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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

February 22, 2017

Garth Nielsen, General Manager
Savage Services Corporation
901 W. Legacy Center Way
Midvale, Utah 84047

Subject: Completion of Midterm Review, Task #5314, Savage Services Corporation, Savage Coal Terminal, C/007/0022

Dear Mr. Nielsen:

On December 1, 2016, Savage Services Corporation was informed that the Division of Oil, Gas and Mining (the Division) had commenced a midterm permit review for the Savage Coal Terminal.

The midterm review has now been completed and will now be closed; however, the Division has identified deficiencies that must be addressed. The deficiencies have been included with this letter (See Attached). The name of the author for each of the respective deficiencies has been provided.

Your response to these deficiencies will need to be submitted as an amendment to your MRP and will be processed as a separate task. Please submit the required amendment with the accompanying C1 and C2 forms by no later than March 20, 2017.

If you have any questions regarding these requirements or the Midterm Review process, please don't hesitate to call me at 801-538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs
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UTAH DNR
OIL, GAS & MINING

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Technical Analysis and Findings

Utah Coal Regulatory Program

February 22, 2017

PID:	**C0070022**
TaskID:	**5314**
Mine Name:	**SAVAGE COAL TERMINAL**
Title:	**MIDTERM PERMIT REVIEW**

General Contents

Identification of Interest

Analysis:

The midterm permit review does not meet the State of Utah R645 requirements for R645-301-112 Ownership and Control.

The Division performed a crosscheck with the Applicant/Violator System and the Ownership and Control information provided in the Savage Coal Terminal MRP. Discrepancies were found. The following requires updating:

Appendix 1-6 Designation of Authorized Representatives
Chapter 1, page 1, the current resident agent, address and phone number of Savage Services Corporation
Chapter 1, pages 2 - 5, the Officers and Directors information

Deficiencies Details:

The midterm permit review does not meet the State of Utah R645 requirements for R645-301-112 Ownership and Control.

The Division performed a crosscheck with the Applicant/Violator System and the Ownership and Control information provided in the Savage Coal Terminal MRP. Discrepancies were found. The following requires updating:

Appendix 1-6 Designation of Authorized Representatives
Chapter 1, page 1, the current resident agent, address and phone number of Savage Services Corporation
Chapter 1, pages 2 - 5, the Officers and Directors information

ssteab

Violation Information

Analysis:

The midterm permit review meets the State of Utah R645 requirements for R645-300-132 Violation Information.

A report was generated in the Applicant/Violator System (AVS) on December 6, 2016. The report did not generate any cessation orders, delinquent civil penalties, bond forfeitures, delinquent abandoned mine reclamation fees, or unabated violations of the Act.

ssteab

Legal Description

Analysis:

The MRP describes and identifies the lands (on a map) subject to coal mining over the life of the operation, including the size, sequence, and timing of the mining anticipated and permit boundaries. The description of the land is located in Appendix 1-3 which is Fee land owned by the Bowie Refined Coal, LLC as shown in property Warranty Deed Exhibit A. This description was mapped by the Division using ESRI COGO tools and matches the property boundary located on Plates 5-1, 5-2, and 7-2.

lreinhart

Maps and Plans

Analysis:

The results of the midterm review indicate that the State of Utah R645 requirements for compliance with the terms and conditions of the permit (R645-300-143) are being met.

Permittee initiated plan changes approved subsequent to permit renewal have been appropriately incorporated into the MRP. The MRP does not include any variances. However the permit does include one special permit condition under attachment A, Savage Services Corporation will submit water quality data for the Savage Terminal in an electronic format through the Electronic Data Input web site. This is done quarterly and is current.

jhelfric

Environmental Resource Information

Maps Existing Structures and Facilities

Analysis:

The Division initiated a mid-term review of the Savage Coal Terminal reclamation plan (Task ID #5314) on December 1, 2016 in accordance with R645-303-211. This Technical Memorandum presents the findings of the Midterm Permit review for the Savage Coal Terminal related to engineering and bonding, including:
â€¢ Evaluate the reclamation bond to ensure that coverage adequately addresses permit changes approved subsequent to permit approval or renewal, and to ensure that the bond amount is appropriately escalated in current-year dollars.
â€¢ Evaluate the permit for compliance with variances or special permit conditions related to engineering and bonding.

