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Outgoing gk
C/007/0038

From: David Darby
To: Dennis (WC) 4737 Ware
Date: 4/23/2007 5:08 PM
Subject: RE: High TSS water in Crandall Canyon #2 Shaft

Dennis, Just looking at those numbers, you would be putting 4 inches of water over the site in a 24 hour period. That is probably equivalent to a 5,000 year-24 hr storm event. It is not practical. The whole slope would wash away.

>>> "Ware, Dennis (WC) 4737" <dware@foundationcoal.com> 4/23/2007 4:37 PM >>>
Pete thanks for providing everyone with a heads up.

As Pete relayed to you, after further discussion with experts it has been determined that mixing flocculants with the high TSS (97,000 mg/l) water in the bottom of the shaft would likely not produce the results we need to discharge the water (TSS < 70).

As Pete said, other alternatives being considered include setting up a sprinkler system and sprinkling the high TSS water over the reclaimed lands to the West of the #2 shaft.

The exact quantity of water that would need to be sprinkled it is between 220,000 and 330,000 gallons. This water can be sprinkled at the rate of about 230 gallons per minute which would require 17 to 24 hours of pumping and sprinkling time to complete. This quantity of solids remaining on the land after water evaporation would be from 105 to 160 cubic yards. A sprinkler line would we set up to the West of the #2 shaft reaching a distance of about 1500 feet. The sprinklers would have a reach of 40 feet therefore; an area of 120,000 sq feet would be used to spread the water. This amounts to somewhere between 1.83 and 2.75 gallons per sq foot.

The question that I'm now directing to the Division of Oil Gas and Mining is, what information does the Division need to review before approval can be given for this method of water disposal.

I will be happy to meet with the Division, either in person or by phone, at the Division earliest convenience to discuss this matter further.

Thanks,
Dennis

-----Original Message-----
From: Pete Hess [mailto:PETEHESS@utah.gov]
Sent: Monday, April 23, 2007 3:15 PM
To: David Darby; Joe Helfrich; Pam Grubaugh-Littig; Priscilla Burton; Wayne Hedberg
Cc: Jeff_McKenzie@blm.gov; Stan_Perkes@blm.gov; Steve_Rigby@blm.gov; Jeffrey Studenka
Subject: High TSS water in Crandall Canyon #2 Shaft

I have just received a call from Dennis.
He has conferred with the manufacturer representative of Chitosan (the MSDS should be in SL) who is now telling him that the level of suspended solids in the water at the base of the water column is more of a sludge, and is too concentrated for the flocculant to work.

Dennis' head scratching with Nielson construction is to propose to run pressurized lines over the reclaimed Crandall Canyon surface area with sprinklers to allow the suspended solids to settle into the gouged areas and evaporate the water.

This is definately a new concept for me....does anyone have any thoughts ?

I told him to put in ink and get the proposal to us. Looks like the Chitosan is a NO GO.

From: David Darby
To: Dennis Ware
Date: 4/24/2007 4:16 PM
Subject: Suggested items to consider for submitting information

CC: Joe Helfrich; Wayne Hedberg

As per our conversation today. This information is to put your thoughts together, not directing you to submit a plan. As stated in the meeting, other people have to be contacted to discuss best way to proceed with this matter.

Items to consider for a preliminary plan for the Crandall Canyon Shaft (not inclusive)

Description of events
- Emergency plan, open hole, window for contractor (name of company)

Description of mitigation activities
- Pond proposal
  - Location description
  - Size and depth
  - Volume it will contain
  - Volume it will receive
  - Freeboard below surface and soft soil
  - UPDES permit
  - How long to construct and how long it will function.
- Sample analysis of water (already have) and sediment (check with Priscilla)
- Sediment control measures (berms, silt fences)
- Map
  - Identify pond location
  - Alternate sediment control location
- Reclamation Proposal
  - Approximate original contour