

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 1, 2006

TO: Internal File

THRU: Wayne Hedberg, Permit Supervisor, Task Manager *DWH*
Dana Dean, P.E., Team Lead *D*

FROM: Peter H. Hess, Environmental Scientist/Engineering *PHH by an*

RE: Proposed Expansion Of Disturbed Area, Savage Services Corporation, Savage Coal Terminal, C/007/0022, Task ID #2613

SUMMARY:

The Permittee, through Blackhawk Engineering Company, is proposing to disturb an additional 6.61 acres within the Savage Coal Terminal permit area (160.00 total permit acres). This will increase the disturbance to 128.89 acres; the increase amounts to 5.13%.

Savage Industries has negotiated with Canyon Fuel Company, LLC / Dugout Canyon Mine to wash coal which is incapable of meeting contract specifications in its natural state. This requires restarting the CV Spur wash plant, which was operated by the Beaver Creek Coal Company until 1984.

In the idle period from 1984 until present, the Permittee reclaimed the static thickener which removed product from the fine coal cleaning circuit, and allowed the decant water to be returned to the cleaning process. Since the plant is to be restarted, a new separation facility is needed to replace the dismantled thickener. The Task ID #2524 application's purpose is to permit an area in the undisturbed NW corner of the Coal Terminal property for the purpose of constructing four settling ponds where minus 28-mesh coal will settle out and allow effluent water to be decanted for return to the coal cleaning circuit.

The Division has identified this application as Task ID #2524 for the purpose of tracking and review.

Deficiencies were generated by the Division relative to the initial application on July 7, 2006. The Permittee submitted additional information in an informal response on August 8, 2006.

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On August 23, 2006, the Permittee forwarded an official response to the Division relative to the deficiencies generated on July 7, 2006.

This technical memo will address the adequacy of the response received on August 23, 2006.

TECHNICAL ANALYSIS:

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

Savage Services Corporation has contracted with Canyon Fuel Company, LLC / Dugout Canyon Mine to wash coal which was placed into storage on the Dugout Mine refuse pile area. In order to wash coal, Savage has proposed to start up the CV Spur wash plant facility, which was last operated by Beaver Creek Coal Company in 1984. During the period from 1984 to present, the clean coal thickener was dismantled. In order for Savage to now wash coal, they must permit and construct a facility to de-water minus 28-mesh coal, such that the effluent water can be returned to the plant wash circuit for re-utilization. The four fine coal-settling ponds being proposed are intended to take the place of the dismantled clean coal thickener.

Page 3-33, section 3.3.1, Plant Processing System gives a brief description of the coal washing process from the plant feed phase to refuse removal and washing via the coarse and fine coal plant circuitry. The minus 28-mesh fine coal / water slurry mixture will be pumped to the fine coal settling ponds which are being proposed. Only two cells, which are connected in series, will be utilized at a time. The other cells will be kept idle (for drying, cleaning etc.) until they are needed (i.e., the two cells being used reach maximum fines capacity).

The Task ID #2524 application contains dimensions of the settling impoundments being proposed.

The Task ID #2613 application contains a description of the construction methods to be used to construct the ponds (See page 3-35a of the Task ID #2613 response). Dozers will be used to develop the incisements, and front-end loaders will pick up and transport the cut material to the areas where it will be placed for the construction of the impounding berms or the subsoil

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storage area. "The ponds will be constructed under the supervision of a registered professional engineer. The pond construction will be monitored and inspected by the P.E. during construction, and certified upon completion, to ensure compliance with performance standards. The ponds will be inspected by a qualified individual at least quarterly, and certified with the other impoundments annually. The ponds will be checked and maintained on a regular basis to ensure they operate in a safe, efficient manner. Maintenance may include cleaning, drainage control and erosion control", (See page 3-35a of the Task ID #2613 submittal).

"It should be noted that the ponds will be constructed in such a manner as to prevent inflow from site runoff, and will not be part of the sedimentation and drainage control system for the site. The ponds will be incised; however, they will also be surrounded by a raised berm to prevent runoff inflow, as shown on Figure 3-13", (See Task ID #2613 submittal, page 3-34, section 3.3.2, Washed Coal System).

The Permittee has depicted the proposed topsoil and subsoil storage areas on revised surface facilities map, Plate 3-2. Plate 3-2 was submitted as part of the Task ID #2613 response, received August 23, 2006. The application meets the requirements of **R645-301-521.165**.

