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110. LEGAL, FINANCIAL, COMPLIANCE AND INFORMATION.

111.100-400. INTRODUCTION.

Sunnyside Cogeneration Associates (SCA) has acquired the Wattis Coal Refuse Pile located in Sage Brush Canyon. The refuse pile has accumulated from the disposal of coal mine waste from the underground coal mining operation at Star Point Mine, which has most recently been owned and operated by Cypress Plateau Mining Corporation (CPMC), a subsidiary of RAG American Coal Company. Cypress Plateau Mining Corporation has changed its name to Plateau Mining Corporation. All references to Cypress Plateau Mining Corporation or CPMC infer Plateau Mining Corporation or PMC.

The Star Point Mine is currently closed and CPMC is in the process of reclaiming much of the disturbed areas near the refuse pile. SCA has purchased certain properties and easements associated with the coal refuse pile along with a few surface facility buildings near the refuse pile. SCA, therefore, has submitted this mining and reclamation plan and will be the permittee for the mining activities on the property identified within the designated permit boundaries. An area, less than a quarter mile north of the refuse pile was used as subsoil storage area for the Refuse Pile Expansion Area. SCA has acquired the rights to the soil and has designated this area as its reclamation Subsoil Area and has included it within the new permit boundary.

The SCA mining operation will consist of removing refuse material and hauling it for use in the SCA power cogeneration plant at Sunnyside, Utah. The refuse material will be used as an energy source to supplement its power generation. SCA's alternative energy project has been approved by the Federal Energy Regulatory Commission as a Qualifying Facility, based on the usage of refuse material as fuel in its fluidized-bed combustion boiler.

The Utah Division of Oil Gas and Mining (DOGM) considers the removal of the refuse pile as a Surface Coal Mining Operation and regulates as such under the provisions of Utah Administrative Code (UAC) R-645-301 "Coal Mine Permitting". However, many of the standard issues that generally apply to a surface coal mine will not apply to this operation since the pile is exposed and no stripping of any overlying strata or overburden is required.

Final reclamation is anticipated to begin upon the cessation of mining and excavation of the refuse pile. It is anticipated that the cessation of mining operations would occur after the refuse pile has been removed (with the exception of any reject coal mine waste or excess spoil which will have been placed in the proper disposal area). However, for the purpose of determining an estimated reclamation bond cost in accordance with the requirements of R-645-301-800, a second reclamation scenario is described which assumes that reclamation would begin under an assumed bond forfeiture condition under assumed conditions, which could exist at some time during the current permit term. In this plan, this scenario is called "Bonding Scenario Reclamation" while the actual anticipated reclamation is called "Final Reclamation".

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This permit application is divided into eight sections per major code divisions covering: general conditions, soils, biology, land use and air quality, engineering, geology, hydrology, and bonding. The focus of this section of the permit application is general conditions, which is provided to meet the requirement of Section 100 of UAC R-645-301.

Psomas has relied on data and maps from previous approved permits for Star Point Mines. This permit application has been revised to reflect the SCA - Star Point Permit Area.

The format followed is in compliance with State of Utah guidelines, which follow OSM prescribed format.

112. IDENTIFICATION OF INTERESTS.

112.100. Statement as to Type of Entity.

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 the sections that follow.

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112.200-210. Information Regarding the Applicant.

Additional information regarding the applicant may be obtained by contacting:

Plant Manager,	Plant Engineer,
Sunnyside Cogeneration Associates	Attn: Rusty Netz
Attn: Michael J. Blakey,	One Power Plant Road,
One Power Plant Road,	P.O. Box 159
P.O. Box 159	Sunnyside, UT 84539
Sunnyside, UT 84539	EIN: 52-2318424
Phone: (435) 888-4476	Phone: (435) 888-4476
Fax: (435) 888-2538	Fax: (435) 888-2538

Utah Counsel	Environmental Manager	General Manager
Fred W. Finlinson, Esq.	Attn: Ramiro Garcia,	Kendall Reed
Brian W. Burnett, Esq.	COSI	ACI
Callister Nebeker & McCullough	95 Enterprise, Suite 300	RR2 Box 56, Highway 36
10 East South Temple	Aliso Viejo, CA 92656,	Clarion, PA 16214
Salt Lake City, UT 84133	Phone: (949) 425-4755	Phone: (814) 226-8001
Phone: (801) 530-7300	Fax: (949) 852-1720,	Fax: (814) 226-7909

Deleted: Local
Deleted: Environmental Coordinator
Deleted: Plant Manager
Deleted: Safety /
Deleted: Neil Nelson
Deleted: 775 Sunrise Ave. S-200
Deleted: Roseville, CA 95661
Deleted: (916) 783-8616
Deleted: (916) 783-3831

112.220. Information Regarding the Resident Agent.

Sunnyside Cogeneration Associates
Attn: Michael J. Blakey, Plant Manager
P.O. Box 159, Sunnyside, UT 84539 (mailing address)
One Power Plant Road, Sunnyside, UT 84539 (street address)
Phone: (435) 888-4476
EIN: 52-2318424

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112.230. Information Regarding Abandoned Mine Land Reclamation Fee.

A letter was sent to the Office of Surface Mining on June 6, 2003 requesting a no value/fee determination for the Starpoint Mine Coal Refuse Pile. A copy of this letter is included in Exhibit 112.230a.

