0004

May 30, 2003

Randy Scott, Plant Manager
Sunnyside Cogeneration Association
P.O. Box 159
Sunnyside, Utah 84539

Re: Star Point Refuse Mine, Sunnyside Cogeneration Association, Star Point Refuse Mine, C/007/042-PM02A-1, Outgoing File

Dear Mr. Scott:

The above-referenced amendment has been reviewed. There are deficiencies that must be adequately addressed prior to approval. A copy of our Technical Analysis is enclosed for your information.

The list of deficiencies accompanying the Technical Analysis summarizes the information that is needed in the application for Division approval under the R645-301 regulations. These deficiencies will not alter the bond estimate that was provided to Brian Burnett on Friday, May 23, 2003.

In order for us to continue to process your application, please respond to these deficiencies by June 29, 2003. If you have any questions, please call me at (801) 538-5268 or Priscilla Burton at (801) 538-5288.

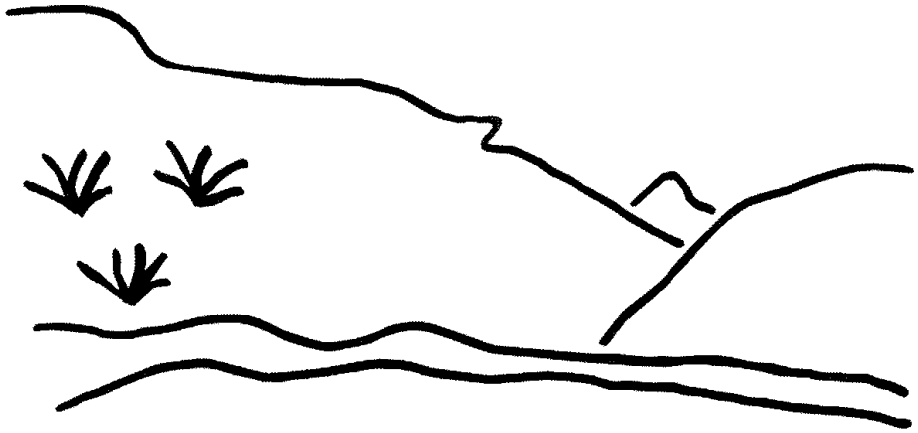
Sincerely,

/S/

Pamela Grubaugh-Littig
Permit Supervisor

an
Enclosure
cc: Price Field Office
O:\007042.SWF\FINAL\DEF02A-1.DOC

State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Star Point Waste Fuel Mine
New Permit
007/042-PM02A-1
Technical Analysis
May 30, 2003

TABLE OF CONTENTS

INTRODUCTION **3**
GENERAL CONTENTS **9**
IDENTIFICATION OF INTERESTS 9
VIOLATION INFORMATION 10
RIGHT OF ENTRY 10
LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS 11
PERMIT TERM 11
PUBLIC NOTICE AND COMMENT 12
FILING FEE 12
PERMIT APPLICATION FORMAT AND CONTENTS 12
REPORTING OF TECHNICAL DATA 13
MAPS AND PLANS 14
ENVIRONMENTAL RESOURCE INFORMATION **15**
GENERAL 15
PERMIT AREA 15
HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION 16
CLIMATOLOGICAL RESOURCE INFORMATION 17
VEGETATION RESOURCE INFORMATION 18
FISH AND WILDLIFE RESOURCE INFORMATION 19
SOILS RESOURCE INFORMATION 20
LAND-USE RESOURCE INFORMATION 21
ALLUVIAL VALLEY FLOORS 21
Alluvial Valley Floor Determination 22
PRIME FARMLAND 22
GEOLOGIC RESOURCE INFORMATION 23
HYDROLOGIC RESOURCE INFORMATION 23
Sampling and Analysis 24
Sampling and Analysis 24
Baseline Cumulative Impact Area Information 24
Probable Hydrologic Consequences Determination 24
Ground-water Information 25
Surface-Water Information 25
MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION 26
Affected Area Boundary Maps 26
Archeological Site Maps 26
Coal Resource and Geologic Information Maps 26
Cultural Resource Maps 27
Existing Structures and Facilities Maps 27
Existing Surface Configuration Maps 27
Mine Workings Maps 27
Monitoring and Sampling Location Maps 28
Permit Area Boundary Maps 28
Subsurface Water Resource Maps 28
Surface and Subsurface Manmade Features Maps 28

TABLE OF CONTENTS

Surface and Subsurface Ownership Maps 28
Surface Water Resource Maps 28
Vegetation Reference Area Maps 29
Well Maps 29
OPERATION PLAN 31
MINING OPERATIONS AND FACILITIES 31
EXISTING STRUCTURES: 31
PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES 32
RELOCATION OR USE OF PUBLIC ROADS 33
AIR POLLUTION CONTROL PLAN 33
COAL RECOVERY 34
SUBSIDENCE CONTROL PLAN 34
Subsidence Control Plan 35
SLIDES AND OTHER DAMAGE 35
FISH AND WILDLIFE INFORMATION 35
Protection and Enhancement Plan 35
Endangered and Threatened Species 36
Bald and Golden Eagles 37
Wetlands and Habitats of Unusually High Value for Fish and Wildlife 37
TOPSOIL AND SUBSOIL 37
Topsoil Removal and Storage 37
VEGETATION 38
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES 38
Road Classification System 39
Plans and Drawings 39
Performance Standards 41
Primary Road Certification 41
The information provided in the PAP is adequate to meet the minimum requirements of the road and other transportation facilities regulations. 41
SPOIL AND WASTE MATERIALS 41
Disposal Of Noncoal Mine Wastes 41
Coal Mine Waste 41
Refuse Piles 42
Impounding Structures 43
Return of Coal Processing Waste to Abandoned Underground Workings 43
Excess Spoil: 43
HYDROLOGIC INFORMATION 44
General 44
Casing and sealing of wells 44
Groundwater Monitoring 44
Acid- and Toxic-Forming Materials and Underground Development Waste 45
Discharges Into An Underground Mine 45
Gravity Discharges From Underground Mines 45
Water-Quality Standards And Effluent Limitations 45

TABLE OF CONTENTS

Sediment Control Measures 46
Siltation Structures 46
Impoundments 47
SUPPORT FACILITIES AND UTILITY INSTALLATIONS 47
SIGNS AND MARKERS 48
USE OF EXPLOSIVES 49
General Requirements 49
MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS 49
Affected Area Maps 49
Mining Facilities Maps 49
Mine Workings Maps 49
Certification Requirements 50
RECLAMATION PLAN 51
GENERAL REQUIREMENTS 51
POSTMINING LAND USES 51
PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES 52
APPROXIMATE ORIGINAL CONTOUR RESTORATION 53
BACKFILLING AND GRADING 54
General 54
Previously Mined Areas 57
Backfilling and Grading On Steep Slopes 57
Special Provisions for Steep Slope Mining 57
MINE OPENINGS 58
TOPSOIL AND SUBSOIL 58
Redistribution 58
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES 59
Reclamation 59
Retention 60
HYDROLOGIC INFORMATION 60
General 60
CONTEMPORANEOUS RECLAMATION 63
General 63
REVEGETATION 63
Revegetation: General Requirements 63
Revegetation: Timing 64
Revegetation: Mulching and Other Soil Stabilizing Practices 64
Revegetation: Standards For Success 64
STABILIZATION OF SURFACE AREAS 67
CESSATION OF OPERATIONS 67
MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS 68
Bonded Area Map 68
Reclamation Backfilling And Grading Maps 68
Final Surface Configuration Maps 68
Reclamation Surface And Subsurface Manmade Features Maps 69

TABLE OF CONTENTS

Reclamation Treatments Maps 69
Certification Requirements. 69
BONDING AND INSURANCE REQUIREMENTS 69
Form of Bond 69
Determination of Bond Amount 69
Terms and Conditions for Liability Insurance 69
CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA) 71

TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977 (SMCRA). When a Permit Application Package or an amendment to the Mining and Reclamation Plan is received, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of the Division's analysis, the Permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at http://ogm.utah.gov/coal

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings, which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference, which describes the minimum requirements. A summary of the deficiencies is provided at the beginning of the document. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

INTRODUCTION

The Division received the permit application for the Star Point Waste Fuel Mine on April 1, 2002. On June 24, 2002, the application for the Star Point Refuse Mine was determined to be Administratively Complete, although acquisition of the subsoil pile for the purpose of reclamation was requested. On September 23, 2002, the Division received the requested modification to the application. Public notification, through the Sun Advocate, occurred from October 24, 2002 to November 14, 2002. Response to the Division's initial technical review was received on March 6, 2003 with supplemental information arriving on May 16, 2003, May 23, 2003 and May 29, 2003.

Sunnyside Cogeneration Associates is applying for a permit to mine the refuse remaining after the closure of the Star Point Mine. SCA acquired the coal refuse and associated subsoil cover material from Plateau mining Corporation (PMC). [Cypress Plateau Mining Corporation's (CPMC) name was changed to Plateau Mining Corporation on June 30, 1999 and all references to CPMC in the application infer PMC.] SCA plans to utilize the coal refuse material as a fuel source in its fluidized-bed combustion boiler at the power cogeneration plant at Sunnyside, Utah.

Construction of the refuse pile began in 1970 with wet processing of Run of Mine (R.O.M.) coal from the Wattis, Third and Hiawatha seams from the Star Point Mine operations. Material was continually added to the pile until mine closure in 1997. The quality of the refuse from the mine site changed over time as improvements were made to the processing of the R.O.M. coal. The most deeply buried refuse has greater btu/lb and is more fine that the material above (Exhibit 624.210a, Reserve Assessment of Star Point Coal Refuse Site). Approximately 192,000 cu yds of waste from the Price River Coal AML project (Panther Mine) was transferred to this refuse pile in 1988 (personal communication with MaryAnn Wright, Louis Amodt and Chris Rhorer, May 15, 2003).

Two reclamation scenarios are proposed for the disturbed area:

(1) the Final Reclamation Scenario will be followed if the refuse pile is completely re-mined.
(2) the Bonding Scenario Reclamation describes reclamation of the site if only a portion of the refuse is utilized for fuel.

The Application indicates that subsoil salvaged from the expansion of the refuse pile in 1982 (area shown on Map 222.100b) will be redistributed over the Star Point Waste Fuel Mine site at reclamation. In the Bonding Scenario, the entire 235,000 cu yds of salvaged subsoil will be returned to the disturbed area.

Under the Final Reclamation scenario, Map 542.200g outlines that 2.7 acres will receive 4 feet of substitute topsoil cover and 59 acres of the former refuse pile will receive the remainder of the subsoil pile with a minimum coverage of twelve inches (Section 242), for a total of up to 235,500 cu yds of substitute topsoil removed (Map 542.200g) from the subsoil storage pile.

Under the Final Reclamation scenario, there will be no subsoil left stockpiled at final reclamation (personal communication with Scott Carlson, May 23, 2003), but this is not reflected in the narrative in Section 542.700, page 500-32.

Less substitute topsoil cover is not acceptable for the Final Reclamation Scenario for the following reasons:

- The entire soil profile was removed from the site (down to eighty four inches) as reported on page 6 of Appendix 8-3 of Exhibit 222. The type of material beneath the salvaged soil was not indicated in the Star Point Mine Plan, but would likely be bedrock or strongly alkaline (pH 9.0) layers like the C2ca horizon or strongly cemented layers (Appendix 8-3 of Exhibit 222).
- Soil exposed after 50 years of burial beneath 100 feet of refuse is likely to be severely compacted. The plan to rip to a depth of twenty-four inches and cover with twelve inches of subsoil will provide a rooting depth of 12 to 36 inches. Such a shallow soil interfacing with a compacted zone beneath will limit root penetration and curtail plant growth, affecting diversity.
- Leachates from the refuse may have penetrated into the buried soil foundation making unsuitable growing conditions within the rooting zone described above.
- Regulation 645-301-242.100 and the Performance Standards of R645-301-250 require the Division to ensure that the topsoil material removed and stockpiled is replaced is redistributed over the disturbed area.

Consequently, the Division has required that all the 235, 000 cu yds of substitute topsoil are returned to the disturbed area under the Final Reclamation Scenario. The narrative in Section 542.700 must reflect this requirement of Regulation R645-301-242.100 *et seq*.

The plan indicates in Exhibit 112.500a that the acreage of refuse piles A, B, and C and the Disposal Area is 81.67 acres. The Division calculates that the stockpiled subsoil (235,000 cu yds) will cover the **entire** disturbed area to a depth of about twenty inches or the stockpiled subsoil will cover the 59 acres of former refuse pile and the 2.7 acres of coal mine waste discard to a depth of twenty nine inches.

Under both scenarios unusuable refuse will be permanently placed in the former slurry ponds north of the refuse pile. The discarded refuse will be compacted in lifts of four feet into a 4h:1v slope. The Information supplied with the application indicates that the refuse samples taken in 1987 had acid forming potential. The refuse was sampled again in 2001, but not for

acid/toxic characteristics. The plan calls for monitoring of the refuse placed in the settling basins for acid and toxic characteristics just prior to final reclamation, so that toxic waste or waste with the potential for acid-formation or with elevated Boron or Selenium can be covered with four feet of substitute topsoil from the subsoil pile.