The volumes of each soil horizon to be removed should be calculated and submitted with the proposed construction method. A berm having a minimum height of 24 inches is depicted on FIGURE 3-13. However, there are no calculations presented as to...

- a) The volume of subsoil to be removed.
- b) The volume of subsoil to be used to construct the 24-inch berms about the cells.
- c) The volume of subsoil that will have to be stored in other areas. These subsoil storage areas must be permitted as ASCA's. Accordingly, a designed berm must be submitted to surround, contain and treat precipitation from a 10-year, 24-hour design event.

The Permittee's qualified representative has indicated that there will not be any mechanical or chemical flocculation methods utilized to enhance settling rates in the four fine coal settling basins (verbal communication with Dan Guy, P.E. on July 10, 2006).

The application contains a description of the method that will be implemented to clean the settling basins when they reach maximum capacity (See page 3-35 of the Task ID #2613 application). The ponds will be operated in series, two per series. "When one set of ponds become full of settled material, the valves will be switched to use the adjacent set of ponds, while the full set is allowed to dry. Once the ponds are dry enough to clean (this will be determined by visual analysis/dry time evaluation), it is proposed to enter the pond with a dozer on the upper end where there is a 3:1 slope. The dozer will push the material either back up to the bank where it can be picked up with a front-end loader, or towards the edge of the pond

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where it can be extracted with a backhoe and placed in a truck. All pond cleaning operations will be conducted to minimize damage to the ponds and to minimize damage to the environment”.

The minus 28 mesh mucked material will be placed in an area designated for drying located NW of the four settling basins, (See Plate 7-2, SCT Hydrology Map, Task ID #2613 submittal). “The material removed from the ponds will be windrowed on the northwest side of the ponds for drying as shown on Plate 3-2. Once the material is dry enough to handle, it will be taken by a front-end loader to the 2 X 0 clean coal pile west of the plant”.

The Permittee anticipates that, (based upon the fact that “the minus ¼ inch material is not washed, the only minus 28 mesh material settled in the ponds will be the residual material adhering to the larger sized washed product”,(See page 3-35, paragraph 3)), “the settling ponds will very likely not need cleaning more than once a year”.

The Task ID #2613 submittal contains a description of the proposed handling process for the coal processing waste that will be generated by the washing of the outside Companies product. “...under the new scenario, the refuse (coal processing waste) will be stored only temporarily on the east and / or west side of the refuse pile in an area where refuse has been removed. See Plate 3-2. The coal to be washed under this restart plan is owned by another company, and the refuse generated by the washing cycle will be disposed of in their refuse pile which is presently under application to be expanded. This refuse will only be stored at Savage Coal Terminal until such time as the expanded refuse site for this company is approved, which is expected to be no more than one year maximum...the one year maximum time period allows for possible delays or other unforeseen changes in the refuse pile expansion”. “At that time, all of the refuse generated by the restart of the washing cycle will be taken to the company’s refuse site for permanent disposal”.

The Permittee has provided an updated Plate 3-2, SCT Facility Map, which depicts the area within the SCT permit area where the Company refuse will be temporarily stored (up to one year, maximum). After one year, the coal processing waste will be returned to the company waste rock facility for final deposition.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements of the R645 Coal Mining Rules.

EXISTING STRUCTURES

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

An "existing structure" is defined as a "structure or facility used in connection with or to facilitate coal mining and reclamation operations **for which construction began prior to January 21, 1981.**

The preparation plant at the Savage Coal Terminal was built between October of 1977 and December of 1978, (See page 3-1a, section 3.2.1.2, Facilities Construction Dates of the MRP). Thus, this facility is classified as an existing structure. As noted elsewhere within this document, the plant was idled in 1984, and has not seen coal-washing activity since that time.

The minimum regulatory requirements of this section of the R645 Coal Mining Rules require that the Permittee must "provide a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation." "The compliance plan shall include:

- 1) Design specifications for the modification or reconstruction of the structure to meet the permanent program design and performance standards.
- 2) A construction schedule that shows dates for beginning and completing interim steps and final reconstruction.
- 3) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the permanent program performance standards are met.
- 4) A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction."

The application submitted as Task ID #2613 contains FIGURE 3-13, page 3-36a, which depicts the dimensions of the four settling basins that are being proposed. The raw coal feed rate into the preparation plant is stated as 450 TPH. This is identical to the feed rate that was established for the design of the plant and utilized from 1979 through 1984.