Any required Abandoned Mine Land Reclamation Fees will be paid by:

Sunnyside Cogeneration Associates
Attn: Plant Manager
P.O. Box 159
Sunnyside, Utah 84539
EIN: 52-2318424
Phone: (435) 888-4476

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On July 27, 1994, the Office of Surface Mining found that the material being burned in the waste coal fired small power production facility operated by Sunnyside Cogeneration Associates was not subject to reclamation fees. The material being excavated at the Star Point Waste Fuel facilities is similar in nature and is being burned at the same power facility. It is likely that the same exemption regarding payment of AML fees will be granted. A copy of the 1994 letter is included in Exhibit 112.230a.

112.300-330. Information Regarding "Owners" and "Controllers".

The Applicant, SCA, is a Utah joint venture. SCA holds the contracts, property, and permits for the project in its name. Because the joint venture is essentially a partnership between Sunnyside Holdings I, Inc. and Sunnyside II, L.P., SCA has no corporate information of its own. Therefore, the information required under regulation 112.300- 330 is provided for the joint venture partners, Sunnyside Holdings I, Inc. and Sunnyside II, L.P., and their parent or controlling corporations.

The information relevant to Sunnyside II, L.P. traces to the parentage of CP Sunnyside I, Inc, and the information relevant to Sunnyside Holdings I, Inc. traces to the parentage of Colmac Sunnyside, Inc., as follows:

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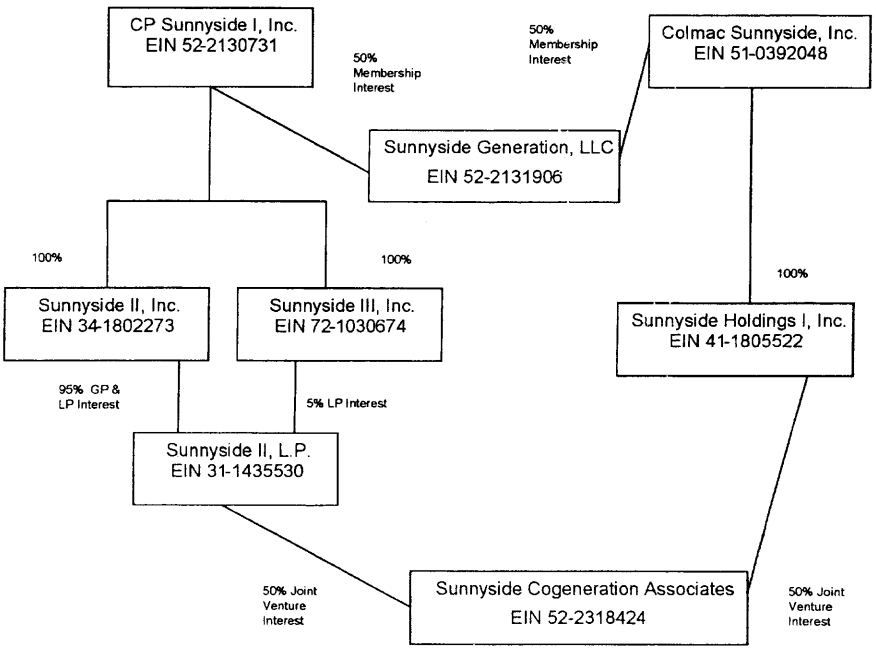
Sunnyside Organization Chart



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CP Sunnyside I, Inc:

Directors: John T. Long
Steven B. Gross

Officers: John T. Long — Senior Vice President CGG, President CPG

Stephen B. Gross — Vice President
Robert V. Escalante — Vice President

Steven L. Miller — Secretary

Daniel L. Haught — Treasurer

The address for the officers and directors is 111 Market Place, Suite 200, Baltimore, Maryland 21202. All Directors and Officers were elected in 2003.

CP Sunnyside Inc. is the Managing Member of Sunnyside Generation, LLC.

Sunnyside II, Inc. & Sunnyside III, Inc.:

Directors: John T. Long
Stephen B. Gross

Officers: John T. Long — Senior Vice President CGG, President CPG

Stephen B. Gross — Vice President
Robert V. Escalante — Vice President

Steven L. Miller — Secretary

Daniel L. Haught — Treasurer

The address for the officers and directors is 111 Market Place, Suite 200, Baltimore, Maryland 21202. All Directors and Officers were elected in 2003.

Colmac Sunnyside, Inc.:

Directors: Willis S. McLeese
Greg B. Lawyer
Gilbert B. Warren

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Greg B. Lawyer	President
Robert S. McLeese	Secretary and CFO
Gilbert B. Warren	Assistant Secretary

The address for the officers and directors is 103 Springer Building, 3411 Silverside Road, Wilmington, DE 19810. The Directors' and Officers' start date was October 15, 1999.

Sunnyside Holdings I, Inc.

Directors:	Willis S. McLeese Greg B. Lawyer	
Officers:	Willis S. McLeese	Chairman and CEO
	Greg B. Lawyer	President and COO
	Robert S. McLeese	Secretary and CFO

The address for the officers and directors is 103 Springer Building, 3411 Silverside Road, Wilmington, DE 19810. The Directors' and Officers' start date was August 27, 1999.

112.340-420. Further Information Regarding Owners and Controllers.

Neither Sunnyside II, L.P., nor Sunnyside Holdings I, Inc., nor their owners or controllers, has owned or controlled a coal mining and reclamation operation in the United States within five years preceding the date of this application, except for the following, nor do they have any interest in any pending coal mine operation permit applications.