The current MRP meets the State of Utah R645 requirements for Existing Structures and Facilities Maps.

The current MRP meets the requirements of R645-301-521.120 which require a map clearly showing the location of all building in and within a 1000 ft of the proposed permit area, along with identifying the current use of said building. Plate 5-1 shows the surface disturbances at the time of the original application in 1995. The site was originally disturbed in 1975 by Utah Power & Light for coal loading operations due to its central location to the contributing coal mines.

cparker

Maps Existing Surface Configuration

Analysis:

The current MRP meets the State of Utah R645 requirements for Existing Surface Configuration Maps.

The current MRP meets the requirements of R645-301-521.150 as it includes a drawing or plate that clearly calls out the existing surface. Plate 5-1 shows the surface disturbances at the time of the original application in 1995. The site was originally disturbed in 1975 by Utah Power & Light for coal loading operations due to its central location to the contributing coal mines.

cparker

Maps Surface and Subsurface Manmade Features

Analysis:

The current MRP meets the State of Utah R645 requirements for preexisting Surface and Subsurface Manmade features maps.

The current MRP meets the requirements of R645-301-521.122 as it includes a drawing or plate that clearly calls out the existing surface and subsurface man made features within, passing through, or passing over the permit area. R645-301-521.120 through-521.125 requires maps to clearly show existing surface and subsurface facilities. Plate 5-1 shows the historic location of the surface facilities associated with the coal loadout terminal.

cparker

Operation Plan

Mining Operations and Facilities

Analysis:

The current MRP meets all the State of Utah R645 requirements for Mining Operations and Facilities.

The current MRP meets the requirements of R645-301-523, -526, and 528 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life. Savage coal terminal began operations in 1995 and included an expansion of the office building. The expansion amendment is contained within Appendix 5-3. The site contains a storage site for stockpiled coal and disposal of coal processing refuse, all of which are documented on Plate 5-2. Plate 5-3 shows detailed planned cross section of the refuse disposal areas. Plate 5-2 and 54 show the location of all primary and ancillary roads throughout the permit area.

cparker

Existing Structures

Analysis:

The current MRP meets the State of Utah R645 requirements for Existing Structures.

The current MRP meets the requirements of R645-301-526 by providing historic information to include the discussion of the existing buildings in Volume 1 Chapter 5 page 2. The narrative detailing the various existing structures construction start and end dates. The majority of the structures were completed in 1978. Plate 5-2 details all the building documented in the above listed table. Plate 5-1 shows the surface disturbances at the time of the original application in 1995. The site was originally disturbed in 1975 by Utah Power & Light for coal loading operations due to its central location to the contributing coal mines.

cparker

Relocation or Use of Public Roads

Analysis:

The current MRP meets the State of Utah R645 requirements for the Relocation or Use of Public Roads.

The current MRP meets the requirements of R645-301-521.133 due to information detailing measure to be used such as a general mining method that will be employed under or within 100 ft of public roads to protect interest of the public.

cparker

Coal Recovery

Analysis:

The current MRP meets the State of Utah R645 requirements for Coal Recovery.

The current MRP meets the requirements of R645-301-522 due to a discussion of the measures to be used to maximize the use and conservation of the coal resources. The Permit Area contains the raw coal plant wash and loading terminal. Contract coal from various customers is received in double trailer bottom dump highway trucks where the coal is received, crushed and screened as necessary. The coal washed at site has the coal fines removed either through a static thickener or settling ponds. The ponds are constructed in such a manner as to prevent inform from site runoff. The site has the capability and approval for shipping up to 10.0 million tons per year.

cparker

Road Systems Classification

Analysis:

The current MRP meets the State of Utah R645 requirements for Road Systems and Other Transportation Facilities.

The current MRP meets the requirements of R645-301-527.100 by classify each road as primary or ancillary. Volume 1 Chapter 5 pages 4 through 6 contain a detailed list of all primary roads within the Permit Area. PR-1 through PR-13. All ancillary roads, AR-1 through AR-4 are also detailed on page 6. All roads will be maintained throughout their life to meet the design standards stated within the MRP Chapter 5.

cparker

Road System Plans and Drawings

Analysis:

The current MRP meets the State of Utah R645 requirements for Transportation Plans and Drawings.