Each settling pond will have dimensions of 200 feet by 100 feet, and will have a depth of eight feet from the pond bottom to the discharge elevation of the decant stand pipe when constructed. All four basins will be incised. A berm having a minimum height of 24-inches (See FIGURE 3-13, page 3-36a, SECTION B-B') will surround each basin to provide overflow protection. Minus 28-mesh material from the wash plant fine coal circuit will be circulated to one catch basin, which will be connected to a second basin by an inter-cell spillway (See section C-C', Inter-Cell Spillway, FIGURE 3-13). When the elevation of the settled fines material reaches the maximum level, the slurry mix will self transfer through the inter-cell spillway to the

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in-series secondary cell. When the second cell reaches maximum fine level, the slurry line will be transferred to the other two, in series, settling ponds via manual valving procedures.

The Permittee has provided new information (See page 3-34, Task ID #2613 submittal) that is relative to the volume of coal slurry projected to be pumped to the four proposed settling basins. "It is estimated that the minus 28 mesh coal slurry to be settled in the ponds will be pumped to the ponds at a rate of approximately 25 GPM, with a projected maximum amount of minus 28 mesh material of 1 tone per hour."

Based upon estimates of the amount of coal processing waste which will be generated in one year, (200,000 tons, see page 3-3a of the Task ID #2613 submittal), it is the Permittee's intent to operate the coal washing facility 236 days per year (or 5 days per week / 2 shift per day operation).

The Task ID #2613 application does not contain a design for the 1500 feet of two-inch PVC intake line that is depicted on FIGURE 3-13, nor for the six-inch PVC return line. It is not known if PVC pipe has adequate strength to sustain the pressures necessary to pump coal slurry the required distance. The Task ID #2613 application states on page 3-33, section 3.3.1 Plant Processing System that the only material to be pumped to the settling basins will be "residual minus 28 mesh material" from the plus ¼ inch wash process. Thus, the Division must assume that the percentage of solids reporting to the settling ponds will be low, and a moderately pressurized system will be capable of handling the material transfer.

The Division has determined that, based upon information provided by the Permittee, that the proposed settling ponds have an adequate storage volume to safely decant the process water generated by the coal washing process, and retain the -28 mesh coal material generated by the plant.

FIGURE 3-13, SAVAGE COAL TERMINAL SETTLING POND, does not depict a machinery access road into the cells for the purpose of cleaning them. The dike separating the four proposed cells is depicted as having a top width of fifteen to twenty feet. This is probably wide enough for a track hoe of moderate size to clean fines from the outside edge of the incisement. The Permittee has stated on page 3-35 "it is proposed that a dozer will access the ponds...where there is a 3:1 slope". This is the SW end of the settling basin facility.

The application does not contain information relative to a maximum slurry level that would indicate when the Permittee must de-activate the pond for drying and cleaning purposes. "The ponds will be checked and maintained on a regular basis to ensure they operate in a safe efficient manner".

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The Permittee has included a discussion relative to inspection requirements for the settling ponds on page 3-35a, section 3.3.2 Washed Coal System. "The ponds will be inspected by a qualified individual at least quarterly, and certified with other impoundments annually".

The Permittee has included a discussion relative to the capacity of the settling ponds, and if this capacity meets the requirements of R645-301-513.200, 533.600, and 30 CFR 77.216(a). Since the basin capacity does not meet the requirements of 30 CFR 77.216(a), there is no need for MSHA to review the design of the ponds.

The Permittee has included a statement relative to the additional coal storage acreages that may impact air quality in the area. The current approval order has enough buffer to include the additional acreage which these piles comprise, and the proposed locations are well inside the permit / disturbed area boundary; there is no air quality issue.

The Task ID #2613 application depicts a two-foot high berm (minimum height) around the perimeter of the four settling basins to prevent overtopping of slurry. These dikes are shown to have a fifteen-foot top width, (See Figure 3-13). Figure 3-13 is P.E. certified by Mr. Dan Guy, Utah registered professional engineer.

Plate number 3-2, SCT Facility Map shows that the west pond is approximately eighty feet from the relocated undisturbed diversion UD-1 and 230 feet from the permit / disturbed area boundary.

The Permittee has described provisions for monitoring the structure during and after modification or reconstruction to ensure that the permanent program performance standards are met.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements of the R645 Coal Mining Rules.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

The construction of the four proposed fine coal settling basins will not require the relocation or use of public roads. All construction activities will occur inside the permit area / disturbed area of the Savage Coal Terminal.