The payment of AML fees or an exemption of payment is covered by R645-300-147 and R645-301-112.230. Exhibit 112.230a documents the 1994 correspondence from the Office of Surface Mining concerning the exemption from AML fees for the material obtained from the Sunnyside Mine Wash Plant. This letter seems to pave the way for such an exemption for the Starpoint Mine Refuse Pile, but correspondence from OSM is required for this new source of coal waste for the SCA plant.

The Applicant has estimated a bonding cost of $1,254,000. Changes to the itemized bonding spreadsheet will not result from this review.

SUMMARY OF DEFICIENCIES

The Technical analysis of the proposed permit changes cannot be completed at this time. Additional information is requested of the permittee to address deficiencies in the proposal. A summary of deficiencies is provided below. Additional comments and concerns may also be found within the analysis and findings made in this Draft Technical Analysis. Upon finalization of this review, any deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the division, result in denial of the proposed permit changes, or may result in other executive or enforcement action and deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

Regulations

R645-301-112.230, R645-300-147, The application must describe payment of AML fees or contain an exemption from payment from the Office of Surface Mining. 10

R645-301-412.200, Comments from the Bureau of Land Management concerning the implementation of the proposed post-mining land use are required as part of the application. 52

R645-301-553 and R645-301-242.100, The application should indicate that all 235,000 cu yds of substitute topsoil will be moved to the mined out site in both the bonding and final reclamation scenarios. (Statements to the contrary appear in Section 548.700, page 500-32). 57

SUMMARY OF DEFICIENCIES

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

The Applicant, Sunnyside Cogeneration Associates (SCA), is a Utah joint venture between Sunnyside Holdings I, Inc. and Sunnyside II, L.P. Information regarding these entities and other parent or controlling corporations is described in Section 112.100 of the MRP.

Information regarding the Applicant, resident agent, abandoned mine reclamation fee, owners, controllers, etc. is also written in Section 112.

The Resident Agent for the Star Point Waste Fuel Mine is Randy J. Scott, Plant Manager. His mailing address is given in Section 112.220 of the MRP.

Section 112.500 states that Sunnyside Cogeneration Associates and the United States, Bureau of Land Management (BLM), and Plateau Mining Corporation (PMC) own the surface land within the permit area.

Land contiguous to the permit area is owned by Plateau Mining Corporation, the United States (BLM), and Carbon County (Section 112.600).

Mine Safety and Health Administration (MSHA) numbers and the Applicant's interest in contiguous lands are in Section 112.600 through 112.800 of the application.

The application states that Cypress Plateau Mining Corporation's name was changed to Plateau Mining Corporation and that all references to Cypress Plateau infer Plateau Mining Corporation.

Exhibit 112.230a documents the 1994 correspondence from the Office of Surface Mining concerning the exemption from AML fees for the material obtained from the Sunnyside Mine Wash Plant. This letter seems to pave the way for such an exemption for the Starpoint Mine Refuse Pile, but correspondence from OSM is required for this new source of coal waste for the SCA plant. As of this date, Brian Burnett, a lawyer for SCA, is following through with this required correspondence (personal communication with Scott Carlson of PSOMAS, May 14, 2003).

Findings:

R645-301-112.230, R645-300-147, The application must describe payment of AML fees or contain an exemption from payment from the Office of Surface Mining.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

The Applicant, any of the Applicant's subsidiaries, affiliates or persons controlled by or under common control with the Applicant has not had a federal or state mining permit suspended or revoked in the last five years or has forfeited a mining bond or similar security deposited in lieu of bond.

Sunnyside Cogeneration Associates have not received any notice of violations from the Division within the three-year period prior to the application.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the Star Point Waste Fuel permit application.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

SCA acquired the coal refuse from Plateau Mining Corp on January 31, 2002. Documentation of the Applicant's right of entry are contained in Exhibits 114.100a, 114.100b, and 114.200a.

The permit area is located in Township 15 South Range 8 East, SLB&M Sections 10 & 15.

Findings:

The information provided meets the Right of Entry requirements of the Regulations.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

Map 111.100a, SCA/Star Point Waste Fuel Permit Boundary Survey, indicates the permit boundary, contains a written legal description, is of proper scale, and contains a north arrow.

Section 115 of the proposed MRP indicates that the Star Point Permit Area is not an area designated unsuitable for coal mining and reclamation operations nor is the area under review. Carbon County Road 290 is within 100 feet of the permit area. The road is on the north side of the refuse pile and runs in an east-west direction. The road is indicated on maps 521.100a and 521.100b. Proximity to the road was mentioned in the public notice (see Exhibit 115.300a). A separate public notice of a public meeting was published concerning the proximity to the public road, but lack of response canceled the meeting (Exhibit 115.300a).

Findings:

The requirements of this section of the regulations are considered adequate in regard to the Star Point Waste Fuel permit application.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

The permit term is for a period of five years. The permit will be issued once the application is considered technically adequate. The life of the operation is anticipated to be 20–30 years, during which time the refuse pile will be used as a fuel source at the Sunnyside Power Plant.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit application, Star Point Waste Fuel C/007/042.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

Exhibit 117.200b contains the proof of publication as required by the coal rules.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit application, Star Point Waste Fuel C/007/042.

FILING FEE

Regulatory Reference: 30 CFR 777.17; R645-301-118.

Analysis:

The required fee of $5.00 was submitted with the permit application.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit application, Star Point Waste Fuel C/007/042.

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

Subsoil that was removed from the refuse pile site in 1982 [during the ownership of Cypress Plateau Mining Corporation (CPMC)] will be used as substitute topsoil. The applicant uses the term subsoil throughout the mining and reclamation plan in referring to substitute topsoil.

The location of the existing topsoil (subsoil) stockpile pile is shown on Maps 222.100a and 222.100b as stated in Section 234 of the application.

Findings:

The information provided meets the requirements for Permit Application Format and Contents.

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

Psomas & Associates of Salt Lake City, Utah wrote the Star Point Waste Fuel Mining and Reclamation Plan under the direction of Scott Carlson, P.E.

The reserve exploration program (Exhibit 624.200a) was conducted by Miltech Energy Services of Lingonier, Pennsylvania in 2001 under the direction of Brian F. Miller, P.E.

Laboratory analysis of refuse samples for % moisture,,% ash, Btu/lb, and %sulfur was conducted by Commercial Testing & Engineering Co. of Huntington, Utah.

Plateau Mining Company officials collected the refuse samples reported in Tables 624100 a, b, c, (with Identification Numbers 87-R-1 through 87-R-9); Bookcliff's Laboratories analyzed these samples; sample locations are shown on map 222.100a.

New with this submittal is Table 624.100d, which is a compilation of various unspecified consultants work. Table 624.100d was acquired from the Star Point Mining and Reclamation Plan (007006). Apparently the names of the consultants who produced the work were not kept with the table. The information in the Table is integral to the discussion written by Kent Crofts in Exhibit 624.230a, Evaluation of Toxic and Acid Forming Properties, included in the Star Point Waste Fuel Application. Therefore, the inclusion of Table 624.100d is acceptable to the Division, in spite of the fact that it lacks source information.

Biological data collected for the Star Point Mine permit area have been collected over several years by different biologist primarily from Endangered Plant Studies, Inc. (EPS). Most of the data was collected during and after 1981. Doctors Welsh and Murdock of EPS conducted the productivity analysis in 1981.

The biological data in this permit application has been recompiled by PSOMAS or directly taken from aerial photos, field visits, and Endangered Plant Studies, Inc. (EPS) studies.

Kevin C. O'Dell, Archaeologist with Sagebrush Consultants, L.L.C. of Ogden, Utah, wrote the 1998 historical study of the town of Wattis in the location of the Star Point Waste Fuel Mine (found in Exhibit 411.140a).

Findings:

The information provided is adequate for the purposes of the Regulations for Reporting of Technical Data.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

The maps submitted in the permit application are presented in a consolidated format and to the extent possible contain the type of information that is set forth on U.S. Geological Survey. The maps meet the scale requirements set forth in the coal rules.

The waste fuel pile (refuse pile) resulted from underground mining. However the mining (excavation) of the pile now is considered surface mining. Maps 222.100b and 321.100b designate pre August 3, 1977 verses post August 3, 1977 disturbance.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit application, Star Point Waste Fuel C/007/042.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GENERAL

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

Analysis:

The Applicant provides a description of the surface and groundwater hydrology for the mine permit in Section 700 and 722, Book 4 of 5. Cross-sections and maps are provided in sections R645-301-722.100 through 722.500.

Findings:

The information provided is adequate to describe the Environmental Resource in general as required by the Regulations.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

Map 111.100a, SCA/Star Point Waste Fuel Permit Boundary Map, shows location of the permit area and gives a detailed legal description. The permit area is divided into two areas, the refuse pile and the subsoil stockpile (substitute topsoil) area. The refuse pile is covered by MSHA number #42-02334 for the Refuse Pile and #1211-UT-09-02334-01 for the Coarse Refuse Pile.

The acreage for each parcel within the permit area is given on Map 111.100a. The parcels are owned either by Sunnyside Cogeneration Associates, the BLM, or Plateau Mining Corp. Exhibit 114.100a, Right of Entry Authorization Documents verifies the information on Map 111.100a. Exhibit 112.500a, Land Classifications within the Permit Area, is a table of the acres owned by the federal government, SCA and PMC.and the number of pre-law, post-law, undisturbed and reclaimed acres. The disturbed area includes 3.6 acres that have been reclaimed by Plateau Mining Corp. in 2001 (Section 117.300).

The public notice in App 117.200b indicates the permit area is 152.81 acres. Map 111.100a breaks out the 153.32 acres as follows:

- 40 acres of leased BLM land,
- 6.28 acres of land owned by Plateau Mining Corporation, and
- 107.04 acres of land owned by SCA are in the permit area.

The disturbed area is identified in several maps, including Map 731.720a, Refuse Pile Surface Water and Sedimentation Control Facilities.

Findings:

The information provided meets the minimum Permit Area requirements of the Regulations.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

Studies for cultural and historic resources of the permit area are contained in Exhibit 411.140a. Originally conducted for the Plateau Mining Corporation, Star Point Mine permit (C/007/006), the surveys in Exhibit 411.140a cover the location of the proposed Star Point Waste Fuel Mine (C/007/042), now owned by SCA.

The Division previously summarized the historic information for the refuse site in a document dated May 26, 1998 Final Approval of Permit Renewal Changes 007/006 Star Point Mine. Further information about the town of Wattis was requested. The 1998 study by Sagebrush Consultants, L.L.C., entitled "Inventory and National register of Historic Places Evaluation of Eight Buildings and Structural Remains at Wattis (Star Point Mine), Carbon County, Utah" addressed this issue.

Since the remains of Wattis are buried underneath the refuse pile and facilities area of the proposed Star Point Waste Fuel Mine, SCA has agreed to notify the Division and State Historic Preservation Officer (SHPO) of any previously unidentified cultural resources discovered in the course of operation and/or reclamation of Star Point Waste Fuel Mine (p 400-5, Section 411.142, Coordination with the State Historic Preservation Officer). This statement addresses the concern that historic structures or artifacts may be encountered during reclamation (also mentioned in the Division's May 1998 Final Approval of Permit Renewal Changes 007/006 Star Point).

Section 411.140 states that there are no historic resources eligible for listing on the National Register of Historic Places within the permit area, but there are some adjacent to the permit area. This statement is based upon the historic/archaeological report written by Kevin C. O'Dell of Sagebrush Archaeological Consultants, L.L.C. in 1998 (included in Exhibit 411.140a). The report indicates in its introduction that there were four historic sites located in the Wattis area during a 1980 survey by Archaeological-Environmental Research Corporation (AERC). Map 411.110 shows the locations of historical sites, and provides a key to the identities of the eligible sites as noted in the 1998 Sagebrush Consultant's report (Exhibit 411.110a).

A report of historic/archaeological investigation from 1980/1981 was included in the Exhibit 411.140a. This report came from the Intermountain Antiquities Computer System State of Utah, Division of State History.

A summary of the history of Wattis (included in the Exhibit 411.140a) was credited to Norman and Hauck, 1980.

Findings:

The information provided meets the Historic and Archaeological requirements of the Regulations

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Analysis:

Climatological information is presented in Section 724.400 to 420. The normal annual precipitation is approximately 8 to 10 inches. About 73% of the average annual precipitation for the area is in the form of snowfall between October to April. The prevailing wind direction is from the southwest. Windspeeds on the regional basis can best be described as light to moderate with average speeds below 20 mph. Temperatures range from a minimum of 13 ° F in January to over 90 °F in July.