Sunnyside Cogeneration Associates
Sunnyside Refuse/Slurry
Permit # C/007/035

112.500. Surface and Mineral Property.

The applicant, Plateau Mining Corporation, and the United States Bureau of Land Management (BLM) own surface properties within the permit area. SCA has

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purchased the waste coal pile located within the permit area pursuant to the Bill of Sale dated January 31, 2002 included in Exhibit 114.200a. The southern portion of the permit area, owned by the BLM, has been made available to SCA as detailed in the Assignment and Assumption of Federal Right-of-Way included in Exhibit 114.100a. Plateau Mining Corporation owns the surface property where SCA's substitute topsoil pile is stored. There are no purchasers of record under a real estate contract for the property to be mined.

Right of Entry documents have been recorded that reflect interest in the property to be mined. These easements are reflected on the Star Point Permit Boundary that is shown in Exhibit 111.100a. Owners of contiguous property to the permit area are shown on the Star Point Permit Boundary shown in Exhibit 111.100a. A summary table of land classifications within the Permit Area is included in Exhibit 112.500a.

Plateau Mining has assumed responsibility for paying royalties associated with Star Point Waste Coal Pile.

112.600. Contiguous Property.

The name and address of each owner of record of all property (surface and subsurface) contiguous to any part of the proposed permit area:

Plateau Mining Corporation 9100 E. Mineral Circle Englewood, CO 80112	United States Government Bureau of Land Management Price, UT 84501	Carbon County 120 East Main Street Price, Utah 84501

112.700. MSHA Numbers.

The name of the mining operations for which this application is submitted is:
STAR POINT WASTE FUEL
Mine I.D. Number 42-02334

On January 28, 2004 SCA received a letter from MSHA officially abandoning the Coarse Refuse pile (formerly identified as ID No. 1211-UT-09-02334-01), see exhibit 513. MSHA Inspection and reporting requirements will be focused on the surface mining operation and will follow a semi-annual inspection frequency.

112.800. Applicants Interest in Contiguous Lands.

Exhibit 111.100a, shows ownership interests in lands contiguous to the permit area. The applicant has no leasehold interest, options, or pending bids on any of these lands. The existing permit application is not limited to any future by-pass acquisitions, lease modifications, or areas designated in expressions of interest, or areas under investigation that are contiguous to the present permit application boundaries.

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112.900. Applicable Information Resubmittal.

SCA, upon application approval, will submit any applicable, updated or corrected information previously submitted under R645-301-112.100 through R645-301-112.800.

113. VIOLATION INFORMATION.

113.100-250. Suspensions and Revocations.

Neither the Applicant, nor any of its subsidiaries, affiliates, or persons controlled by or under common control with the Applicant 1) has had a federal or state mining permit suspended or revoked in the last five years, or 2) has forfeited a mining bond or similar security deposited in lieu of bond.

113.300-350 Violations and Unabated Cessation Orders

Sunnyside Cogeneration Associates received one notice of violation from the Utah Division of Oil, Gas and Mining (DOGM) within the three year period prior to the application for Permit Renewal. Information regarding these violations is described below:

There have not been any unabated cessation orders or unabated air and water quality violation notices received by any coal mining and reclamation operation owned or controlled by either the Applicant or by any person who owns or controls the Applicant.

Star Point Waste Fuel – C/007/042, NOV# N04-49-3-1, Requirements of the violation have been satisfied.

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114. RIGHT-OF-ENTRY INFORMATION.

114.100. Description of Legal Documents.

Documents included as Exhibits114.100a and 114.100b support SCA's right of entry and operation in the permit area. That right is not the subject of pending litigation. These documents include:

- Special Warranty Deed from Plateau Mining Corporation ("Plateau") to SCA executed 1/30/2002
- Assignment and Assumption of Federal Right-of-Way from Plateau to SCA assigning the BLM Right-of-Way No. UTU-47965 executed 1/30/2002
- Right-of-Way from Plateau to SCA regarding access from County Road 290 to the Wattis Branch railroad grade executed 1/30/2002
- Right-of-Way from Utah Railway Company to Plateau regarding the Wattis Branch railroad grade executed 1/31/2002

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- Assignment and Assumption of Private Right-of-Way from Plateau to SCA assigning the Utah Railway Right-of-Way to SCA executed 1/29/2002

- Memorandum of Surface Use Agreement regarding the "Reclamation Stockpile"

- Quitclaim Deed to Carbon County land associated with power substation.

114.200-230. Private Mineral Estate.

Applicant was conveyed the waste coal pile sitting on the surface property pursuant to the Bill of Sale for such pile purchased January 31, 2002. A copy of the Bill of Sale is included as Exhibit 114.200a.

114.300. Adjudication of Property Rights Disputes.

It is not construed that the Division has the authority to adjudicate property rights disputes.

115. STATUS OF UNSUITABILITY CLAIMS.

115.100. Unsuitable Areas.

The SCA - Star Point Permit Area is not within an area designated unsuitable for coal mining and reclamation operations or is within an area under study for designation in an administrative proceeding under R645-103-300, R645-103-400, or 30 CFR Part 769.

115.200. Exemptions.

This section is not applicable because Applicant does not claim the exemption described in R645-103-333.

115.300. Public Roads.

The only public road within 100 feet of the permit is County Road 290 that passes adjacent to the refuse pile site on the North side heading in a east-west direction as shown on Map 521.100a and 521.100b. It will remain in place after post mining reclamation to provide access to land above the mine area, as required by the post mining land use plan.