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Findings:

The requirements of this section of the R645 Coal Mining Rules are not applicable to this permitting action.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

Analysis:

The Task ID #2613 application discusses where the minus 28-mesh material will be placed in order for it to dry, during the settling pond cleanout process.

The material will be placed in an area adjacent to the ponds; the area is depicted on a surface facilities map (Plate 3-2, SCT Facility Map) that meets the requirements of R645-301-521.164. Plate 3-2 is P.E. certified by a Utah registered professional engineer.

The Permittee has included a description of the coal fines drying process, which includes information relative to the drying locations. These additional acreages have been accounted for in the latest Utah DEQ / DAQ Air Quality Approval Order.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements of the R645 Coal Mining Rules.

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The washing of coal from the Dugout Canyon Mine will affect the coal recovery from that operation. High ash coal that probably had minimum marketability at the time of its deposition at the Dugout Canyon waste rock site will now be washed to improve its quality and marketability.

Findings:

Coal recovery is not relevant to the Savage Coal Terminal permit area. The Coal Terminal is a processing / storage and loading facility. Coal recovery is relevant to the extraction of mineral from the natural deposit.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Classification System

The access to the four proposed settling ponds will require new construction. The road will be used to haul minus 28-mesh material from the settling ponds back to the main coal stockpile areas. Thus, the road is a primary road.

Plans and Drawings

The Task ID #2613 application contains information relative to the access route necessary for the construction, operation or maintenance of the four proposed settling basins. The cleaning of the settling basins will not require hauling coal on roads other than PR-13.

Page 3-24, section 3.2.5.1, Roads, describes the new road (PR-13) that is being proposed to access the proposed settling ponds. PR-13 has been classified as a "primary" haul road. The road will have an approximate length of 400 feet, with a travel width of sixteen feet. The road will have an average gradient of 2.22%, and a gravel surface. This primary road will be used to haul minus 28 mesh coal from the drying area located NW of the settling ponds to one of the clean coal piles for blending into other sized product for shipment.

PR-13 is depicted on both Plates 3-2 and 3-4. A Typical Cross Section for a *Primary Access Road* having a sixteen-foot roadway width is shown on Plate 3-4. 3H:1V outslopes are shown on each side of the travel surface, as are paralleling drainage ditches.

Page 3-24c (paragraph e at page bottom) contains the necessary commitment to install proper drainage controls for PR-13.

R645-301-534.300 through 534.340; Requirements for Primary Roads

- a. 301-358; Protection of Fish, Wildlife and Related Environmental Values

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PR-13 will be located, constructed and maintained in such a manner as to protect fish, wildlife, and related environmental values by avoiding wetlands, using non-acid and non-toxic materials, providing adequate drainage and employing low practical speed limits on the site.

b. 301-527.100; Road classification

PR-13 has been classified as a primary road on page 3-24 of the Task ID #2613 submittal.

c. 301-527.230; Road Maintenance Plan

The Task ID #2613 application contains a road maintenance plan as well as a commitment to repair all roads within the site in the event a catastrophic event occurs, (See page 3-24 as well as 3-24c).

d. 534.100; Road Use / Construction / Design

This section has been previously addressed.

e. 534.200; Grade Limits / Width / Surfacing Material

This section has been previously addressed.

f. 542.600; Reclamation Plan for Roads

Section 3.5.3.2 Removal of Roads / Railroads, page 3-54b discusses the reclamation plan for PR-13 (the primary road accessing the proposed settling ponds). “The road will be left in place until the settling ponds and their associated drainage controls have been reclaimed. At that time, the roads will be removed and reclaimed in the same manner as discussed under Section 3.5.4, Backfilling and Grading Plans. There are no plans to leave any roads at this property.”

A discussion as to how or where the gravel road surfacing material for PR-13 will be disposed of is contained on Page 3-54a, section 3.5.3, Final Abandonment. “Non-salvageable materials (concrete, gravel, etc) will be placed to the extent possible in existing impoundment excavations and low areas as fill prior to final grading and stored on the berms of sedimentation ponds. Remaining material will be taken off-site to an approved landfill,

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(see Approval Letter, Figure 3-12).” The MRP contains an old letter (Figure 3-12) from the Carbon County, Utah Commissioners dated September 13, 1983 which states that the County has no objections to the Permittee using the County landfill for disposal of “other non-coal wastes as needed”.