Findings:

Information provided in the application meets the minimum Climatological Resource requirements of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

The undisturbed vegetative resources of the permit and disturbed areas are minimal because of the previous Plateau Mining Corporation (PMC) operations. The coal refuse material was stockpiled by PMC. The Star Point Waste Fuel Mine (SPWFM) plans to remove the refuse material and haul it for use at the Sunnyside Cogeneration Associates (SCA) power generation plant at Sunnyside, Utah. Once the refuse material is removed, the stockpiled growth media will be moved to the refuse site, and the site will be recontoured and revegetated. The site where the growth media is currently stockpiled will be recontoured and revegetated.

The Permit Application describes the approximate vegetative resources of the permit and disturbed areas by referencing Tables 321.100a and 321.100b as well as Appendix Map Section 300. Below are the required descriptions, in brief, and associated maps and tables:

- Probable community types present within the SPWFM permit area and surrounding area before disturbance (Map 321.100a; PSOMAS recompiled from EPS data).
- Estimated acreage for each of the communities present within the SPWFM permit area before disturbance (Table 321.100a; PSOMAS).
- Probable communities disturbed, by PMC, within the SPWFM permit area (Map 321.100b; PSOMAS recompiled from EPS data). The map shows pre- and post-SMCRA disturbance.
- Estimated acreage for each of the communities disturbed, by PMC, within the SPWFM permit area (Table 321.100b).

Descriptions of plant community definitions were provided by EPS. The Permittee describes mountain shrub, pinyon-juniper, sagebrush, and saltbrush communities. The sagebrush community is dominated by two varieties of sage: *Artemisia tridentata tridentata* (valley big sage) and *Artemisia tridentata wyomingensis* (Wyoming sagebrush). This community type will be used to measure revegetation success for the areas disturbed by mining operations. The refuse pile was evaluated by EPS as primarily a sagebrush community. There is approximately fifty-four disturbed acres in the SPWFM permit area that is designated as sagebrush community.

The mountain shrub community is dominated by taller shrubs with *Amelanchier utahensis* (Utah serviceberry), *Cercocarpus montanus* (true mountain mahogany), and *Symphoricarpos oreophilus* (snowberry) as the dominant species. There is approximately eleven disturbed acres in the SPWFM permit area that is designated as mountain shrub community. The pinyon pine (*Pinus edulis*) - Utah juniper (*Juniperus osteosperma*) community is dominated by low growing trees and shrubs with very few herbaceous plants in the understory. The growth media stockpile was evaluated by EPS as primarily a pinyon-juniper community. There is

approximately twenty disturbed acres in the SPWFM permit area that is designated as pinyon-juniper community. Shrubs and drought tolerant grasses and forbs dominate the saltbrush community. In the SPWFM permit area, there is only 0.2 acres of this community type and this area has not been disturbed.

Descriptions of productivity for nearby sagebrush and pinyon-juniper communities were provided by EPS. Both community types were rated in 1981 as fair. The pinyon-juniper community areas were measured as producing 1,115 pounds of potential forage with a potential of producing up to 1,650 pounds per acre. The sagebrush areas were measured as producing 1,400 pounds of potential forage with a potential of producing up to 2,000 pounds per acre.

Findings:

Information provided in the application is considered adequate to meet the minimum Vegetation Information section of the regulations for Environmental Information.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

Utah Division of Wildlife Resources (DWR) has conducted wildlife surveys since 1981. There are two plant and eight animal species in the Carbon county area noted on Utah's federally threatened, endangered, or candidate species list. DWR evaluated the SPWFM site and found that there were no endangered or threatened species in the permit area. DWR also conducted surveys to evaluate the potential for special status species present in the SPWFM area. Canyon sweetvetch (*Hedysarum occidentale* var *canone*), Unitah Basin hookless cactus (*Sclerocactus glaucus*), and Graham beardtongue (*Penstemon grahamii*) were the three plant species of interest. Canyon sweetvetch was reported as occurring in adjacent lands, but rated as low probability of occurring at the permit site. Uintah Basin hookless cactus and Graham beardstongue were reported as not occurring and rated as low probability of occurring at the permit area.

Fish and wildlife resource information is provided for in volume two section three of the application. Section 322 provides a discussion on the threatened, endangered, sensitive and species of high value habitat. Tables 322.210a and 322.201b include a listing and status of these species. Species of high value habitat common to the area include Elk, Mule deer, Cougar, and Bobcat. Information regarding Furbearers, Small Mammals, Birds, Reptiles and Amphibians, and Aquatic Resources is also provided in this section.

The locations where environmental data referring to wildlife are collected including raptor nests and wildlife mitigation area are shown on Map 322.220a in connection with Map 321.100a. The applicant has submitted a revised map # 322.220a. Revisions included corrections to the legend to properly identify the symbols linking them to the information in table 322.200f. However the legend and map do not include an accurate description of the proposed permit area boundary.

A letter dated February 14, 2003 from Chris Colt to Carolyn Snyder states that "there are no active raptor nests within ½ mile of the Star Point Waste Fuel project location. However a map of the current raptor nest locations needs to be included with the application.

Findings:

The information provided is adequate to meet the Fish and Wildlife Resource requirements of the Regulations.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

The Order III Soil Survey of Carbon County conducted by the Soil Conservation Service in 1988 included the permit area proposed for the Star Point Waste Fuel Mine.

The location of the refuse pile was surveyed prior to disturbance in 1981 (see Exhibit 222).

Table 222.100a Permit Area Soil Types itemizes six soil types for the 153 acre permit area. At an Order III level, the predominant soil types are Doney, Hernandez, and Strych. These map units are described in Exhibit 222.300b. Map 222.100a SCA/Star Point Waste Fuel Soils Map shows soil and refuse sample locations. Map 222.100b SCA/Star Point Waste Fuel Soils Disturbed Area Map shows the extent of the disturbed area. Within the disturbed area boundaries, the pre-existing soils would probably have been Gerst, Strych or Hernandez.

Topsoil and subsoil was salvaged from beneath the refuse pile in 1982. The material was segregated in two piles. The subsoil pile (C horizon) was transferred to SCA for the proposed Star Point Waste Fuel Mine and the topsoil pile (upper horizons A & B) remained with Plateau Mining Corp (C/007/006). The quality of the stockpiled subsoil is represented by the C horizon samples included in Table 243. The subsoil material meets the suitability requirements for use as substitute topsoil.

Table 243 indicates the location of soils removed from the post-law site. These locations are indicated on Map222.100a. The area of removal as shown on Map 222.100d of the Star Point Mining and Reclamation Plan as approximately six acres, not the entire 47 post-law disturbed area (Exhibit 112.500a). The Division concludes that entire soil profile (down to eighty-four inches) was removed from the site as reported in Appendix 8E of Exhibit 222. The type of material beneath the salvaged soil was not indicated in the Star Point Mine Plan, but would likely be strongly alkaline layers like the C2ca horizon or strongly cemented layers or possibly bedrock.

Findings:

The information provided meets the requirements of the Environmental Soil Resource requirements of the Regulations.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

Pre-Mining land use is described in Section 411.100 as wildlife and grazing, administered by the BLM as part of the Wattis Grazing Allotment (Section 411.120). The wildlife and grazing land use is better ascribed to the adjoining lands, as the historic use of the land within the permit area was for the town of Wattis (Section 411.200).

The land is zoned MG-1 Mining and Grazing (Section 411.130). Section 411.130 itemizes the use of lands adjacent to the permit area, including recent oil and gas development. County Road 290 adjacent to the permit area is used for access to Gentry Mountain for recreation and maintenance of county facilities and as a route to the oil and gas developments adjacent to the permit area.

Findings:

Information provided in the application meets the minimum Land Use Resource Information requirements of the regulations.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

Alluvial Valley Floor Determination

The Star Point Waste Fuel Surface Geology Map 624.100a locates the proposed mine site on pediments formed from the Mancos Shale and Quaternary deposits. Underneath the refuse, the Mancos shale member is hundreds of feet thick. The Ferron Sandstone member lies approximately 1200 feet below the shale unit and is a source for natural gas and ground water. The exceptionally low conductivities of the shale will prevent downward migration water from the refuse site to the first aquifer below the refuse piles.

Surface drainage from the site flows into sediment ponds that discharge into ephemeral tributaries of Serviceberry Creek as illustrated on Map 722.200. Serviceberry then conveys the water to Miller Creek, which is a tributary of the Price River (Section 532 and 533).

Ground water rights within or adjacent to the Star Point Waste Fuel Mine operations are listed in Table 724.100a. All ground water rights were for underground use in the Star Point Mine. Surface water rights are listed in Table 724.200b.

Areas of irrigated land are designated on Figure 724.200a. All of this irrigated land is downstream of the proposed Star Point Waste Fuel Mine. Operation of the proposed Star Point Waste Fuel Mine will not affect the quality of downstream waters. All discharges from the proposed permit area to major stream channels are regulated by a UPDES permit from the Utah Division of Water Resources.

Findings:

The Division finds that the proposed Star Point Waste Fuel Mine is not located in an alluvial valley floor.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Analysis:

The Natural Resource Conservation Service (NRCS) was contacted for their opinion on the farmland status of the permit area (Exhibit 221). The NRCS concluded that there was no prime farmland due to arid soils and lack of irrigation water to the site.

The Division notes that there are 77 acres of Hernandez soils (Map Unit 53) listed in Table 222.100a for the permit area. This map unit is described in the 1988 Soil Conservation Service Carbon County Survey as prime farmland soils if irrigated.

Findings:

The Division concurs with the NRCS that the land within the permit boundary is not prime farmland.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

Geologic Resource Information is provided in Section 600 of the application. The General Surface Geology, Map 624.100a depicts the formational geology of the Star Point Waste Fuel mine area at a scale 1:100,000. The refuse pile sits on the Cretaceous Mancos Shale and Quaternary alluvial deposits. The Mancos Shale consists mostly of thick gray marine mudstone or shale that inter-finger with offshore sandstones, the Star Point Sandstone, the Panther, Storrs and Spring Canyon (from lower to upper). These sandstone members now form cliffs at outcrops and are yellowish gray and fine to medium grained.

The refuse site sits below the outcrop of the Star Point sandstone on the Mancos shale member. A stratigraphic column in Figure 624.100a shows the sequence of the geologic members in the Star Point Sandstone and Mancos Shale on and adjacent to the Star Point Waste Fuel proposed permit area.

Underneath the refuse, the Mancos shale member is hundreds of feet thick. The Ferron Sandstone member lies approximately 1200 feet below the shale unit and is a source for natural gas and ground water. The exceptionally low conductivities of the shale will prevent downward migration water from the refuse site to the first aquifer below the refuse piles.

Findings:

Information provided in the application meets the minimum Geologic Resource Information requirements of the regulations.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Sampling and Analysis

Hydrologic Resource information is provided in Section 700, Book 4 of 5, of the application.

Sampling and Analysis

No seeps, spring, perennial or intermittent streams or lakes are present in the immediate vicinity of the proposed permit area.

The applicant submitted Map 731.800, which identifies the sections where water rights are located. The applicant has also submitted Tables 724.100a and 724.200b identifying the location and use of water rights on and adjacent to the permit area. A groundwater right, 91-3555, is identified in Table 724.100a, which designated for mining, but not used. Table 724.200b shows nine surface water sites used for wildlife and stockwatering. The water rights are points of diversion and are not on the main channel adjacent to the proposed permit. The waters should not be affected. The discharge from the permit area and drainage channels is ephemeral.

The Applicant does not plan to conduct a monitoring program, because there is no continuous flow on the proposed permit area.

The Applicant plans to conduct UPDES water monitoring in accordance with their permit from the Utah Division of Water Quality.

Baseline Cumulative Impact Area Information

SCA acquired the Wattis Coal Refuse Pile located in Sage Brush Canyon from Plateau Mining Corp. The refuse pile was left by the Star Point Mine. The Star Point Mine is currently being reclaimed. The cumulative impact area encompasses the area down stream from the mine until no impacts can be detected. The proposed permit area lies within the current Cumulative Hydrological Impact Area identified by the Utah Division of Oil, Gas and Mining for the Star Point Mine. The sediment controls designed for the refuse site were already in place for the operations of the Star Point Mine. After reclamation of the Star Point Waste Fuel Mine, there should be fewer downstream impacts, since the majority of the refuse will have been removed.

Probable Hydrologic Consequences Determination

The Probable Hydrologic Consequences Determination is addressed under Section 728 of the application. SCA has supplied extensive baseline information for water resources adjacent to the proposed permit area, collected by Cyprus Plateau Mining Corporation and Plateau Mining

Corp. The greatest potential impacts from excavation, maintenance and reclamation of the refuse pile is an increase of sediment in the surface waters downstream from the proposed permit area. The Applicant describes in Section 200 and 300 of the application, that alternative sediment controls will be used such as those shown on Maps 733.731a and 733.731b. The use of these measures during operations and reclamation phases will reduce erosion and sedimentation, thus, reduce impacts to the adjacent environment.

Information provided in Table 624.100c of the application portrays mine refuse as acid forming.

Ground-water Information

The permit identifies two active aquifers in the stratigraphy above the permit area, however there is no association of these aquifers to the permit area, because they are higher in elevation than the permit area and there will not be any contact between the operations and the aquifers.

