-301-121.200, The TES table (pg. 3-11/12) headings do not correctly describe the associated list. The Permittee must correct the headings of the tables to clearly reflect the intent of the accompanying lists. • The Permittee must correct the references for the NSO and northern goshawk exclusionary periods (pg. 3-6, 3-13).

VEGETATION AND WILDLIFE RESOURCES

R645-301-321.100, The Permittee must characterize (as previously requested) the approximate percentage of previously disturbed area and the percentage of area that has experienced natural recovery for the degas wells and AMV road. The September 4th submittal breaks the road into portions (A, B, and C) and explains that portion B has been previously disturbed. The Permittee does not clarify whether A and C have been previously disturbed. The Division would have to maintain that these stretches of road have never been previously disturbed. The Permittee must clarify as requested. Note: These requirements are particularly important for this project because they would provide qualitative insight as to the reclamation potential for the road that would be approximately 1.36 miles and disturb approximately 14 acres of land. This road is planned to be constructed in a very steep area that would require extreme protective measure during construction and operations as well as during reclamation.

R645-301-322.200, The statement in the MRP (e.g., pg. 3-7) does not support the findings from the 2005 report, which is more accurate than the 2007 report. The Permittee must change the statement in the MRP to reflect the more accurate description of bat presence, diversity, and habitat. The Permittee is welcome to call Jerriann Ernstsen for more information on the bats and their habitat in that area.

Note: The Division did not require a bat survey for the proposed 2007 degas projects. The Division will rely on the 2005 report instead of the 2007 report for making decisions for the 2007 and possible future amendments. One questionable part of the

2007 report was that the sampling locations for the survey were too far to the north of the proposed disturbances. The sampling locations would have been better positioned 1) along Pace Creek, 2) at the disturbed sites, or 3) two along Pace Creek and two along the upper jeep trail. Other questionable parts of the report include 1) the choice to only survey for two nights and 2) stating that there is limited habitat given the results of the 2005 report and the field observations.