In compliance with R645-103-230 through R645-103-238, Carbon County has authorized public access to Country Road 290. Also, an opportunity for public hearing was provided with respect to the mining with 100 feet of the road. A meeting, which was scheduled on April 28, 1992 at the Days Inn in Price, Utah wherein protests could be heard, related to the proximity of the mine to County Road 290. The notice was published in the Sun Advocate on April 14, 1992 where after the meeting was cancelled due to lack of interest. A copy of the published "public

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notice" is included in Exhibit 115.300a and a letter from Carbon County explaining public access is included in Exhibit 115.300b.

116. PERMIT TERM.

116.100. Start and Termination Dates.

Surface mining operations will commence immediately upon permit approval and are anticipated to extend 20-30 years. Detailed operations plans are included in Section 520 of this permit. Site reclamation will begin at the end of the mining period and the initial earthwork and seeding are scheduled to be completed with one year. Detailed reclamation plans are included in Section 540 of this permit.

116.200-220. Term in Excess of Five Years.

The permit application is for a term of 5 years.

117. INSURANCE.

117.100. Liability Insurance.

A copy of the certificate of liability insurance is attached as Exhibit 117.100a.

117.200. Proof of Publication.

A newspaper advertisement, Exhibit 117.200a, has been published in the "Sun Advocate" for four (4) weeks following the determination of completeness. Proof of publication of the newspaper advertisements is given in Exhibit 117.200b.

117.300. Shared Facilities.

Surface mined materials will be transported to and processed in areas identified and permitted by SCA under the following permit:

Sunnyside Cogeneration Associates
Sunnyside Refuse/Slurry
Permit # C/007/035

Plateau Mining Corporation has previously reclaimed 3.6 acres under the following permit which lie within this permit boundary and will be monitored in accordance with their approved permit.

Plateau Mining Corporation
Star Point Mines
Permit # C/007/006

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118. APPLICATION FEE.

The required filing fee of $5.00 is submitted with this Permit Application.

123. VERIFICATION.

The required verification statement is included as Exhibit 123.000a.

130. REPORTING OF TECHNICAL DATA.

PSOMAS, in the preparation of this permit document, has compiled and relied on data and maps from previous permit applications and previously approved permits for the Plateau Mining Corporation (PMC) mining activities permitted by Permit ACT/007/006 for the Star Point Mines issued by the Utah Division of Oil, Gas, and Mining on January 27, 1982, renewed on August 7, 1987, January 28, 1992 and September 27, 1996 with subsequent approved revisions.

All technical data in this application have been analyzed under the requirements of the Rules. Many of the technical analyses have been done in accordance with the guidelines issued by the State of Utah. SCA personnel and their representatives have met with the Division to discuss pertinent aspects of mining and reclamation plans.

Information regarding preparers of supporting studies can be found in the representative chapter of the Permit document.

The preparers of supporting studies include:

Section 200 –

Report of Soils for Phased Expansion of the Existing Coal Processing Waste Pile – Endangered Plant Studies, Inc., Orem Utah

Prime Farmland, NRCS

Section 300 –

Aquatic Resources of Plateau Mine Permit Area – Kaiser Engineers, Inc., Oakland, California

Section 400 –

Historical and Cultural Resources – Archeological-Environmental Research Corporation, Salt Lake City, Utah

Section 500 –

Star Point Mine's Refuse Pile Evaluation Operation and Monitoring Plan – Vaughn Hansen Associates, Salt Lake City Utah

Coal Refuse Pile Study – Chen and Associates Inc., Salt Lake City, Utah

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Cyprus Plateau Mining Company Response to DOGM Midterm Review – Hansen, Allen & Luce, Inc., Midvale, Utah

Section 600 –

Reserve Assessment of Star Point Coal Refuse Site – Miltech Energy Services, Inc., Ligorier, PA

Evaluation of Toxic and Acid Forming Properties – Kent A. Crofts, Yampa, Colorado

Section 700 –

Stability Analysis of Sedimentation Pond No. 9 Banks – Chen and Associates Inc., Salt Lake City, Utah

140. MAPS AND PLANS.

Maps submitted herewith are presented in a consolidated format, to the extent possible, and include the types of information that are set forth on U.S. Geological Survey of the 1:24,000 scale series. The maps of adjacent areas will clearly show the lands and waters within those areas and are at the scale determined by DOGM. The maps and cross-sections associated with this Permit are listed in the General Table of Contents.

150. COMPLETENESS.

This Permit Application contains the information required by R645-301; R645-302 is not applicable.

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510. INTRODUCTION

Sunnyside Cogeneration Associates (SCA) has acquired the Wattis Coal Refuse Pile located in Sage Brush Canyon. The refuse pile has accumulated from the disposal of coal mine waste from the underground coal mining operation at Star Point Mine, which has most recently been owned and operated by Cypress Plateau Mining Corporation (CPMC), a subsidiary of RAG American Coal Company. Cypress Plateau Mining Corporation has changed its name to Plateau Mining Corporation. All references to Cypress Plateau Mining Corporation or CPMC infer Plateau Mining Corporation or PMC.