The nearest underlying aquifer below the permit area lies approximately 1200 feet below the surface. There should be no communication between runoff from the permit area and the underlying aquifer.

One well currently exists within the SCA-Star Point Permit area. This well, located in the vicinity of the surface facilities was completed by Cypress Plateau Mining Corp. in 1991 to provide process water and for dust suppression on roads near the mine. The well is drilled to a depth of 1200 feet. It is located where the Mancos Shale is the surface geologic formation and is completed in the sandstone unit located below the aquifer system described in the geologic section. Production of the well was small and as a result the well is not presently used.

Surface-Water Information

Water resources located within and adjacent to SCA's permit area are few. The location of surface water potential is shown on Map 731.720a. Runoff from the proposed permit site is a result of snowmelt or rainfall only. No springs are identified on the proposed permit area. There are no major stream channels draining the proposed permit area. All runoff from the disturbed area enters sediment control structures. The adjacent streams are identified as ephemeral. Any discharges from the proposed permit area to major stream channels are regulated by a UPDES permit from the Utah Division of Water Resources.

Alternative Water Rights Resource Information

No alternative measures have been proposed, since there are no water resources identified on the proposed permit area. No water resources should be impacted or diminished. There are

no water rights within or adjacent to the proposed permit area that may be impacted by the operations.

Findings:

Information provided meets the minimum Hydrologic Resource Information requirements of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The Division considers the affected area for the SCA/Star Point Waste Fuel Refuse Pile to be the same as the permit area. Note: the affected area includes sub-areas for which it is anticipated that additional permits will be sought. Given the nature of the project, recovery of refuse material, the Permittee will most likely not seek addition areas to mine.

Map 111.100a, SCA/Star Pont Waste Fuel Permit Boundary Survey, shows the permit boundaries. The map also shows the legal description.

Archeological Site Maps

Maps are included with the two historic and archaeological surveys in Exhibit 411.140a. A chart on Map 411.100 correlates the sites on the map with the four eligible historic sites noted in the introduction to the 1998 Sagebrush Archaeological Consults L.L.C. survey of the area (see the Historic and Archaeological Resource Information section of this Technical Analysis).

Coal Resource and Geologic Information Maps

The refuse material to be removed is identified as the resource material (not considered coal or a coal seam). There are three stockpiles to be removed. The refuse material will be hauled from the site to SCA's power cogeneration plant at Sunnyside, Utah where it will be used as an energy source to supplement its power generation. The Reserve Assessment is mapped on Drawing No. 01-372-1.

All the hydrologic maps showing surface areas contain contours.

The Star Point Waste Fuel Surface Geology Map 624.100a provides an overview of the regional geology. Map 624.100a has an incomplete legend. i.e. The legend does not include definitions for the following symbols: Kmbg, Kbh, Kme, Kmgc, Kmub, Qal, Qsl, and Qsw. The Star Point Waste Fuel Mine sites is located on Kme and Kmub deposits as well as QTpm (Quarternary Deposit Pediment Mantle).

Cultural Resource Maps

Map 411.110 shows the locations of historical sites, and provides a key to the identities of the eligible sites as noted in the 1998 Sagebrush Consultant's report (Exhibit 411.110a).

Existing Structures and Facilities Maps

The existing facilities and surface configuration as of 2003 are shown on Map 521.100g and 521.100h. The map shows Structure 17, Structure 18, Structure 19, Structure 35 and Structure 75. In addition to those structures, the Permittee shows ponds, refuse piles, and roads.

The existing hydrologic structures at the mine consist of berms, diversion ditches, channels, culverts, catch basins and sedimentation ponds. Map 731.720b identifies the structures. Maps 733.120a, 733.120b, 742.100 and 742a illustrate the design of the structures.

Existing Surface Configuration Maps

In the previous Technical Assessment (dated January 9, 2003), the Division requested "a set of contour maps that show the existing topography as the "existing contour" maps." The Division suggested that, " If the Applicant is unable to obtain or create maps of the existing, surface configuration from PMC, then the Applicant must state so." The term existing surface configuration is not defined. Because part of the proposed permit area was disturbed pre-SMCRA and some part post-SMCRA, the issue can become complicated. The Permittee provided the Division with Map 521,100j, SCA/Star Point Waste Fuel Pre-SMCRA Surface Configuration Map, which shows the topography as of November 21-22 1976. The Division will assume that map shows the topography the existed prior to the enactment of SMCRA and that any question arising from Pre-SMCRA or Post-SMCRA issues will be resolved in part by Map 521.100j.

Mine Workings Maps

There is no underground mine. Three piles of refuse will be mined. These three piles are shown on the map 521.100e.

Monitoring and Sampling Location Maps

SCA has indicated that a water monitoring plan will not be conducted. There is only one water well on site that consists of a potential water source. The well is 1,200 feet down and is not used. There are three sedimentation ponds that have discharge structures and require monthly monitoring. The UPDES program is managed by the Utah Division of Water Quality, the discharges are reviewed by the Division of Oil, Gas and Mining to assure no off site contamination.

Permit Area Boundary Maps

Map 111.100a, SCA/Star Pont Waste Fuel Permit Boundary Survey, shows the permit boundaries. The map also shows the legal description.

Subsurface Water Resource Maps

A map showing subsurface water resources is not necessary, since subsurface water resources will not be impacted. The first aquifer below the refuse pile is located 1,200 feet below proposed permit area. Any shallow subsurface water will drain to the sedimentation ponds.

Surface and Subsurface Manmade Features Maps

The locations of all buildings within 1,000 feet of the permit boundary are shown on Maps 521.100a and 521.100b. Most of the buildings out the permit area are schedule to be demolished as part of the Star Point mine reclamation.

The maps show the location of the County Road 290, which run parallel to the northern boundary of the refuse pile permit area.

Surface and Subsurface Ownership Maps

Map 111.100a serves as a surface ownership map. Subsurface ownership does not apply, since there is no underground mining planned for the Star Point Waste Fuel Mine.

Surface Water Resource Maps

A map showing the location of the four surface water rights has been requested (see the Hydrologic Resource Information section of this Technical Analysis).

Vegetation Reference Area Maps

The location and boundary line of the reference area are shown on Map 321.100c.

Well Maps

Map 722.200 identifies the well location.

Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the maps and cross-sections regulations.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

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

Analysis:

The mine life is estimated to be twenty years. Volume of waste to be mined is estimated at 4,710,000 cu yds. Approximately 1,430,000 cu yds will be removed from the site every five years for the first fifteen years. The final five years in the life of the mine will see 410,000 cu yds moved from the site (see Map 521.100e). Table 523.100a relates the tonnage of coal mine waste to be moved as 200,000 tons/year which equates to 833 tons/day, 104 tons/hour, 15 truck trips/day or two trucks an hour.

Three refuse piles (A, B, and C) are illustrated on Maps 521.100e and 731.120b. Map 521.1100d and e shows the sequence of mining (Section 521). SCA will use a standard mobile fleet of excavation equipment that may include all or some of the following: dozers, front-end loaders, end-dump trucks, scrapers, backhoes, and support equipment.

The Applicant proposes to use the existing structures and facilities, which were approved for use by PMC. Those structures and facilities are shown on Plate 521.100a, Plate 521.100b and in section 526 of the PAP. The consultant's report found in Exhibit 624.200a recommended sorting, crushing and blending of the coarse with the fine waste, but the Permittee does not intend to conduct those operations at the site (Division communication with Mr. Rusty Netz, January 6, 2003).

Findings:

The information provided meets the requirements the Operation Plan Mining Operations and Facilities requirements of the Regulations.

EXISTING STRUCTURES:

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

Analysis:

In section 526.111 of the PAP, the Applicant lists the following existing structures:

- Coal Waste Refuse Pile
- Vegetation/Soil Test Plots
- Sediment Pond No. 5
- Sediment Pond No. 6
- Accounting/Surface Operations Office
- Surface Operations Bathhouse
- Surface Foreman's Office, Salt Storage, Achieves
- Excess Spoil Disposal Area (Former Pond Treatment Area)
- Concrete Slab (Part of fuel storage/dispensing structures that have been removed.)
- Shop Building
- Sediment Pond No. 9

Exhibit 526.112a contains photographs of the existing structures. That information is adequate to document the structures that exist at the time of permit issuance and the condition that the structures are in.

Findings:

The information provided in the PAP meets the minimum requirements for the existing structures section of the regulations.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

Cultural and Historic Resources Information, Page 400-5, Section 411.140 indicates that there are no sites eligible for nomination to the National Register of Historic Places within the disturbed area. No cemeteries or Indian burial grounds have been identified within the permit area. There are no units of the national trails system or the wild and scenic rivers system within the areas encompassed by the permit boundary.

Findings:

The information provided is adequate for the Protection of Public Parks and Historic Places requirements of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

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

Analysis:

The Applicant does not plan to relocate or use any public roads that are within the permit boundary. However, SCA does plan to conduct mining operations with 100 feet of the right-of-way of a public road. In Section 526.116 of the Pap the Applicant states that the public will be protected from mining operations that occur within 100 feet of the County Road by:

- Maintaining stable slopes in the permit area.
- Removing debris from the road and culvert
- Not cutting any steep cut slopes or altering an natural drainages
- Posting stop signs to all entrances to the County Road.

The Division does not have specific standards for how mining will be conducted within 100 feet of a public road. The measures taken by the Applicant are similar to those at other mines and specifically when Plateau Mining was operating the facility. Therefore, the Division considers that actions sufficient to protect the public.

Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the relocation or use of public roads requirements of the regulations.

AIR POLLUTION CONTROL PLAN

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

Analysis:

The application indicates that fugitive dust will be controlled with applications of water and/or calcium chloride or potassium chloride or other biodegradeable wetting agents. Section 526.400 indicates that the air quality permit can be found in Exhibit 421a. As described in the correspondence of Exhibit 421a, the Starpoint Refuse Pile has been given a “small source exemption” by the Division of Air Quality, so long as the operation remains as described in the Small Source Exemption Registration correspondence dated February 8, 2002.

Findings:

The information provided meets the requirements of the Air Pollution Control Plan requirements of the Regulations.

COAL RECOVERY

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

Analysis:

The Applicant proposes to ship coal refuse from the site to a cogeneration facility. At the cogeneration facility, the Applicant will burn the coal refuse to generate electricity. Given the nature of the material and the locale markets the only foreseeable use of the refuse material is to burn the material in a cogeneration facility. The only other option is to bury the refuse material at the current location.

An exploration program in 2001 by Miltech Energy Services of Lingonier, Pennsylvania (Exhibit 624.200a), provides information on the quality, size, volume and density of the raw material. The report indicates that there are 4.7 million cubic yards of refuse, with an average density of 105 lbs/cu ft (1.42 tons/cu yd). At 12% moisture, the site could yield 7.3 million tons of coal refuse. Average quality of the raw material increases with depth to 8,000 – 9,000 btu/lb. Particles with the greatest heat content are located near the bottom of the pile and represent 30% of the refuse pile. Screening of the large fragments from the pile will improve product quality.

(Two pits are labeled BH-1 on Figure 1-1 of Appendix 624.200a and Drawing No. 01-372-1 of Appendix 624.200a have been correctly labeled on Map 222.100a.)

Findings:

The information provided meets the reporting requirements for Coal Recovery of the Regulations.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Subsidence Control Plan

The Applicant does not propose to conduct underground coal mining within the proposed permit boundaries. There are no known underground workings within the proposed permit boundaries. Since subsidence will not occur, the Applicant does not need to submit a subsidence control plan.

Findings:

The information provided in the Permit Application Package meets the minimum requirements for the subsidence control plan of the regulations.

SLIDES AND OTHER DAMAGE

Regulatory Reference: 30 CFR Sec. 817.99; R645-301-515.

Analysis:

The Applicant has committed to notify the Division if a slide was to occur and to comply with any remedial measures required by the Division. The Applicant specifically states that they would notify the Division by the fastest method available in the event of a slide. In addition, the Applicant agrees to comply with remedial measures required by the Division.

Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the slides and other damage section of the regulations.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

Measures taken to disturb the smallest practicable area and a plan to minimize disturbances and adverse impacts are discussed in Sections 331 and 333. In the application it

states that, "Only facilities required to operate the refuse pile, access the topsoil area or to satisfy environmental or safety requirements will be built."

The protection plan is divided into four categories, direct impacts to individuals or populations, direct impacts to wildlife habitat, indirect impacts associated with increased access, and residual impact associated with the operation of the SCA facilities. Specific measures include:

- A commitment to notify the Division of any sightings of threatened, endangered or sensitive species;
- A commitment to preclude the potential of raptor electrocutions on construction of power lines. The application references a letter dated October 9, 1981 from the USFWS to Cleon B. Feight, Director of DOGM stating, "The Plateau Mining Company Lines were examined for the Star Point mine. It's lines do not pose a threat to raptors.";
- A commitment to provide passage for large mammals where excavation related structures prevent necessary migrations;
- A commitment to provide fencing, cover, or other appropriate methods that protect animals from accessing ponds that may contain toxic materials;
- A commitment to develop a mitigation plan with the appropriate agencies should there be impacts to surface or ground water quality; and
- A commitment to inform all employees of the values of the wildlife resources associated with the mining activities.