The gravel road surfacing material is an inert material and presents no concern to the Division relative to the formation of acid or toxic potential. Disposal in the State permitted Carbon County landfill seems to be a logical solution.

The Permittee could also dispose of the gravel in the coal processing waste facility if it has a need to do so. This must be done prior to topsoiling and seeding activities.

- g. 301-762; Commitment to Reclaim Upon Determination of No Further Use

See section 3.5.3.2, Removal of Roads / Railroads, page 3-54b of the Task ID #2613 submittal.

- h. 534.310; be located on the most stable available surfaces;

Please refer to page 3-24c of the Task ID #2613 submittal, b., on the lower half of the page.

- i. 534.320; be surfaced with rock, crushed gravel, asphalt or other material approved by the Division as being sufficiently durable for the anticipated volume of traffic, and the weight and speed of vehicles using the road;

Please refer to page 3-24b, PR-13 of the Task ID #2613 application.

- j. 534.330; be routinely maintained;

Please refer to page 3-24c of the Task ID #2613 application, section d., lower half of this page.

- k. 534.340; have drainage controls that are designed, installed, and maintained to sustain vertical soil pressure, the passive resistance of the foundation, and the weight of the vehicles using the road.

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Please refer to page 3-24c of the Task ID #2613 application, section e., lower half of this page.

Primary Road Certification

R645-301-512.200; Plans and Engineering Designs; a design for a primary road requires a certification by a qualified registered professional engineer. The designs and drawings relative to the PR-13 road, (as contained in the Task ID #2613 application) have been certified by Mr. Guy, a Utah registered professional engineer. This requirement has been met.

R645-301-512.250; Primary Roads; the professional engineer will certify the design and construction...of primary roads as meeting the requirements of R645-301-534.200 and R645-301-742.420. This requirement has been met.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements for this section of the R645 Coal Mining Rules.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Coal Mine Waste

The Task ID #2613 application states on Page 3-3, section 3.2.3.3, Coal Processing Waste Disposal that "the washing cycle will generate refuse as it did previously;...the refuse will be stored only temporarily on the east and / or west side of the refuse pile in an area where refuse has been removed. See Plate 3-3." The Task ID #2613 application states on page 3-3a that "plant projections estimate that approximately 53-tons per hour of refuse" (will be generated), based upon the wash plant feed of 450 tons per hour.

The Permittee has provided a description of how the coal mine waste generated by the coal washing process will be handled.

Refuse Piles

The Permittee's description of the coal waste handling process is contained on page 3-3a of the Task ID #2613 application. Coal processing waste generated by the washing of the Company product will be "temporarily" stored for a maximum of up to one year in the temporary waste rock area designated on Plate 3-2, SCT Facility Map. The Permittee estimates that a maximum of 200,000 tons of coal processing waste will be generated annually.

The refuse material will be temporarily stored (i.e., "placed and compacted, and otherwise managed and inspected) as per the approved refuse handling procedures in the MRP. The temporary pile will be placed within the existing refuse pile ditch as shown on Plate 3-2. The pile will also be sloped to drain to the ditch and constructed to prevent water retention on the pile."

Refuse which must be temporarily stored within the SCT refuse facility for more than thirty days will be sampled at intervals not to exceed 5,000 tons and analyzed for acid-toxic potential. The samples will be run according to guidelines established in the latest Division soil guidelines, Tables 4 and 8. Sample results will be submitted to the Division on a quarterly basis, and included with the Annual report for the Savage Coal Terminal.

After the temporary storage period has ended, the coal processing waste material will be returned to the Company waste rock disposal facility for final deposition. The material will be placed, leveled and compacted in accordance with requirements established within the Company's mining and reclamation plan.

Impounding Structures

The four settling basins being proposed are for minus 28-mesh coal fines slurry, and are therefore, not refuse settling impoundments. This section is not applicable.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements for this section of the R645 Coal Mining Rules.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

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Analysis:

The Permittee has provided a discussion relative to pond capacities for the four proposed settling basins, and whether these pond capacities meet MSHA requirements established within 30 CFR 77.216(a). The four settling ponds will comprise a total storage capacity of 11.11 acre feet, and therefore do not meet the 20-acre feet storage capacity criteria established by 30 CFR 77.216(a).

The Division recommends that the Permittee notify the U.S. Department of Labor / Mine Safety and Health Administration / District 9 Manager relative to the Task ID #2613 proposal to construct the four settling impoundments.