The current MRP meets the requirements of R645-301-534.100 by submitting plans and drawing for each road to be maintained within the permit area. The plan view location of all primary and ancillary roads can be seen on Plate 5-2 and 5-4 within the MRP.

cparker

Road System Performance Standards

Analysis:

The current MRP meets the State of Utah R645 requirements for Transportation Plans and Drawings.

The current MRP meets the requirements of R645-301-534.100 by submitting plans and drawing for each road to be maintained within the permit area. The plan view location of all primary and ancillary roads can be seen on Plate 5-2 and 5-4 within the MRP.

cparker

Road System Certification

Analysis:

The current MRP meets the State of Utah R645 requirements for Primary Road Certification

The current MRP meets the requirements of R645-301-521.170 by submitting plans and drawing for each road to be prepared by or under the direction of and certified by a qualified registered professional engineer. The plan view location of all primary roads can be seen on Plate 5-2 and 5-4 within the MRP. All roads will be maintained throughout their life to meet the design standards stated within the MRP Chapter 5.

cparker

Road System Other Transportation Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements for Other Transportation Facilities.

The current MRP meets the requirements of R645-301-521.170 by submitting plans and drawing for each road, conveyor, and rail system to be used within the proposed permit area. Volume 1 Chapter 5 page 8 begins the detailed description of the railroad associated with the area, seen on Plate 5-5, and the 18 conveyors associated with the loadout, seen on Figure 5-7. Dimensions are given in the narrative and all grades are shown on Figure 5-7. All conveyors will be used throughout the operational life of the loadout

cparker

Spoil Waste Disposals of Noncoal Mine Wastes

Analysis:

The current MRP meets the State of Utah R645 requirements for Spoil and Waste Materials.

The current MRP meets the minimum standards or R645-301-528.330 due to no changes in the MRP text noncoal mine waste disposal located in the current MRP in Volume 1 Chapter 5 pages 3 and 11. All used oil at the site was collected and hauled to an EPA approved reclaimed facility. There are two wastewater disposal facilities within the Permit area, seen on Plate 5-2, as septic tank drain field systems approved by the regulation authority of Utah Health Department.

cparker

Spoil Waste Coal Mine Waste

Analysis:

The current MRP meets the State of Utah R645 requirements for Coal Mine Waste.

The current MRP meets the minimum standards or R645-301-528.320 due to no changes in the MRP text. The Coal Mine waste analyses are provided in Appendices 5-1 and 5-2. The waste is not considered toxic but will still be reclaimed with four feet of cover. The waste will be spread as soon as practical and as thinly as possible to allow for a moisture of 10% to 12% for effective compaction.

cparker

Spoil Waste Refuse Piles

Analysis:

The results of the midterm review indicate that a portion or portions of the mining and reclamation plan (MRP) do not meet the State of Utah R645 requirements for Review of Permits and Permit changes, R645-302-212 and 220.

Figure 5-1 and the text on page 36 of Volume 1 chapter 5, Section 536 should be updated to reflect the current status of the refuse pile.

Deficiencies Details:

The results of the midterm review indicate that a portion or portions of the mining and reclamation plan (MRP) do not meet the State of Utah R645 requirements for Review of Permits and Permit changes, R645-302-212 and 220.

Figure 5-1 and the text on page 36 of Volume 1 chapter 5, Section 536 should be updated to reflect the current status of the refuse pile.

jhelfric

Hydrologic Sediment Control Measures

Analysis:

The amendment meets the State of Utah R645 requirements for analysis and findings of best technology currently available (BTCA) for item C of the mid-term review.

A technical site visit was conducted on January 11th of 2017 to document the status and effectiveness of operational practices undertaken on the disturbed and permit areas to minimize the contribution of acid or toxic materials to surface or ground water and prevent water pollution. They are described as follows:

The best technology currently available (BTCA) for the loadout facility consists of a series of ditches, berms, culverts and sediment ponds (Plate 7-3) which collect, channel, divert and treat the disturbed area runoff within the permit area (Plate 7-2). The drainage patterns are encompassed in two triangle shaped parcels that form a square where the runoff flows down gradient towards the Price river through the ditches and culverts from the Southwest corner to Northeast corner of the permit area and into a series of sediment ponds. Runoff from these ponds is recirculated into the wash plant water system and used periodically for dust suppression. These sediment control structures have withstood two back to back 100 year precipitation events within the past six months. The current BTCA is appropriate for this facility.