Endangered and Threatened Species

A discussion of these species is provided in section 322.210 of the application:

Bonytail Chub
Colorado Pike Minnow
Humpback Chub
Razorback Sucker
Bald Eagle
Mexican Spotted Owl
Black Footed Ferret

The Mexican Spotted Owl is listed in Carbon County as possibly being a threatened species. The former Permittee had conducted raptor surveys since the inception of the Surface Mining and Reclamation Control Act with no sightings of the Owl. Since there will be no additional surface disturbance associated with the activities proposed by SCA it is unlikely that there will be any impacts to the birds or their habitat.

There have been no confirmed sightings of Black-Footed Ferrets in Carbon County in several years.

The removal of the refuse has no potential, through water depletions, of adversely affecting four listed threatened and endangered fish species of the upper Colorado River drainage. No water will be consumed as a result of the refuse removal activities other than occasional watering of the access road. The U.S. Fish and Wildlife Service (USFWS) requires mitigation when water depletions exceed 100 acre-feet annually. USFWS concurrence is pending.

Bald and Golden Eagles

Bald eagles are not common in the area during the winter but could occasionally fly through or roost in the proposed permit area. Mining would have negligible effects on these birds.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

There are no wetlands within or associated with the proposed refuse removal activities.

The permit and adjacent areas are high value for Mule Deer and Elk. Mule Deer occupy both high priority summer and winter range. Elk occupy high priority winter range. Since the refuse pile has been active for approximately 30 years, no impacts to wildlife species are anticipated.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Subsoil to be used as substitute topsoil was removed from the refuse pile site in 1982 under the ownership of Cypress Plateau Mining Corporation (CPMC). The applicant uses the term subsoil throughout the mining and reclamation plan.

The location of subsoil pile is shown on Map 521.100d, SCA/Star Point Waste Fuel Refuse Pile Operation Plan Overview, and on Map 111.100a SCA/Star Point Waste Fuel Refuse Permit Boundary Survey. The volume of substitute topsoil has been surveyed at 192,000 cu yds by CPMC. SCA estimates that 235,000 cu yds will be available during reclamation due to a swelling of the material. (The compaction factor of 0.3 was used based on published research (page 200-9.)

Section 234 describes topsoil storage. The topsoil is stockpiled with 2h:1v slopes and is vegetated. Exhibit 234 outlines the seed mix used in 1982 on the subsoil stockpile. Erosion from the stockpile is controlled by vegetation, a sediment trap, and runoff control terraces (Section 234).

Findings:

The information provided meets the requirements of the Operations Topsoil Subsoil requirements of the Regulations.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

SCA reports mining operations will consist of removing the refuse pile and transporting it to the SCA power plant in Sunnyside, Utah. SCA commits to keeping disturbance to areas or facilities related to refuse pile removal, subsoil stockpile, and environmental-related duties. The Permittee plans to apply interim seed mix on temporary disturbances throughout the mining operations.

SCA reports that there is no expectancy of subsidence during this mining project.

Findings:

Information provided in the application is considered adequate to meet the minimum Vegetation Information section of the regulations for Operation Plan.

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

All roads with the possible exception of pit roads must be classified as primary or ancillary roads, R645-301-527.100. The Division considers pit roads to be roads in the active mining section of the refuse pile. The location of pit roads will change as mining progresses. In general, the Division does not require pit roads to be designed.

In Section 527.100-200 of the PAP the Applicant lists the roads that will be in the permit area and their classification. The list is shown in Table 527.100a.

The primary roads are the existing primary haul road also known as Road H, Road M a proposed haul road for piles B and C, and Road K the access road to the subsoil area. The ancillary roads are Road G to Pond 6, Road H to Pond 5 and Road L around Pond 9. The Division agrees with the road classification presented by the Applicant.

Plans and Drawings

There is one existing primary road and two proposed primary roads. The designs for the Primary Haul Road are shown on Map 534.100e, Table 527.100a and Section 527.210 of the PAP. The designs for the Primary Haul Road are as follows:

- The Primary Haul Road (Road H) is approximately 12 to 30 feet wide and the grade ranges from 0 to 11%. The road is constructed of dirt. After mining is completed, the road will be reclaimed. Road M will be 10-24 feet wide and the grade ranges from 0 to 10.9%. Road K will be 12-24 feet wide with a grade that ranges from 11.5 to 22.6%.
- The primary roads will not require the alternation of any intermittent or perennial streams or existing natural drainages.
- The primary roads are designed so the all runoff will report to a sediment pond or a ditch.
- Because the primary road the designs have to be certified by a registered professional engineer. Scott Carlson, who is a professional engineer, certified the designs.
- The designs did mention that the stability factor for the road embankments 1.3 or greater.

The Division finds that the designs for the primary roads are adequate to meet the requirements of the R645-301-500 section of the regulations.

The Applicant has identified three existing ancillary roads that will be in the permit area. Those roads are Road G, Road H and Road L.

The design parameters for Road G are show on Map 534.100f, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road G show the following:

- The location and cross-sections for Road G are shown on Map 534.100f. The road will vary in width from 10 to 12 feet and grade ranges from 0 to 14.6%. The road provides access to Pond 6.
- Road G will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road G is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The design parameters for Road H are show on Map 534.100d, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road G show the following:

- The location and cross-sections for Road H are shown on Map 534.100f. The road will vary in width from 10 to 12 feet and grade ranges from 0.8 to 12.2%. The road provides access to Pond 5. Note in Section 527.210 the Applicant states that Road H provides access to Pond 6, which is an error.
- Road H will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road H is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The design parameters for Road L are show on Map 534.100b, Table 527.100a and in Section 527.210 of the PAP. Reclamation for the roads is in Section 542.200 of the PAP. The designs for Road L show the following:

- The location and cross-sections for Road L are shown on Map 534.100b. The road will vary in width from 10 to 25 feet and grade ranges from 0 to 7.3%. The road will be dirt and provide access from the north side of Refuse Pile A to Pond 9.
- Road L will not require modifications involving intermittent or perennial streams or existing natural drainages.
- Road L is designed so that all runoff will either report to a sediment pond or a ditch.
- The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

The Applicant did state that all private roads within the permit area would be reclaimed. The commitment is stated in section 542.200 of the PAP.

Performance Standards

The general performance standards are listed in R645-301-534.140, R645-301-534.150, R645-301-534.200 and R645-301-534.300. The Applicant is required to meet all performance standards.

Primary Road Certification

Plate 534.100a and Plate 534.100e show the general designs for the Primary Haul Road. A registered professional engineer has certified the designs.

Other Transportation Facilities

The Applicant did state that there is a railroad line within the permit boundary that is not under the control of the Applicant.

Findings:

The information provided in the PAP is adequate to meet the minimum requirements of the road and other transportation facilities regulations.

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:

Disposal Of Noncoal Mine Wastes

The Applicant committed to have dumpsters placed in a central location. Periodically the dumpsters will be emptied and the noncoal waste will be shipped to a state approved landfill. All hazardous wastes will be disposed of in accordance with RCRA.

Coal Mine Waste

Coal mine waste is defined as coal processing waste and underground development waste. Sunnyside Cogeneration Associates will reduce the coal processing/underground development waste by its re-mining operation at the site. The refuse rejected for use by SCA is, by definition, coal mine waste. Operational treatment of the coal mine waste “reject” will follow the requirements of R645-301-536.

The Applicant has indicated that it is logistically impossible to return the "reject" waste to the refuse pile while it is being mined and that only a small amount of coal mine waste and excess spoil is anticipated (Section 528.100). The Applicant proposes to permanently dispose of coal mine waste "reject" material in the former slurry ponds. R645-301-536 allows the Division to approve of the disposal of coal mine waste in excavations in the mined out area.

The Disposal Area is shown on Map 521.100f (Section 528.300-321 and Section 528.322). This map shows the proposed disposal area covering 5.5 acres in a former slurry pond. The application anticipates that the slurry pond location may hold 3.1% of the current volume of refuse or 145,000 cu yds. The material will be compacted into a 4h:1v slope against the existing topography. The sloping sides of the disposal area will face north, east and southeast. The disposal area is designed for an average height of forty feet deep at the center, with a maximum of 55 feet at its highest point.

During operations, the coal mine waste will be routinely compacted to prevent combustion and wind-borne transport. The application indicates that the coal mine waste will be compacted in four foot lifts to a 4h:1v slope (Map 521.100f) and covered with four feet of material at final reclamation (Section 528.300-321). The application indicatea a long-term static safety factor of 3.0 for the disposal site.

Refuse Piles

Two MSHA numbers exist for the site:
Refuse Pile I.D. # 42-02334
Coarse Refuse Pile I.D. #1211-UT-09-02334-01.

The application designates three refuse piles at the site, A, B and C. The refuse piles are shown on several maps including Plate 521.100d and Plate 521.100e. Because of the nature of the project, no additional refuse will be placed on site. The mine plan calls for the refuse to be removed from the piles and sent to a cogeneration facility for burning.

The existing refuse pile was designed and approved in the Star Point MRP. The general requirements for refuse pile design are as follows:

- The refuse pile will be designed using current prudent engineering practices and will meet the design requirements of the Division. The Division has approved the design of the refuse piles as part of the Star Point MRP. Since the Applicant intents to remove material from the refuse piles instead of adding to them the Division will consider the design of the existing refuse piles adequate.

- The refuse piles must have a static safety factor of 1.5. The stability analysis for the refuse piles is in Exhibit 528.322a. The Applicant proposes to keep the slopes stable by maintaining a slope angle of 2H: 1V.

No additional foundations will be constructed at that the site.

Impounding Structures

No impounding structures will be made from coal mine waste.

Burning And Burned Waste Utilization

The refuse piles that have been in existence at the Star Point Mine will be utilized for fuel at the Sunnyside Refuse Cogeneration Plant. If coal mine waste fires erupt during the operation, they will be extinguished by covering or excavating the burning material. According to Section 528.323, soil imported from the Neilson Pit located in Wellington, Utah may be used for this purpose. The applicant does not plan on using salvaged, stockpiled substitute topsoil for this purpose.

The Applicant committed to using only employees trained in handling burning waste material for extinguishing the fires. This plan is similar to those approved by the Division and used by AML for dealing with coal waste fires.

Return of Coal Processing Waste to Abandoned Underground Workings

The Applicant does not propose to place coal processing waste in underground workings.

Excess Spoil:

The Division does not consider refuse reject material as excess spoil, by definition.

The only material to be generated at the site fitting the definition of excess spoil is sediment pond cleanout material. The Applicant states that the disposal area is capable of handling 145,000 cubic yards of material. The amount of sediment pond clean out material will be minor compared to the amount of coal mine waste “reject” material.

Findings:

The information provided is not adequate for the purposes of the Operations Refuse and Spoil and Waste requirements of the Regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

The operational runoff conveyance and sediment control plans were approved for operation by PMC. The plan includes a complete layout of temporary control diversions, ditches, and ponds. Throughout the majority of the mine plan area diversions and ditches have been designed to safely transmit the precipitation events of a 10-year, 24 hour storm.

Casing and sealing of wells

The casing and sealing of wells is discussed in Sections 631 and 748 of the application. The applicant states that all water wells within the permit area will be cased or sealed as approved by the Division to prevent acid or toxic drainage from entering ground or surface water, to minimize disturbance to the hydrologic balance and ensure the safety of people, livestock, fish, wildlife and machinery. The applicant has outlined the steps to be taken in reclaiming the well in Section 631. The procedures outlined fulfill the requirements of the regulations.

Groundwater Monitoring

No ground water monitoring will take place. The well is not being used. Since the surface is separated from the aquifer by 1,200 feet of shale, groundwater contamination is not likely. No springs or other groundwater sources exist on the property. The operations will not disturb or disrupt groundwater recharge sources. No monitoring will be required.

(A specific requirement for surface mining (R645-731.112 should be addressed in this section.)

Surface Water Monitoring

Surface water monitoring will not be conducted (other than UPDES monitoring), because there are no surface waters in the proposed permit area.

Acid- and Toxic-Forming Materials and Underground Development Waste

The plan indicates in Sections 542.700 and 728.320 that the refuse is potentially acid/toxic forming. Supportive information for this statement is founding Section 624.330. Chemical characteristics of the refuse are found in Section 624.100 and 624.220-230 and Exhibit 542.700a, CPMC 1995 Response to DOGM Midterm Review. Recent research on refuse fuel quality is reported in Exhibit 624.210a, Reserve Assessment of Star Point Coal Refuse Site, prepared by Miltech Energy Services Inc., Ligonier Pennsylvania.

Table 624.100c presents the results of sampling of the surface four feet of the refuse pile in 1987. Locations are shown on Map 222.100a. The results indicate that the refuse is acid forming based upon total sulfur values (average total sulfur acid/base potential of –9.6 Tons/1000 Tons and a range of –36 to positive 37 Tons CaCO3/1000Ton). When only pyritic sulfur is taken into account, the Acid/Base Potential ranges between –18.8 and 11.1 Tons CaCO3/1000 Tons. The average pyritic Acid/Base Potential of the refuse reported in Table 624.100c is 0.5 Tons CaCO3/1000 Tons.