The R645 Coal Mining Rules do not require an identification sign at impoundments. However, R645-301-513, and 513.200 require that ponds meeting the requirements of 30 CFR 77.216(a) be signed for proper identification purposes.

Findings:

The Division recommends that the Permittee notify the Mine Safety and Health Administration relative to this proposal to construct four fine coal settling basins at the Savage Coal Terminal in order to become informed of any pertinent compliance requirements related to same prior to initiation of construction activities.

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:

Affected Area Maps

This amendment will not affect the currently approved affected area maps for the Savage Coal Terminal permit area.

Mining Facilities Maps

The Task ID #2613 application contains the following Plates:

- 1) Plate 3-2, SCT Facility Map
- 2) Plate 3-4, SCT Road Map
- 3) Plate 3-7, SCT Post Mining Topography

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- 4) Plate 7-1, SCT Water Monitoring Location Map
- 5) Plate 7-2, SCT Hydrology Map (surface drainage control map)

The four proposed settling basins being permitted through the Task ID #2613 application are depicted in the NW corner of the Savage Coal Terminal permit area (See Plate 3-2).

All submitted Plates are P.E. certified by Mr. Dan Guy, Utah registered professional engineer.

Certification Requirements

All submitted Plates are P.E. certified by Mr. Dan Guy, Utah registered professional engineer.

Findings:

The Plates submitted as part of the Task ID #2613 application meet the minimum regulatory requirements of this section of the R645 Coal Mining Rules.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The Task ID #2613 application contains a brief description as to how the settling basins will be reclaimed. A reference to the approved MRP relative to the approved reclamation plan is also included. Please refer to page 3-54a(1), section 3.5.3.1, Removal of Impoundments and Diversions.

Section 3.5.5, Revegetation Plan, page 3-56a is where the approved plan for the Savage Coal Terminal is found.

Section 3.5.3, Final Abandonment, page 3-54a of the currently approved MRP discusses the following items relative to final reclamation:

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- 1) Surface structures and facilities.
- 2) Monitoring wells.
- 3) Salvageable materials.
- 4) Non-salvageable materials.
- 5) Placement of non-coal waste (concrete, gravel, etc.).
- 6) Disposal of material costs.

Section 3.5.3.1, Removal of Impoundments and Diversions, page 3-54a-1, in the currently approved MRP discusses sedimentation ponds and diversions, and includes the four fine coal-settling ponds being permitted via this application.

Findings:

The Task ID #2613 application meets the minimum regulatory requirements of this section of the R645 Coal Mining Rules.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

As noted above, the Permittee has submitted a reclamation plan for the four proposed settling ponds. As the SCT permit area consists of very flat ground, the meeting of AOC requirements will not be difficult.

Findings:

The application meets the minimum regulatory requirements of this section of the R645 Coal Mining Rules.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

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The four proposed settling ponds will have a depth of approximately eight feet. The backfilling of these areas should be a relatively straightforward operation, assuming that the backfill material is in close proximity to the incisions.

The Coal Terminal permit area is very flat, and regrading to approximate original contour should be easily accomplished.

Findings:

The application meets the minimum regulatory requirements of the R645 Coal Mining Rules listed under Approximate Original Contour Restoration.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

Reclamation of the PR-13 primary road has been previously discussed within the Task ID #2613 application as well as this technical memo.

Findings:

The application meets the minimum regulatory requirements of this section.

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

The Task ID #2613 application does not contain any backfilling and grading maps.

TECHNICAL MEMO

Final Surface Configuration Maps

The Task ID #2613 application contains Plate 3-7, SCT Post Mining Topography that is a final surface configuration map for the permit area. Drainage features are depicted as well as areas where upland and lowland seed mixes are to be utilized.

Certification Requirements.

Plate 3-7, SCT Post Mining Topography is P.E. certified by Mr. Dan Guy, Utah registered professional engineer.

Findings:

The Task ID #2613 application meets the minimum requirements of this section of the R645 Coal Mining Rules.

COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A MINE

Regulatory Reference: 30 CFR Sec. 785.21, 827; R645-302-260, et seq.

Analysis:

This section of the R645 Coal Mining Rules has been previously addressed by the Division via the permit findings document. That finding is considered to meet the requirements of R645-302-260, et seq.

Findings:

The Savage Coal Terminal MRP meets the requirements of this section of the R645 Coal Mining Rules.

RECOMMENDATIONS:

The Task ID #2613 application meets the minimum regulatory requirements of the R645 Coal Mining Rules and same should be approved.