The Star Point Mine is currently closed and CPMC is in the process of reclaiming much of the disturbed areas near the refuse pile. SCA has purchased certain properties and easements associated with the coal refuse pile along with a few surface facility buildings near the refuse pile. SCA, therefore, has submitted this mining and reclamation plan and will be the permittee for the mining activities on the property identified within the designated permit boundaries. An area, less than a quarter mile north of the refuse pile was used as subsoil storage area for the Refuse Pile Expansion Area. SCA has acquired rights to the soil and has designated this area as its reclamation Subsoil Area and has included it within the permit boundary.

The SCA mining operation will consist of removing refuse material and hauling it for use in the SCA power cogeneration plant at Sunnyside, Utah. The refuse material will be used as an energy source to supplement its power generation. SCA's alternative energy project has been approved by the Federal Energy Regulatory Commission as a Qualifying Facility, based on the usage of refuse material as fuel in its fluidized-bed combustion boiler.

The Utah Division of Oil Gas and Mining (DOGM) considers the removal of the refuse pile as a Surface Coal Mining Operation and regulates as such under the provisions of Utah Administrative Code (UAC) R-645-301 "Coal Mine Permitting". However, many of the standard issues that generally apply to a surface coal mine will not apply to this operation since the pile is exposed and no stripping of any overlying strata or overburden is required.

Final reclamation is anticipated to begin upon the cessation of mining and excavation of the refuse pile. It is anticipated that the cessation of mining operations would occur after the refuse pile has been removed (with the exception of any reject coal mine waste or excess spoil which will have been placed in the proper disposal area). However, for the purpose of determining an estimated reclamation bond cost in accordance with the requirements of R-645-301-800, a second reclamation scenario is described which assumes that reclamation would begin under an assumed bond forfeiture condition under assumed conditions, which could exist at some time during the current permit term. In this plan, this scenario is called "Bonding Scenario Reclamation" while the actual anticipated reclamation is called "Final Reclamation".

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Psomas has relied on data and maps from previous approved permits for Star Point Mines. This permit application has been revised to reflect the SCA - Star Point Permit Area.

This permit application is divided into eight sections per major code divisions covering: general conditions, soils, biology, land use and air quality, engineering, geology, hydrology, and bonding. The focus of this section of the permit application is engineering, which is provided to meet the requirement of Section 500 of UAC R-645-301.

511. GENERAL REQUIREMENTS.

Descriptions of the coal mining operations and reclamation plans, impacts to the environment, and design criteria are contained in this section.

512. CERTIFICATION.

512.100. Cross Sections and Maps

All required maps and cross sections are certified by a qualified, registered, professional engineer or by a surveyor with assistance from experts in hydrology and geology.

A map of soils and locations of soil samples and exploratory borings of the SCA - Star Point Permit Area pile are shown on Map 222.100a. A map of disturbed area soils, Pre-SMCRA and Post-SMCRA, is shown on Map 222.100b.

A map of vegetation types and vegetation of disturbed areas are shown on Maps 321.100a and 321.100b. Wildlife habitats in the areas are shown on Map 322.220a. Vegetation reclamation plans are shown on Maps 341.210a and 341.210b.

Surface facilities and features are shown on Maps 521.100a, 521.100b, and 521.100c. Operation plans and cross sections for reclamation of the coal refuse pile are shown on Maps 521.100d and 521.100e. Plans and cross sections for the design of the proposed disposal area is shown on Map 521.100f.

Surface configurations are shown on Maps 521.100g through 521.100j.

Geologic maps and cross sections are shown on Map 624.100a and Figure 624.100a.

Hydrology is shown on Maps 722.100a, 722.100b, 731.720b, and 731.720e. Groundwater and surface water rights are shown on Maps 731.800a and 731.800b. Details on the design of Ponds 5, 6, and 9 are shown on Maps 733.120e, 733.120f, and 733.120j. A map of the reclamation watershed delineation is shown on Map 761c.

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512.200. Plans and Engineering Designs.

All required plans and engineering designs are certified by a qualified, registered, professional engineer, or an appropriate variance has been obtained.

Coal processing refuse pile designs are located in Section 500 of this permit application.

Impoundment designs are located in Sections 500 and 700 of this permit application.

Primary Road designs are located in Section 500 of this permit application.

513. COMPLIANCE WITH MSHA REGULATIONS AND MSHA APPROVALS.

SCA will comply with all applicable MSHA Regulations and obtain all required MSHA Approvals. The MSHA identification number for the mine operation is 42-02334. Documents included in Exhibit 513 detail the abandonment of the Coarse Refuse Pile (formerly 1211-UT-09-02334-01). Currently there are no specific surface facilities with individual MSHA identification numbers and semi-annual MSHA inspections will focus on the surface mining operations.

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514. INSPECTIONS.

All required engineering inspections will be conducted by a qualified, registered, professional engineer or other qualified professional specialist under the direction of the professional engineer. Unless a variance is received, impoundments will be inspected regularly at least yearly until removal of the structure or release of the performance bond, and a certified report will be delivered annually to the regulatory agency as required under 514.230. Inspection reports, including colored photographs when necessary, will be certified by the professional engineer "that the refuse pile has been constructed and maintained as designed and in accordance with the approved plan and R645 rules" and provided to the Division. Copies of all reports will be retained at the mine office. Regular quarterly inspections of other impoundments, not subject to MSHA, 30 CFR 77.216, will be conducted by a qualified person designated by SCA.

515. REPORTING AND EMERGENCY PROCEDURES.

515.100. Slides and Other Damage.

At any time a slide occurs which may have a potential adverse effect on public property, health, safety, or the environment, SCA will notify the Division by the fastest method available and will comply with remedial measures required by the Division. SCA reserves the right to conduct clean-up operations using standard safety and construction procedures.