Transfer of Wells

Only one unused well exists in the proposed permit area. Transfer of this well and any other constructed wells will be in accordance with State water law and an approval by the Division and State Engineer.

Discharges Into An Underground Mine

There are no mine openings associated with removal of the coal seam, this no discharge into an underground mine.

Gravity Discharges From Underground Mines

Not applicable. No gravity discharges from an underground mine will take place.

Water-Quality Standards And Effluent Limitations

The sedimentation ponds will continue to be monitored in accordance with UPDES permits, which outline the State and Federal discharge limitations. Details regarding effluent limitations related to UPDES discharges are found in Exhibit 731.221and 731221d. The plans for the sedimentation ponds are prepared by a registered professional engineer and presented in Section 742.212. Sediment will be removed from these ponds on a regular basis when 60 percent of the “sediment capacity “ is reached.

Diversions: General

SCA has submitted maps 731.720a and 731.720b that shows the location of diversion structures on the proposed permit area. Diversion ditch and culvert peak flow calculations are provided in Exhibit 732.300a.

Stream Buffer Zones

There are no flowing stream channels in the permit area.

Sediment Control Measures

There are three sedimentation ponds on the proposed permit area and several small catch basins. On October 1, 2002 members of the review team toured the refuse pile. Mr. Johnny Pappas (pointed out several catch basins that are located around the proposed permit area. The catch basins are shown on Maps 521.100a and 521.

Sedimentation ponds.

Three sedimentation ponds (Ponds 5, 6 and 9) are already constructed and functioning to serve as on site water pollution control facilities. The ponds are designed to contain the 10-year 24-hour design storm runoff event. Sediment pond details are illustrated on Maps 733.120a, 733.120 f and 733.120 j. Stage-capacity curves for ponds 5,6 and 9 are illustrated in Figures 742.221e, 742.221 f and 742.221i. The site also contains several other alternative sediment control measures such as berms, silt fences and catch basins. The sedimentation ponds will remain in place throughout the operation period.

Siltation Structures

The applicant has identified the alternative sediment control structures (ASCAs) on Map 731.720b. Alternate sediment control areas for the Star Point Mine permit (C/007/006) were approved on September 28, 1989. Map 742.100 identifies surface roughening, benches, silt fences, sediment traps, rock check dams, water bars, berms and straw bales to help control sediment. The structures will be used throughout the permit area to control small areas where sediment is a concern. The small catch basins inquired about in the earlier review are considered ASCAs. These areas structures will be destroyed as the refuse pile is depleted. All runoff will report or sedimentation ponds or other ASCAs.

Discharge Structures

Pond inlet and outlet design calculations are presented in Exhibits 742.221e.

Impoundments

The sediment ponds, Pond 5, Pond 6 and Pond 9 were all constructed or approved under the Star Point permit. See Siltation Structures section above.

The designs of the sediment ponds address the following requirements:

- None of the ponds meet the requirements of an MSHA pond.
- A registered professional engineer designed all ponds.
- The Applicant did not address the stability of Pond 6 in Section 533.100-200 of the PAP and the Applicant did not state where the stability analysis for Pond 9 could be found. The Applicant did state that Pond 5 has a safety factor of 1.8 and Pond 9 has a safety factor of greater than 1.5.
- Since the ponds were approved in the Star Point permit the Division has already reviewed the ponds' construction, including foundation preparation.
- No highwalls are associated with the ponds.
- Inspections of the pond construction were handled under the Star Point permit.
- None of the ponds will be permanent, all ponds will be removed during final reclamation.

In addition to the sedimentation ponds several small retention ponds that will trap and fully contain runoff from small areas.

Findings:

The information provided meets the minimum requirements of the Regulations for Operation Plan Hydrologic Information.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

In section 526 of the PAP the Applicant lists the existing and proposed support facilities and utility installations. In Table 526.111a of the PAP, the Applicant lists the following existing structures:

- Coal Waste Refuse Pile
- Vegetation/Soil Test Plots
- Sediment Pond No. 5
- Sediment Pond No. 6

- Accounting/Surface Operations Office
- Surface Operations Bathhouse
- Surface Foreman's Office, Salt Storage, Achieves
- Excess Spoil Disposal Area (Former Pond Treatment Area)
- Concrete Slab (Part of fuel storage/dispensing structures that have been removed.)
- Shop Building
- Sediment Pond No. 9

In Table 526.11b of the PAP the Applicant lists the following proposed structures.

- Bermed containment area for portable tank with concrete slab.
- Bermed containment area for portable tank.

The Applicant states in Section 526.100-110 of the PAP that none of the buildings will receive electricity, water or sewage services.

Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the support facilities and utility installations section of the regulations.

SIGNS AND MARKERS

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

Analysis:

The Applicant committed in the MRP to post all signs and markers as required by R645-301-521.200. The following guidelines will be followed:

- The signs and markers will be posted, maintained and removed by SCA.
- The signs and markers will be built of durable material and conform to local laws and regulations.
- They will be in-place and maintained during all operation and reclamation activities
- They will be retained and maintained until after the release of all bonds.

Findings:

The information provided meets the minimum Operations Plan Signs and Markers requirements of the Regulations.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

General Requirements

No blasting is anticipated at the site therefore, no blasting plan or pre-blasting survey is needed.

Findings:

The information provided meets the minimum reporting requirements of the Regulations for the use of explosives.

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

The affected area should include the areas on which mining and reclamation activities will occur over the life of the mine. For the SCA/ Star Point Waste Fuel Refuse Pile those areas should be within the proposed permit boundaries. Several maps show the location of the permit boundaries including maps 521.100a, 521.100b and 521.100c. A professional engineer certified all the maps.

Mining Facilities Maps

The mining facilities are shown on several maps including maps 521.100a, 521.100b and 521.100c. A professional engineer certified all the maps.

Mine Workings Maps

Due to the nature of the project, detailed mine maps are not needed. Mining will consist of removing coal mine waste (refuse) from the refuse piles and shipping it to a cogeneration facility. What the Division is interested in is the configuration of the refuse piles before mining

and the configuration after mine. The after mining configuration is shown on the reclamation maps, 542.200a and 542.200b. A professional engineer certified all the maps.

Map 521.100e, shows detailed the timing and sequence operations for the first 5 years. General timing and sequencing for the life-of-mine is also shown.

Monitoring and Sampling Location Maps

Subsidence monitoring is not applicable to this operation. No ground water monitoring will take place. Surface water monitoring other than UPDES monitoring will not be conducted, because there is no surface water sources on the proposed permit area. Raptor activity will be monitored and is shown on Wildlife Habitat map # 322.220a.

Certification Requirements

All maps submitted by the Applicant that need certification have been certified.

Findings:

The information provided in the PAP is adequate to meet the minimum requirements of the maps, plans and cross-sections requirements for the operations section of the regulations.

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:

Two reclamation scenarios are proposed: one for complete elimination of the refuse pile is referred to as the Final Reclamation Scenario. The second called Bonding Scenario Reclamation describes reclamation of the site if only a portion of the refuse is utilized for fuel.

Reclamation information for removing structures and regrading the site to approximate original contour is presented in Section 5.

All temporary hydrologic structures will be removed and reclaimed according to the reclamation plan presented under Section 540 and 550 of the permit application. The well will be transferred or sealed and the drainage pattern reestablished.

Post mining reclamation contours are presented in 542.200a and 542.200e. No permanent sedimentation ponds, impoundments or treatment facilities are planned for the permit area.

Findings:

Information provided in the application meets the minimum General Requirements of the Regulations.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

Post mining land use is decribed in Section 412.200 and Table 412.100a as wildlife, grazing and recreation. Management plans (required by R645-301-412.120) are synonymous

with the reclamation plan for the site. The plan indicates that the timing and extent of grazing use will be made after bond-release by the land owner(s). A portion of the site falls within the BLM Wattis Grazing Allotment and will be managed by that agency. Apparently the allotment includes 3,500 acres of Public Land with an allocation of about 100 Animal Unit Months (AUM's) (Section 411.120). A letter of understanding (dated December 23, 1980) from Plateau Mining Company to the BLM concerning the post-mining land use is found in Exhibit 412.200a. Communications between the BLM and SCA are taking place to arrive at a letter of agreement for this latest application (meeting between DOGM and Scott Carlson on 05/14/2003).

The application indicates that the subsoil pile may not be completely removed from land owned by Plateau Mining Corporation. A letter of concurrence (dated March 5, 2003) from PMC for this scenario is found in Exhibit 412.200a.

Findings:

The information provided is not adequate post mining land use requirements of the Regulations. Prior to approval, the Permittee must provide the following in accordance with:

R645-301-412.200, Comments from the Bureau of Land Management concerning the implementation of the proposed post-mining land use are required as part of the application.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

Measures taken to disturb the smallest practicable area and a plan to minimize disturbances and adverse impacts are discussed in sections 331 and 333. (See the discussion under Operations Plan/Fish and Wildlife).

The Applicant refers to Section 330 for details concerning enhancement measures for terrestrial habitat development during reclamation and postmining phases of operation (342.100) as well as for details on vegetation criteria (342.200). Section 330 does not include discussions of these regulations, but they are discussed in section 353. In section 330, SCA primarily focuses on raptor electrocution precautions and water quality issues.

The Permittee refers to Section 353 for details concerning enhancement measures for terrestrial habitat development during reclamation and postmining phases of operation (342.100) as well as for details on vegetation criteria (342.200).

On raptor electrocution precautions, SCA states that power lines constructed by CPMC since 1977 are "raptor-proof". It is unclear whether SCA declares power lines in the permit area raptor safe because of "current" power line design or because raptors choose to perch on trees outside the permit area. The Permittee supports their declaration of safety on a USFWS report of no sightings of droppings or electrocuted birds under CPMC lines and on a 1981 UDWR inspection of CPMC power lines.

During a meeting on January 8, 2003, the Permittee stated the following:

- There is no electrical power directed to the power lines remaining on the property.
- There is no electrical power directed to any of the outbuildings.
- The county owns all electrical power substations.

In addition to the points discussed at the meeting, the MRP states that they do not own or operate power lines in or near the permit area (pg. 28).

On water quality concerns, SCA will continue to monitor water quality and quantity of streams and ponds. The mine operator commits to providing fencing protection for wildlife from toxic materials that may be found in ponds. If water quality is compromised by mining operations or reclamation practices, research will be conducted to assess impacts and guide mitigation efforts.

Section 330 also briefly discusses threatened, endangered, and special interest plant and animal species as well as large mammal migratory passages. The mine operator commits to contact the Division if sensitive species are sighted at the permit area. A proposition to educate employees on the values of wildlife and critical seasons to wildlife is included (333; pg 300-29), although, specifics of an educational program are not provided. For large mammals, SCA agrees to provide passages if migratory paths are blocked by mining operations or structures.

Findings:

The information provided meets the minimum Reclamation Plan requirements of the regulations.

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:

The term approximate original contour restoration means that the final surface configuration shall closely resemble the general surface configuration of the land before mining. The requirement does not mean that the post-mining and pre-mining configurations are the same. Rather, the term AOC means:

- The post-mining topography shall closely resemble the slopes of the surrounding area.
- Spoil piles will be eliminated
- Highwalls will be eliminated
- Drainage systems will complement those of the surrounding area.

Since mining will consist of removing coal mine waste (refuse) the mined area will be reclaimed to the near pre-disturbed contours. The post-mining contours will be similar to those of the surrounding area, a gently sloping topography.

No spoil piles or highwalls are associated with the permit area. The reclaimed drainage systems will be constructed so that it blends into the surrounding drainage systems.

There are two reclamation plans for the SCA/Star Point Waste Fuel Refuse Pile. The first is based on the assumption that all the refuse is removed and that the Applicant reclaims according to the approved plan. The second is that the Applicant is unable to remove the coal mine waste and must reclaim refuse at the site. The Division has reviewed the first reclamation scenario and found that it meets the AOC requirements. The second scenario is similar to the reclamation plan approved by the Division for the Star Point refuse pile, which is approved. In both cases the Applicant meets the minimum requirements for meeting AOC.

Findings:

The information provided meets the minimum Approximate Original Contour requirements of the Regulations.

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

The general requirements for backfilling and grading are:

- The site meets the approximate original contour requirements.
- All highwalls, spoil piles and depressions are eliminated.
- All slopes have a safety factor of 1.3 or greater.
- The slopes minimize erosion and water pollution.
- The reclaimed area is compatible with the approved postmining landuse.

Two reclamation scenarios are proposed:

(3) the Final Reclamation Scenario will be followed if the refuse pile is completely re-mined.

(4) the Bonding Scenario Reclamation describes reclamation of the site if only a portion of the refuse is utilized for fuel.