The sediment control structures (Plate 7-2), groundwater protection measures (Plate 7-1) are described in Volume 2, Chapter 7, pages 86 through 91. Additional sediment control measures are described on page 98 of the MRP.

BTCA SITE SPECIFIC AREAS

According to the information in the MRP, Chapter 7, Page 118 there are also 7 small areas located within the permit area which do not drain into the sedimentation ponds. Six of these areas have been designated as Best Technology Currently Available or B.T.C.A. Areas, and are shown on Plates 7-2 and 1-1 of this M.R.P. In addition, the buried pipeline area is designated a Small Area Exemption as shown on Plate 1-1 and detailed in Appendix 7-1.

The surface and ground water monitoring parameters for this facility are being met as evidenced by the data provided in the Division's water monitoring database.

jhelfric

Support Facilites and Utility Installations

Analysis:

The current MRP meets the State of Utah R645 requirements for Support Facilities and Utility Installations.

The current MRP meets the requirements of R645-301-521.180 and -526 the require the description, plans, and drawing for each support facility that was constructed, used, and maintained within the permit area in Volume 1 Chapter 5. The narrative details the various stages of equipment and structure associated with either the coal loading or washing.

cparker

Signs and Markers

Analysis:

The current MRP meets the State of Utah R645 requirements for Signs and Markers.

The current MRP meets the requirements of R645-301-521.200 by the general discussion of signs including waring, stream buffer and perimeter signs. Volume 1 Chapter 5 page 15 details the various signs to be employed at the site to meet R645-301 regulations.

cparker

Maps Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements Mining Facilities Maps.

The current MRP meets the requirements of R645-301-521.120 through-521.125 which require maps to clearly show existing surface and subsurface facilities. The historic location of all support mining facilities is shown on Plate 5-2 and 5-6

cparker

Reclamation Plan

General Requirements

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Activities.

The requirements of R645-301-540 are met within the current MRP as there is no change to the existing MRP reclamation details in volume 1 chapter 5. All surface features will be removed at the time of completion as shown on Plate 5-6. This also includes the river pump and pipeline system. A detail schedule of the various stages of reclamation can be seen in Chapter 5 Section 542.100.

cparker

Approximate Original Contour Restoration

Analysis:

The current MRP meets the State of Utah R645 requirements for Approximate Original Contour Restoration.

The current MRP meets the requirements R645-301-512.200 ,-553.110 through -553.150, and -302-270 due to general grading plans that restores approximate original contour (AOC).

AOC as defined by R645-301-553.100 through -553.150 is achieved when the final grade closely resembles the general surface configuration of the land prior to mining activities and provides a subsurface foundation for vegetative cover capable of stabilizing the surface from erosion. The final reclamation grading plan for surface disturbances associated with Savage coal terminal is shown on Pate 5-6.

cparker

Backfill and Grading General

Analysis:

The current MRP meets the State of Utah R645 requirements for Backfill and Grading.

The current MRP meets the general requirements of R645-301-553 by detailing a general backfill and grading plan that details how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use. The final reclamation grading plan for surface disturbances associated with the Savage coal terminal are detailed in Chapter 5 Section 542.200 pg 49 as well as on Plate 5-6 and 5-3.

cparker

Topsoil and Subsoil

Analysis:

Analysis:
The Mining and Reclamation Plan does not meet the requirements of soil redistribution.

R645-301-244,Mass Balance Table 2-9 states that the disturbed area is 132.5 acres. Of that acreage, 77.2 acres is pre-law and 55.3 acres is post law.

The pre and post law areas are illustrated on Plate 5-1. Pre law areas include a portion of the truck dumps (which were expanded post-law) and the processing facilities and ponds. Post law areas include the refuse and coal stockpile areas.

Table 2-9 states that there is 62,314 CY of soil in stockpiles. The location of the topsoil storage is shown on Plate 5-6.