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515.200. IMPOUNDMENT HAZARDS.

At any time there is a potential impoundment hazard, SCA will notify the Division by the best available means. The Division will be informed of the emergency procedures formulated for public protection and remedial action.

515.300. Temporary Cessation of Operations.

It is not anticipated that there will be a temporary cessation of operations. If, however, this occurs, SCA understands that temporary abandonment does not relieve SCA of its obligation to comply with this permit.

In the event of a temporary cessation of operations all surface facilities will be secured and maintained until operations resume under an approved permit.

Before any cessation of operations has extended 30 days or as soon as it is known that a cessation will extend beyond 30 days, SCA will submit a notice of intention to cease or abandon operations to the Division. This notice will include a statement of the exact number of surface acres within the SCA - Star Point Permit Area prior to cessation or abandonment. The statement will also include a description of the kind and extent of reclamation that has been done within the SCA - Star Point Permit Area and the kind and extent of activities that will continue during the temporary cessation.

516. PREVENTION OF SLIDES.

The removal of the coal refuse pile is a non-typical surface mining operation since it does not involve strip mining of coal seams. Therefore, barriers for the purpose of slide prevention near coal seams will not be used within the SCA - Star Point Permit Area.

520. OPERATION PLAN.

521. GENERAL.

The following sections contain plans, appropriate maps, cross sections, narratives, descriptions, and calculations in accordance with the requirements relevant to this section. Practices will be limited to excavation and handling of coal mine waste to segregate non-combustibles, and redisposing such materials in accordance with R645-301-536. Mining operations at SCA are anticipated to continue beyond the year 2022. The sequence of mining is shown on Map 521.100d and 521.100e.

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521.100. Cross Sections and Maps.

Maps and cross sections are provided to meet the requirements of this permit application. The maps that apply to this section are listed below:

Map 521.100a, Refuse Pile West Side Surface Features
Map 521.100b, Refuse Pile East Side Surface Features
Map 521.100c, Subsoil Area Surface Features
Map 521.100d, Refuse Pile Operation Plan Overview
Map 521.100e, Operation Plan Cross Sections
Map 521.100f, Proposed Disposal Area Design
Map 521.100g, Existing Facilities and Surface Configuration in 2003
Map 521.100h, Existing Facilities and Surface Configuration in 2003
Map 521.100i, Subsoil Area Existing Facilities and Surface Configuration in 2003
Map 521.100k, Existing Structures and Surface Configuration in 2005
Map 521.100l, Existing Structures and Surface Configuration in 2005

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521.112. Existing or Previously Surface Mined Areas.

The extents of the refuse pile as shown on Maps 521.100a and 521.100b is the area which surface mining activity will occur. A map of the areas disturbed from mining operations before regulations of SMCRA are shown on Map 222.100c.

521.120. Existing Surface and Subsurface Facilities/Structures and Features.

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The existing surface facilities/Structures and features within the SCA - Star Point Permit Area are shown on Maps 521.100a, 521.100b, and 521.100c. There are no subsurface facilities or features within the SCA - Star Point Permit Area.

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521.121. Facilities/Structures in and Within 1,000 Feet of the Permit Area.

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The locations of facilities/Structures within 1,000 feet of the SCA - Star Point Permit Area are shown on Maps 521.100a and 521.100b.

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521.122. Surface and Subsurface Man-Made Features within the Permit Area.

The locations of surface man-made features within, passing through, or passing over the proposed SCA - Star Point Permit Area are presented on Maps 521.100a and 521.100b. There are no sub-surface man made features within the SCA - Star Point Permit Area.

There are no oil or gas wells currently within the SCA - Star Point Permit Area. An abandoned water well is in SCA - Star Point Permit Area but is no longer used due to poor production.

521.123. Public Roads in or within 100 Feet of the Permit Area.

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The only public road within 100 feet of the permit is County Road 290, which passes adjacent to the refuse pile site on the North side heading in an east-west direction as shown on Maps 521.100a and 521.100b.

521.124. Existing Facilities within the Permit Area.

Locations and sizes of existing areas of spoil, waste, coal development waste, and non-coal development waste, and non-coal waste disposal, dams, embankments, and other impoundments, within the SCA - Star Point Permit Area are presented on Maps 521.100a and 521.100b.

521.125. Sedimentation Ponds and Impoundments.

Locations of all sediment ponds, impoundments, waste banks, waste dams, and embankments are shown on Maps 521.100a and 521.100b.

521.130. Landowners and Right of Entry and Public Interest Maps.

The boundaries of lands and names of present owners of record of those lands, surface and sub-surface, included in or contiguous to the SCA - Star Point Permit Area, are presented in Exhibit 111.100a. SCA will conduct surface mining operations within 100 feet of the right-of-way line of County Road No. 290, which provides access to Gentry Mountain. The operation of removing coal refuse from the site should not significantly impact traffic on the County Road.

The Subsoil Area can be accessed through a mining road and an easement. As shown in Exhibit 114.100a, SCA has acquired the necessary rights to access the Subsoil Area.

521.140. Mine Maps and Permit Area Maps.

The boundaries of the affected Permit Area are presented on Maps 521.100a and 521.100b, and 521.100c.

There are no underground workings as part of the proposed surface mining operation of the refuse pile nor are there any areas in the permit boundary where previous underground workings have occurred. Therefore, there are no related subsidence areas within the SCA - Star Point Permit Area.