Approximate original contours of the area are known from a 1976 aerial photographs of the site (Section 553.100) and from exploration work conducted in 2001 (Exhibit 624.210a). The plan indicates that, "to the maximum extent technically practical, the site will be backfilled and graded to achieve the assumed approximate original contour." Maps 542.200a, b & e are based on pre-existing contours for the refuse site as known from the 1976 aerial survey. Map 542.200c, Subsoil Area Bonding Scenario, the reclamation topography is based on the pre-existing contours available from the aerial photography referred to in Section 553.110 (personal communication with Scott Carlson, PSOMAS, on May 9, 2003).

As stated in the AOC section of the TA the Applicant has shown that the reclaimed site will meet the minimum requirements for achieving AOC. No highwalls or spoil piles are on site and all depressions will be eliminated. In addition, there are not settled and revegetated fill areas, or exposed coal seams. All coal mine waste will be covered. The slopes will be gentle and blend into the surrounding areas. Such slopes will help minimize erosion and water pollution both on and off site. Road cuts will be eliminated using fill from the downslope of the road. They will be mulched, roughened and seeded according to the methods described in Section 542.200. The site will be compatible with the postmining landuse. Road cuts will be eliminated using fill from the downslope of the road.

Under the Bonding Scenario grading of the substitute topsoil pile will be as shown on Map 542.200c. The narrative in Section 542.700 indicates that subsoil cover replacement depths will be similar to those described in Exhibit 542.700a CPMC 1995 Response to DOGM Midterm Review, with 3h:1v slopes and an eighteen inch cover depth over the slopes and four feet of cover over the level pile surface. This application retains the soil cover depth described, but varies from the 1995 plan by eliminating the terraces, scarifying the flat surfaces and gouging all surfaces of the pile. As with the Final Reclamation Scenario, the Division will require that reqardless of the pile height in the Bonding Scenario, all the subsoil material is moved to the site for reclamation.

If all the refuse is utilized (Final Reclamation Scenario), the reclamation topography will look like that shown on Map 542.200e, with slopes graded no steeper than 3h:1vertical. Under this Final Reclamation scenario, there will be minimal grading of the site. Compacted surfaces such as the asphalt parking lot, the building foundations, and the flat refuse surface will be scarified to a depth of twenty four inches. Buried soil in the vicinity of the office buildings will be evaluated for use as cover. Subsoil will be redistributed over the refuse pile portions of the regraded site (Table 542.200a and Map 521.100f and Map 542.200g). Map 542.200g outlines that 2.7 acres will receive 4 feet of substitute topsoil cover and 59 acres of the former refuse pile will receive the remainder of the subsoil pile with a minimum coverage of twelve inches (Section 242), for a total of up to 235,500 cu yds of substitute topsoil removed (Map 542.200g) from the subsoil storage pile.

Under the Final Reclamation scenario, there will be no subsoil left stockpiled at final reclamation (personal communication with Scott Carlson, May 23, 2003), but this is not reflected in the narrative in Section 542.700, page 500-32. The narrative states

> *"It is anticipated that in the event of the final reclamation that significantly less soil cover is required than the bonding scenario. The actual amount needed is dependent on the quality of the soil materials beneath the pile which will be determined by soil testing as described in Section 242. In addition to the required amount, the remaining salvaged subsoil materials in the subsoil pile will be redistributed for reclamation in accordance with R645-301-212."*

Less substitute topsoil cover is not acceptable for the Final Reclamation Scenario for the following reasons:

- The entire soil profile was removed from the site (down to eighty four inches) as reported on page 6 of Appendix 8-3 of Exhibit 222. The type of material beneath the salvaged soil was not indicated in the Star Point Mine Plan, but would likely be bedrock or strongly alkaline (pH 9.0) layers like the C2ca horizon or strongly cemented layers (Appendix 8-3 of Exhibit 222).
- Soil exposed after 50 years of burial beneath 100 feet of refuse is likely to be severely compacted. The plan to rip to a depth of twenty-four inches and cover with twelve inches of subsoil will provide a rooting depth of 12 to 36 inches. Such a shallow soil interfacing with a compacted zone beneath will limit root penetration and curtail plant growth, affecting diversity.
- Leachates from the refuse may have penetrated into the buried soil foundation making unsuitable growing conditions within the rooting zone described above.
- Regulation 645-301-242.100 and the Performance Standards of R645-301-250 require the Division to ensure that the topsoil material removed and stockpiled is replaced is redistributed over the disturbed area.

Consequently, the Division has required that all the 235, 000 cu yds of substitute topsoil are returned to the disturbed area under the Final Reclamation Scenario. The narrative in Section 542.700 must reflect this requirement of Regulation R645-301-242.100 *et seq*.

The plan indicates in Exhibit 112.500a that the acreage of refuse piles A, B, and C and the Disposal Area is 81.67 acres. The stockpiled subsoil (235,000 cu yds) will cover the **entire** disturbed area to a depth of about twenty inches. The stockpiled subsoil will cover the 59 acres of former refuse pile and the 2.7 acres of coal mine waste discard to a depth of twenty nine inches.

Under both scenarios, unused refuse will be placed in the former slurry ponds and compacted in four foot lifts as described in Section 528.300.321.

Previously Mined Areas

The provisions of the previously mined area allow for highwalls to be retained under limited conditions. Because there are no highwalls in the permit area, this provision does not apply.

Backfilling and Grading On Steep Slopes

Not applicable.

Special Provisions for Steep Slope Mining

Not applicable.

Findings:

The information provided does not meet the backfilling and grading requirements of the Regulations. Prior to approval, the Permittee must provide the following in accordance with:

R645-301-553 and R645-301-242.100, The application should indicate that all 235,000 cu yds of substitute topsoil will be moved to the mined out site in both the bonding and final reclamation scenarios. (Statements to the contrary appear in Section 548.700, page 500-32).

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

There are no mine openings on the proposed permit area.

Findings:

Information provided in the application meets the minimum requirements of the Mine Openings regulations.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

Two reclamation scenarios have been described. There similarities are as follows:

- Reclamation of the refuse under the either Final Reclamation or Bonding Scenario will require 235,300 loose cubic yards of substitute topsoil from the existing subsoil pile (Table 542.200a & b).
- Maps 542.200c & d shows the existing and final contours of the subsoil storage area under both Bonding and Final Reclamation Scenarios.
- Areas not currently under refuse (shop area, parking lot, etc.) will be explored for suitable substitute topsoil at reclamation (Section 224). Specific locations identified for evaluation as substitute topsoil are mentioned in Section 233.

Reclamation cross-sections for the Bonding Scenario are shown in Map 542.200d. The refuse pile, these contours are the same as those photographed in the 1976 aerial survey.

Map 542.200c illustrates the reclamation of the subsoil pile under the bonding scenario and final reclamation scenario. The proposed reclamation contours are based on the aerial photography taken in 1976, described on page 500-30 of the application and from the exploration conducted in 2001 (Exhibit 624.210a, personal communication with Scott Carlson, May 9, 2003). Map 542.200d & e illustrates the final contours of the subsoil pile and refuse pile for the final reclamation scenario.

Section 534 describes the construction of additional roads for access to the Subsoil Area to improve the operation of hauling topsoil. The designs for this road are shown on Map 534.100a. Plans for soil salvage during future road development are described in Section 232.

Compacted areas will be ripped a minimum of twenty-four inches deep prior to substitute topsoil placement (Section 242). All areas will be roughened with gouging (Section 242 and 553.100). Maps 542.200f & g outline the areas to be ripped and gouged. Basically, the flat surface of the refuse pile and severely compacted areas such as the asphalt parking lot and the building foundations will be ripped and all areas including regraded slopes will be gouged. Track-mounted equipment will be utilized for spreading substitute topsoil (Section 242 and 553.100 and Maps 542.200f &g). Areas that are not presently covered with refuse will not receive substitute topsoil cover. The substitute topsoil will be replaced at a uniform thickness.

Based on current Division recommendations (see page 69 of The Practical Guide to Reclamation in Utah, a 2000 Division publication, available on line at www.dogm.nr.state.ut.us), fertilizer will not be used. The Division has recommended achieving a healthy nitrogen balance over time with the inclusion of native legumes in the seed mix, rather than with fertilization.

The Star Point Mine was reclaimed in 2001 - 2002 and there was no fertilizer applied. The Des Bee Dove Mine was reclaimed using Treble super phosphate fertilizer incorporated into the topsoil layer with gouging. The phosphorus fertilization scheme might be refined based upon a comparison of the success of these two reclamation sites over the next ten years.

Findings:

The information provided meets the minimum Topsoil Redistribution requirement of the Regulations.

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

The Applicant states that all private roads within the permit area will be reclaimed when no longer needed. The roads will be dirt, so disposal of surfacing materials should not be a problem. Reclamation of the roads will be done by pulling fill back up from the down-slopes and placing it in the cuts. The replaced fill material will be shaped to conform to the adjacent

terrain and to meet the natural drainage pattern. Barriers of native rock or earthen berms to prevent vehicular access will block the entrances to reclaimed roads. Water bars and cross drains may be constructed across reclaimed roads to minimize erosion where necessary. The Division anticipates that the use of water bars and cross drains shouldn't be necessary with the extreme gouging described in the reclamation section.

Map 542.200a shows the reclamation surface for the site under the worst case bonding scenario all roads are removed. Map 542.200e shows the reclaimed site after full mining and all roads are removed.

Retention

No roads in the permit area are scheduled to be retained.

Findings:

The information provided meets the minimum requirements for the road system section of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

General

SCA has submitted reclamation plans in Section 540. A timetable for reclaiming hydrologic structures is provided in Table 542.100a. The applicant proposes to minimize erosion during the regrading and revegetation process by installing interim sediment control structures.

Backfilling and regrading will proceed from the upstream end of the surface facilities to the downstream end, thus allowing the sedimentation ponds to remain effective for as long as possible.

SCA has submitted several maps, including Maps 222.100a, 521a through 521j and 534b through 534f, Map731.720a and Map731.720b identifying the current surface configuration and sediment control structures. SCA proposes to establish the drainage pattern over the regraded surface as shown onMaps 542.200b through 542.200g, 761a and 761b. Reclamation channel design calculations are provided in Exhibit 761a. SCA states in Section 761, Reclamation

Channel Design, "Diversions except those associated with the county road will be removed at final reclamation. Surface runoff will follow natural flow paths approximating those which existed prior to mining." All drainages less than 1 sq. mi. are ephemeral and will be constructed using design calculations of a 10 yr.-6 hr. precipitation event. Drainages larger than one square Mile are defined as intermittent and will be designed to transmit the flows of a 100 yr.- 6 hr. precipitation event. Riprap will be laid in channels where velocities will exceed 5 feet per second. A typical cross-section of riprap design is shown on Map 542.200c. Riprap sizing calculations are provided in Exhibit 761a.

SCA provides information in Map731.720b, 761 and 542.200c showing the final designs for conveying runoff over the reclaimed refuse site. The applicant resubmitted the drawing on March 6, 2003, which depict the reclaimed drainage pattern for RWS-1 and RWS-4.

The applicant submitted Map 731.720b identifying locations of the sediment control and alternate sediment control structures on the refuse and subsoil stockpiles. The reclamation gradients are identified on several maps including Maps 542.200b through 542.200g, 761a and 761b. The plans showing the reclaimed channels for the refuse and subsoil piles are shown on Maps 761a and 761b. The proposed reclamation channels transmitting flows across the subsoil pile do not appear to have been identified by drainage basins or evaluated for discharge characteristics. The applicant needs to identify the contributing runoff area and volume that will flow down the reclaimed channels and show the calculation for channel design, including channel protection. There is currently a culvert and pipe that transmits runoff under the railroad grade and down the slope to a stock pond. The applicant needs to address how reclamation of the subsoil pile will influence those structures.

The sedimentation ponds will be utilized until the last possible moment. All impoundments will be removed at reclamation. Sedimentation ponds 5 and 9 are located in areas that will be regraded to the reclamation slope. Sedimentation pond 6 will be removed soon after the refuse pile is reshaped. Reshaping the refuse pile to AOC will divert runoff away from Pond 6.

Discharge structures are properly designed and will be removed along with the ponds at reclamation. Siltation structures, such as silt fence, water bars, straw bales, check dams, surface roughening and reseeding, will be used as interim sediment control measures. Designs of alternative sedimentation control structures are in Map 724.100. Alternate sediment controls will be implemented, as identified on Map 742.100.

No ground water monitoring will be conducted on the proposed permit or adjacent area. No surface water monitoring will be conducted on the proposed permit or adjacent area other than that conducted in accordance with the UPDES permits. The applicant will be required to summit Discharge Monitoring Report (UPDES) data into the Utah Coal Water Quality Database.

Only one unused well exists in the proposed permit area. SCA has no plans to transfer the well on the property. But Section 731.400 states that any well existing at the time reclamation begins will be transferred or reclaimed in accordance with State water law and approval by the Division and State Engineer.

The applicant has submitted reclamation drawing for the subsoil stock pile. Map 542.200c shows the reclaimed surface configuration and location of the channels. Map 761 shows how drainage area RWS-5 will drain down channel RC-5 and RWS-6 will drain down channel RC-5. Riprap will be required in channel RC-5. The riprap calculations are shown in Exhibit 761a.