The MRP Section 224 and Section 542.200 discuss soil redistribution plans. Pre-law areas will be graded, coal will be removed and the soil will be ripped (Section 542.200) or deep chiseled (Section 231.300). The pre-law in-place soil will be sampled and the upper twelve inches will be amended (Section 224, p. 23) in a plan to be worked out 60 days prior to reclamation in consultation with the Division (Section 231.200). Actual reclaimability of the in place soils will be based on results from the test plots (Section 224, p. 23). Table 2-5 has sample analysis for one disturbed land sample. In the surface twelve inches this sample is sandy loam with near neutral pH, Electrical conductivity of 10.2, SAR of 5, 0 phosphorus, 39% nitrogen (likely due to coal). This describes a saline soil, but not a sodic soil. At final reclamation, it is recommended that the graded pre-law surface is sampled for pH, EC, SAR, and plant available nitrogen, potassium and phosphorus.

Post-law areas shown on Plate 5-1 will be graded except the refuse site (Section 541.100) and six inches of topsoil applied followed by discing or tilling (Section 542.200). Redistributed topsoil will be sampled on a basis of 1 composite sample/ac. Samples will be located on a grid of the reclaimed area. Section 243 refers to Section 540 for a description of the soil nutrients and soil amendments to be applied. No description was found in Section 540 through 560.

On 3h:1v slopes or less, 1 ton /ac hay mulch will be applied and then disced or tilled in (Section 542.200). On steeper areas (truck dumps and refuse pile) 2,000 lbs/ac hydromulch will be used with tackifier. Hay will be crimped in on the side slopes of the refuse piles.

Plate 5-6 is referenced for post-mining topography and Plate 5-3 is referenced for refuse pile cross-sections (final slopes). However, there are no cross-sections shown on Plate 5-3. At the present time, the refuse pile does not have the contours shown on Plate 5-6, since the refuse pile was shipped as product. The Division assumes that the refuse pile could be re-established in the future. A commitment should be added to the MRP Section R645-301-542.200 to revise Plate 5-6 Reclamation Contours and Plate 5-3 prior to reclamation.

Deficiencies Details:

The Mining and Reclamation Plan does not meet the requirements of soil redistribution. Please provide the following in accordance with,

R645-301-121.200, Section 224 states that reclamation of the in place soils will be based on results from the test plots (Section 224, p. 23). Please summarize the results and reference the location of the test plot results in Section 224, p. 23,for review.

R645-301-R645-301-244, Describe grading of the truck dump ramps and potential refuse pile to achieve 3h:1v side slopes in Section 541.100.

R645-301-243, Update Section 540, page 50 to include a statement of what pre-law disturbed and post-law soil topsoil parameters will be analyzed to determine soil nutrients and amendments to be applied. The Division recommends the following analysis: texture, pH, EC, SAR, and plant available nitrogen, potassium and phosphorus.

R645-301-121.100, Provide a commitment in Section 542.200 to revise Plate 5-6 Reclamation Contours and Plate 5-3 cross-sections and locations prior to reclamation to show existing contours. [Plate 5-3 is referenced for refuse pile cross-sections. However, there are no cross-sections shown on Plate 5-3. At the present time, the refuse pile does not have the contours shown on Plate 5-6, since the refuse pile was shipped as product.]

pburton

Road System Reclamation

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation of Roads.

The requirements of R645-301-534 are met within the current MRP as there is no change to the existing MRP reclamation of all roads throughout the permitted area.

cparker

Revegetation Standards for Success

Analysis:

The amendment meets the State of Utah R645 requirements for analysis and findings of Vegetative Reference Areas in accordance with R645-303-356 for item H of the mid-term reviewl.