The proposed disposal area is shown in Map 521.100a and the design for spoil placement is shown in Map 521.100f. For further information regarding this site, see response to R645-301-528.300.

521.150. Land and Surface Configuration Maps.

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The maps and figures of this permit application clearly present surface contours of the SCA - Star Point Permit Area. Maps 521.100g, 521.100h, and 521.100i show the existing surface configuration in 2003. Maps 521.100j shows the Pre-SMCRA surface configuration.

521.160-161. Maps or Cross Sections of Proposed Features.

All buildings, utility corridors, facilities, and cross sections are shown on Maps 521.100a, 521.100b, and 521.100c.

521.162. Area Affected According to Sequence and Timing of Operations.

Areas affected by mining and the sequence of mining are shown on Map 521.100d.

521.163. Bonded Area.

Areas covered by a reclamation bond are the disturbed areas and facilities shown on Maps 321.100b.

521.164. Coal Handling Facilities.

Coal handling facilities are shown on Map 521.100a and 521.100b.

521.165. Topsoil and Waste Storage Areas.

Subsoil will be used from the Subsoil Area shown in Map 521.100c. Noncoal waste will be stored in a waste bin located on site until it can be hauled to a permitted landfill. Coal mine waste and excess spoil will be placed in the disposal area shown on Map 521.100a.

521.166. Coal Processing Waste Sources and Disposal Facilities.

All spoil and coal mine waste from the refuse pile will be disposed in the proposed disposal area shown on Map 521.100a.

521.167. Explosives Storage and Handling Facilities.

There will be no explosives needed for the surface mining operation.

521.168. Air Pollution Control Facilities.

Air pollution control is discussed in Exhibit 421a.

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521.169. Coal Processing Waste Facilities.

No permanent coal processing waste facilities will be constructed within the Permit Boundary. No crushing or screening operations will take place at the SCA – Star Point Permit Area. Coal mine waste and excess spoil will be separated from coal refuse using only mobile construction equipment. Most coal processing will occur at the power plant and will not be part of the operation discussed in this document.

521.170. Transportation Facilities Maps.

Transportation facilities are shown on Map 521.100a, 521.100b, and 521.100c.

521.180. Support Facilities.

There are no support facilities other than the facilities located within the SCA - Star Point Permit Area. These facilities will be reclaimed according to this permit.

521.200-230. Signs and Markers Specifications.

All required signs and markers will be in place and maintained in compliance with R645-301-521.200. The following guidelines will be followed:

1. The signs and markers will be posted, maintained, and removed by SCA;

2. They will be a uniform design (so that they can be easily seen), be made of a durable material, and conform to local laws and regulations;

3. They will be in-place and maintained during all operation and reclamation activities; and

4. They will be retained and maintained until after the release of all bonds.

521.240. Mine and Permit Identification Signs.

Identification signs showing SCA's name, address, telephone number, and permit number will be posted at public access points to surface operations and facilities. These signs will be maintained until after the release of all bonds for the SCA - Star Point Permit Area.

521.250. Perimeter Markers.

For the purposes of the operation and reclamation activities, perimeter markers will be used in compliance with the following rules and regulations:

1. The perimeter of all areas affected by surface operations or facilities before beginning reclamation activities will be clearly marked; and

2. The perimeter of the SCA - Star Point Permit Area will be clearly marked

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before the beginning of surface reclamation activities.

521.260-262. Buffer Zone Markers.

For the purposes of the operation and reclamation activities, buffer zone markers will be used in compliance with the following rules and regulations:

1. Signs will be erected to mark buffer zones as required under R645-301-731.600 and will be clearly marked to prevent disturbance by surface operations and facilities; and

2. Buffer zones will be marked along their boundaries as required under R645-301-731.600.

521.270. Topsoil Markers.

Topsoil stockpile signs will be posted on all stockpiles.

522. COAL RECOVERY.

SCA's activities will maximize the use and conservation of the coal resource by gleaning the very least amount of heating value originally extracted from the coal measures. SCA will incinerate coal mine waste in a fluidized bed combustion boiler, which will supply steam to generate over 50 MW of electrical energy. Fluidized-bed combustion has been approved as the best technology to maintain environmental integrity during this waste utilization activity.

Abandoned coal refuse piles are often times reactivated, and reprocessed to recover a marketable coal product. On some occasions, piles are reworked several times, using various processing approaches. SCA's use of coal mine waste to generate electricity is consistent with our national energy policy to conserve our domestic energy resources.

523. MINING METHOD(S).

Mining Refuse Pile – SCA's activities will include excavation and handling of coal mine waste. Approximately 100,000 to 300,000 tons per year of coal mine waste will be excavated by SCA from the Permit Area. Table 523.100a shows the estimated refuse excavation rates based on an average of 200,000 tons per year. It is expected that the annual, monthly, and daily mined quantities projected will vary widely as various fuel sources are blended to meet the needs of the SCA Power Plant. The projections shown on the table should only be regarded as estimated averages.