Hydrologic Reclamation Plan

Table 624.200c presents information on the acid/toxic nature of the refuse. Exhibit 624.230a presents an evaluation of the acid and toxic forming properties of overburden and coal refuse material in the refuse pile. The waste has the potential to become acidic based upon pyritic sulfur values. Three of twenty samples have levels of plant available selenium in the surface three inches in exceedance of the recommended 0.1 ppm limit. Six of the twenty nine samples approach the limit for Boron established in the Division's 1988 Guidelines for the Management of Topsoil and Overburden.

During operations, the coal mine waste will be routinely sampled for characteristics of combustion, but not for acid/toxic forming properties. In the bonding spreadsheet, there is a provision for 25 samples to be taken from the site for acid/toxic analyses at final reclamation. The reclamation plan indicates in Section 542.700 that these samples will be taken from the surface of the Bonding Scenario refuse pile to monitor for acid/toxic properties just prior to final reclamation. The plan specifies one sample per acre will be taken and describes the parameters to be sampled.

Exhibit 830.100a, Bonding Scenario Reclamation Cost Estimate, outlines 25 samples to be taken for acid/ toxic evaluation and 10 other soil samples for vegetation purposes. The acid/toxic parameters will be run on soils in the 2.7 acre disposal area and the refuse pile. The other 10 samples will be drawn from areas that will receive no additional cover soil (as shown on Map 542.200g). These areas will be sampled as follows: a visual check for oil & grease; testing for soil growth parameters, and compaction (section 242).

Findings:

The information provided in the application meets the minimum Hydrologic Reclamation requirements of the regulations.

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

General

R645-301-553 requires that surface mining will be followed by rough backfilling and grading within 60 days or not more than 1500 linear feet. The application indicates that the 75 acre site will be treated as a single unit and the rough backfilling and grading of the site will be accomplished at completion of mining.

Since the mine will not be reclaimed contemporaneously, additional information on the stabilization of surface areas using interim reclamation techniques has been requested under Operations/Vegetation Information. The mine sequence map 521.121c, cited in Section 521 could not be found, but would be helpful to illustrate the operation plan and possible locations for interim treatments.

Findings:

The information provided is not adequate for the Contemporaneous Reclamation requirements of the Regulations. Further information has been requested under Operations/Vegetation Information.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

Proposed plant species and associated application rates are provided in Tables 341.210a and b. There are two seed mix lists – one is the final reclamation species list and the other is the interim species list. These lists also provide proposed seeding rates in pounds of pure live seed (PLS) per acre and number of PLS per square foot. Application rate for the final seed mix is 50.5 PLS per acre, which provides 141.66 PLS per square foot. Application rate for the interim seed mix is 15.1 PLS per acre, which provides 50.21 PLS per square foot.

For the final reclamation, the Division suggests planting container (bareroot or tublings) plants of the shrub species listed in the final seed mix. These transplants could be primarily planted on areas that are commonly difficult for seed to germinate e.g., steep slopes, southern exposures and extremely windy sites. Incorporation of the transplants in the planting method will contribute to soil stabilization (353.140) and to wildlife habitat enhancement (342.100).

The primary planting method will be broadcast seeding. Drill seeding, at half the broadcast rate, may also be used if conditions require. Drill seeding will decrease surface roughness.

Revegetation: Timing

Schedules are provided (Table 341.100a) that describe major reclamation scenarios (542.100) and revegetation strategies. The revegetation schedule proposes that the entire process from plant specifications and seed ordering to planting and mulching may require up to 7-8 months. SCA proposes that seeding will take place anytime after September 15th.

Revegetation: Mulching and Other Soil Stabilizing Practices

The MRP states that two tons per acre of Utah certified noxious weed free hay or straw will be incorporated with gouging into the growth media. The area will most likely be hydroseeded. This hydroseeding will also include 1,000 pounds per acre of wood fiber hydromulch and 120 pounds per acre of tackifier. (pg. 300-34). Erosion netting may be used in certain areas if necessary.

No irrigation is planned for this reclamation project.

Revegetation: Standards For Success

Revegetation/Cover: The Permittee's goal is to provide diversity, cover, woody species density, and productivity on all disturbed sites within their permit area. Vegetative cover of the refuse pile (sagebrush community) and growth media stockpile (pinyon-juniper) areas will be compared to the reference area for the success standards. The postmining land uses for these areas are livestock grazing and wildlife habitat. A seed mix that has 19 representative species from grass, forb, and shrub growth habits should provide vegetative cover (Table 341.210a). The seed mix contains four and one native plant species found in the sagebrush and pinyon-juniper communities within the CPMC permit area, respectively. SCA's seed mix selection was based on the success of researched reclamation and succession studies. SCA states that the selected seed mix will provide soil stabilization and cover that is equal or greater than the reference area.

Revegetation/Species Selection: The species selected will be compatible with the postmining land use and surrounding biota. SCA states that the planting distribution will maximize edge effects, cover, and other benefits to wildlife. Primary considerations of SCA are to provide rapid establishment and soil stabilization. The interim seed mix contains introduces species, and the longer-term seed mix only contains natives of the region. None of the species in either mixes are listed on the Utah Noxious Weed Act. The Division recommended deleting nitrogen fertilizer and favored inclusion of nitrogen fixing species in the seed mix (PM02A deficiency written under R645-301-243). The Permittee has not changed the long-term seed mix. The current long-term seed mix, however, contains northern sweet vetch and mountain mahogany, which are high and low nitrogen fixers, respectively. To comply with the Division's previous request, the Permittee must include a third nitrogen fixer to the long-term seed mix (R645-301-353). The Division suggests a native shrub, such as silver buffaloberry (*Shepherdia argentea*) that fixes nitrogen at a moderate rate. As a reminder, once the Permittee makes a change to the seed mix, make sure to correct the "Totals" for PLS per acre and foot (pg 300-33; Table 341.210a).

Revegetation/Timing: Revegetation procedures will be scheduled to seed in the fall after September 15th unless weather prevents access to the sites. No temporary cover crops will be applied.

Revegetation/Mulching: Mulching type and procedure is addressed in sections 242, 244 and 341.230. These sections describe the possible placement of hay or straw mulch at a rate of up to 2 tons/acre and incorporation of the mulch with gouging. The MRP must decisively state a plan for the use of straw/hay, tackifier, or other suitable related materials in adequate proportions (see R645-301-333).

Revegetation/Success Standards/Sampling: The Permittee will use a single reference area that is identified as a sagebrush-community type for both the refuse pile and subsoil stockpile. The Permittee will conduct qualitative assessment yearly and quantitative testing following an OGM authorized schedule. Standards for success will be tested at the 90% confidence level with a 10% change in the mean. SCA will measure woody species density based on the number of plants instead of the number of stems, which follows the Division's "Vegetation Guidelines". The Permittee will sample the reclaimed sites for cover and woody species density in years four, six, eight, nine, and ten following replanting. The Permittee will sample for diversity in years four, six, nine, and ten, and sample for productivity in years five, nine, and ten following replanting.

Revegetation/Success Standards: SCA delineated disturbances into pre-, post-SMCRA, and CPMC reclaimed categories. The Permittee states revegetation of the mine site has been mapped (Maps 341.220a, b, and c) according to the Bonding Scenario Reclamation and the final Reclamation (sec. 356.200). It unclear what the Permittee is referring to especially because the 341.220 map series are not included in the MRP copies located at the Division. The Permittee

must provide the referenced maps or remove all references of this map series. Standards for success that quantify cover, woody species diversity, and productivity for all three categories will be compared to the sagebrush community-type reference area. One exception is that productivity for pre-SMCRA will be compared to the estimates provided by National Resource Conservation Service. Woody species density for all three categories will be compared to the standard of 2000 plant per acre.

For areas disturbed post-SMCRA, revegetation success will be based on the effectiveness of the plants for grazing and wildlife habitat. For areas disturbed pre-SMCRA and redisturbed post-SMCRA, success will be based on the effectiveness of the plants to control erosion and on the percent cover compared to the area pre-redisturbance.

In 1981, the sagebrush community reference area was chosen to represent the overall standard for success. Other community types were removed as classified reference areas. Even though the growth media stockpile is in a pinyon-juniper community, the sagebrush reference area will still be used to evaluate success. CPMC removed the pinyon-juniper community type as a reference area because of low cover and species diversity.

Map 321.100c provides the sagebrush reference area location. The owner of the property will not fence off the reference area or post signs. The owner believes that fencing and signs would divert attention to the site, which may increase vandalism to the site.

T-posts currently mark the reference area. The area is flanked by two roads. One well traveled road leading to the subsoil stockpile and the other an unmaintained BLM road leading to an unknown destination. On a site visit (December 2, 2002), the reference area T-posts were partially buried. The reference area had also been disturbed by vehicles repeatedly driving over the southwest corner. The Division recommends protecting the area especially because the area is difficult to protect using the current method (T-posts). The Division may request to reassign a different site in order to provide an adequate reference area.

Sampling techniques and analysis procedures from year 1981-1990 are provided for the sagebrush community predisturbance and reference areas. Results show that there was no significant difference between the two areas.

Revegetation/Liability Period: SCA will be responsible for successful vegetation for a minimum of 10 years following the seeding of the disturbed areas. Husbandry practices approved by the Division will be applied as needed.

Findings:

Information provided in the application meets the minimum Reclamation Plan Revegetation Performance Standard requirements of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

Erosion control measures include surface roughening, mulching, and gouging (Section 242). Map 742.100 Alternate Sediment Controls illustrates the details of construction of surface roughening/benching, silt fencing, rock check dams, sediment traps water bars, berms, and straw bale check dams. As stated in Section 542.200, under the heading "Sedimentation Pond Removal and Interim Sediment Control," use of these structures during final reclamation will be utilized in the locations shown on Maps 731.720a (drainages) and 731.720b (culverts), with field changes made as necessary; Map 542.200c shows proposed locations on the Topsoil stockpile. Installation of straw bales and silt fences will be according to the illustration in Figure 542.200a.

The application indicates that rocks found during excavation of the refuse pile may be separated and stockpiled for final placement on the reclaimed slopes (Section 528.300-321). The use of large coarse fragments on the surface of the reclaim site will help prevent erosion of the substitute topsoil that is high in clay and susceptible to erosion. The rock fragments will also help to blend the site with the undisturbed surroundings.

Findings:

The information provided in the application meets the minimum Stabilization of Surface areas requirement of the regulations.

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

The Applicant commits in section 515.300 to follow the requirements of R645-301-515.300 in the event of temporary cessation. The general commitments are to notify the Division if temporary cessation will last more than 30 days and to secure the site.

In section 541 of the PAP, the Applicant commits to reclaim the site once mining activities have been completed.

Findings:

The information provided meets the minimum Cessation of Operations requirements of the Regulations.

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:

Bonded Area Map

The Division usually considers the bonded area to be the same as the disturbed area boundaries.

Reclamation Backfilling And Grading Maps

The project has two possible backfilling and grading plans. The worst case scenario is base on the assumption that as soon as the permit is issued the site will go into permanent reclamation. In that case, the refuse pile would be covered with substitute topsoil. Plans for the worst case scenario are shown on Map 542.200a with cross section on 542.200b. The reclamation plans for the best case scenario are shown Map 542.200e. The plans for the substitute soil area are shown on Map 542.200c and542.200d.

Reclamation Facilities Maps

No facilities at the site will exist after reclamation.

Final Surface Configuration Maps

The project has two possible final surface configurations. The worst case scenario is base on the assumption that as soon as the permit is issued the site will go into permanent reclamation. In that case, the refuse pile would be covered with substitute topsoil. Plans for the worst case scenario are shown on Map 542.200a with cross section on 542.200b. The reclamation plans for the best case scenario are shown Map 542.200e. The plans for the substitute soil area are shown on Map 542.200c and542.200d.

Reclamation Surface And Subsurface Manmade Features Maps

No surface features are planned nor are any subsurface manmade features known for the site.

Reclamation Treatments Maps

No permanent reclamation treatment facilities are schedule for the site.

Certification Requirements.

Maps and cross sections were certified by a registered professional engineer, as required.

Findings:

The information provided in the PAP is considered adequate to meet the minimum requirements of the maps, plans and cross-sections for reclamation section of the regulations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Form of Bond

The Division will review the form of the bond after the Permittee has acquired the bond but before the permit has been issued.

Determination of Bond Amount

The Division reviewed the information for reclamation cost estimates in the PAP. Since the Division has not approved the reclamation plan, the Division cannot complete the bond calculations. When the reclamation plan is approved the Division will calculate the bond amount.

Terms and Conditions for Liability Insurance

The Division will review the liability insurance policy after the policy has been acquired but before the permit has been issued.

Findings:

On approval of the Bonding Scenario reclamation plan, the Division will calculate the bond amount.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA)

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

Analysis:

The proposed permit area already exists in the Star Point Mine CHIA. All cumulative impacts are already addressed in the current CHIA. Updates to the CHIA will be required for this permit.

Findings:

Information provided by the Applicant is sufficient to analyze cumulative hydrologic impacts of the proposed permit area.