The Vegetative Reference Areas were evaluated on December 13. Volume1, Chapter three, Pages 6, 7 and 8 include a description of the 2 reference areas for the loadout facility. They include upland and lowland shadscale vegetative communities as shown to scale on plate 3-1 of the MRP. The boundary for the lowland area is marked with steel posts and sinage and the upland area is fenced with sinage. The upland area is located in the Southwest corner of the 132.5 acre permit area and the lowland area is located in the Northwest corner of the permit area. An evaluation of the reference areas will be conducted in the Summer of 2017 (June-September) by the NRCS and or representatives from the Division and Savage Industries to determine if the reference areas continue to represent the success standards necessary to meet the postmining landuse of Wildlife (Song bird and Small mammal) habitat.

jhelfric

Cessation of Operations

Analysis:

The current MRP meets the State of Utah R645 requirements for Cessation of Operations

The requirements of R645-301-515 and -541 are met within the current MRP as there is no change to the existing MRP plan of communication with the appropriate parties in the event of the cessation of operations and final reclamation.

cparker

Maps Reclamation BackFilling and Grading

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps.

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of backfilling and grading areas or volumes. Plate 5-6 shows the grading plan of the main facilities and Plate 5-3 shows the profiles of the waste pile.

cparker

Maps Reclamation Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Facilities Maps

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of no facilities that will remain post mining operations. Plate 5-6 shows the grading plan of the main facilities and Plate 5-3 shows the profiles of the waste pile.

cparker

Maps Reclamation Final Surface Configuration

Analysis:

The current MRP meets the State of Utah R645 requirements for Final Surface Configuration Maps.

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of the estimated final surface configuration back to AOC. Plate 5-6 shows the grading plan of the main facilities and Plate 5-3 shows the profiles of the waste pile

cparker

Bonding Determination of Amount

Analysis:

The midterm review of the MRP does not meet the State of Utah R645 requirements for Determination of Bond Amount because no updated midterm bonding estimates have been provided by the Permittee.

The Division requires an evaluation of the reclamation cost estimate during each midterm permit review. This cost estimate is then escalated for five years or until the next midterm review. In accordance with the requirements of R645-303-211, R645-301-830, and -301-830.140, it is the Permittees responsibility to provide detailed estimated cost sheets to support the reclamation cost estimate.

Deficiencies Details:

The midterm review of the amendment to update the MRP does not meet the minimum requirements of R645-301-830.140 due to missing information as that the Permittee has not submitted updated bond information in regards to the midterm review of the MRP.

The Permittee must update the unit cost data used in the 2011 Midterm Permit Review reclamation cost estimate to 2016

unit costs using the 2016 R.S. Means Heavy Construction Cost Data manual. All computation sheets for demolition, earthwork and re-vegetation must be updated and submitted to the Division so the Division can determine the required bond amount needed through 2021.

In accordance with R645-301-830.410, Division Technical Directive 007, and Office of Surface Mining Handbook for Calculation of Reclamation Bond Amounts the Permittee may utilize third party contractors for cost references when a general cost references does not adequately describe the required reclamation task. In the event the Permittee utilizes local third party contractors cost estimates within the reclamation bond amount additional information must be submitted with the application including a minimum of three individual quotes for the work. References may include items such as a letter or email transcript but must include all relevant contact information from the contractor so that the Division may contact said contractor to verify unit cost is valid in the event the Division was the hiring personal. References must be submitted at the time the reclamation bond amount is submitted to the Division. The Permittee will submit detailed cost references for all contracted costs of reclamation.

In accordance with R645-301-830.410, Division Technical Directive 007, and Office of Surface Mining Handbook for Calculation of Reclamation Bond Amounts the Permittee must utilize bare unit costs when using standardized cost reference manuals such as R.S. Means Heavy Construction. The Division applies an indirect cost of 26.8% that covers overhead and profit calculations in the indirect line items of the total sheet. The Permittee will utilize the bare unit cost when utilizing R.S. Means Heavy Construction cost reference.

The Savage Coal Terminal review, in accordance with R645-303-211, was commenced on December 1, 2016 by the Division. In accordance with R645-301-830.410, Division Technical Directive 007, and Office of Surface Mining Handbook for Calculation of Reclamation Bond Amounts the Permittee must utilize the dollar year for which the midterm was commenced. The escalation to the next midterm must also be amended to calculate the new escalation to the next midterm review, five years.

The total reclamation cost for the Savage Coal Terminal (sum of the direct and indirect costs) must be escalated from 2016 to 2021 (5 years) using an escalation factor of .7%.

This escalated cost is rounded to the nearest $ 1,000 to determine the amount of required bond which must be posted with the Division by the Permittee.

bwiser