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TABLE 523.100a.
Coal Refuse Excavation Rates

	Tons of Refuse
Average annual fuel requirement	200,000 tons/year
Average daily basis (240 days)	833 tons/day
Average hourly basis (1,920 hours)	104 tons/hour
Number of trips per day (56.5 tons)	15 trips/day
Trips per operating hour	2 trips/hour

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, belly dump haul trucks, scrapers, back-hoes, and support equipment (water truck, maintenance vehicles). Excavation will be carried out in lifts across the top of the pile or by pushing material from the top of the pile down the slopes. These methods have been selected to assure continued stability of the refuse pile, while providing ability to segregate non-combustible materials as they are encountered. One or more or a combination of the above described mining methods may be used throughout the life of this operation, and at all times the outer slopes of the pile will be maintained in a safe and stable condition (no steeper than 2H:1V). No crushing or screening operations will take place at the SCA - Star Point Permit Area.

The equipment typically used for loading and hauling services are Caterpillar 980C type front-end loaders with a modified 7.0 cubic yard bucket and haulers with dual trailer rated at 60 tons capacity. Based on one 10-hour shift and a 5-day workweek, this equipment allocation is more than adequate to consistently deliver the amount of waste coal fuel required by the cogeneration facility.

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Sampling and testing may be used to insure that materials provided to SCA's cogeneration facility meet minimum levels of combustibility. Materials will be segregated as they are excavated for handling by: 1) direct hauling to the power plant site or 2) redisposal within the SCA disposal area. Noncoal waste will be disposed in a permitted landfill and spoil will be disposed in the disposal area.

Existing pads, primary roads, ancillary roads, and pit roads will be utilized. Additional roads may be desired at the time of reclamation to improve the operation of hauling topsoil. Additional design and sediment control facilities for these roads if needed will be provided prior to construction of new roads.

No surface blasting is planned nor will be necessary in this operation. Drilling of refuse test holes are planned to assist in obtaining coal quality and how mining will progress. Records will be maintained by SCA to account for the amount of refuse removed and transported.

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523.100-220. Surface Mining Operations within 500 Feet of an Underground Mine.

No activities related to the SCA - Star Point Permit Area will be conducted closer than 500 feet of an underground or abandoned underground mine. This is reinforced by the fact that there are no underground or abandoned underground mines within 500 feet of the SCA - Star Point Permit Area boundary.

524. BLASTING AND EXPLOSIVES.

There will be no blasting or explosives used within the SCA - Star Point Permit Area.

525. SUBSIDENCE.

No material damage or diminution within the SCA - Star Point Permit Area will be caused by subsidence since no underground coal mining operation beneath the SCA - Star Point Permit Area exists, existed, or will likely exist in the future, which could cause subsidence.

526. MINE FACILITIES/STRUCTURES.

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526.100-110. Mine Structures and Facilities.

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The locations of mine structures and facilities are shown on Map 521.100a and 521.100b. There are no facilities in the Subsoil Area. Descriptions and construction dates of the structures and facilities are contained in Table 526.111a.

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Maintenance of these facilities consists of:

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1. Periodic watering of gravel and dirt roads for dust suppression.
2. Periodic grading of gravel and dirt roads to eliminate mudholes and maintain drainage.
3. Removal of coal or processing waste from paved roads to prevent dust.
4. Routine inspection of coal stockpiles for fires and hot spots. Any fires or hot spots will be removed from the stockpiles and extinguished and cooled.

526.111. Location.

Table 526.111a, Existing Structures lists the structures currently in use in the SCA - Star Point Permit Area and their construction dates. The structure locations are shown on Map 521.100a and 521.100b. The Structure Numbers on Table 526.111a and Table 526.111b correspond with the location numbers on the maps.

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TABLE 526.111a. Existing Structures

STRUCTURE NO.*	DESCRIPTION	COMPOSITION	DATE BUILT
7	Coal Waste Refuse Pile	Refuse	Cont. Use
8	Vegetation/Soil Test Plots	Soil	1982
11	Sediment Pond No. 5	Earth	1981
12	Sediment Pond No. 6	Earth	1981
17	Accounting / Surface Operations Office Foundation	Concrete	1976
18	Surface Operations Bathhouse Foundation	Concrete	1968-1977
19	Surface Foreman's Office, Salt Storage, Archives Foundations	Concrete	1930s
24	Disposal Area (Former Pond Treatment Area)	Earth	1985
35A*	Concrete Slab	Concrete	1984
75	Shop Building Foundation	Concrete	1990
80	Sediment Pond No. 9	Earth	1988

* Structure numbers have been kept consistent with structure numbering in the original CPMC permit application.
* 35A The Gasoline Fuel Storage/Dispensing Structure has had tanks and dispensers removed; the slab has been left in place for use during the proposed mining activities.

TABLE 526.111b. Proposed Structures

STRUCTURE NO.*	DESCRIPTION	COMPOSITION
A	Bermed Containment Area for Portable Tank with Concrete Slab	Concrete/Earth/ HDPE or equivalent as liner
B	Bermed Containment Area for Portable Tank	Earth/ HDPE or equivalent as liner

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526.112. Plans or Photographs.

Pictures showing the current condition of the structures are included in Exhibit 526.112a.

526.113. Dates of Construction of Existing Structures.

Dates of construction are in Table 526.111a.

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526.114. Evidence of Compliance.

All existing facilities in the SCA - Star Point Permit Area have been previously permitted by CPMC through the State of Utah as being in compliance with the requirements of UMC Subchapter K Performance Standards. These facilities were transferred to SCA without modifications.

526.115. Compliance Plan.

The three proposed structures, listed in Table 526.111b, are bermed containment areas for a portable diesel fuel tank to be used during mining and reclamation. Map 526.115 shows plans and details for construction of the containment areas. These structures will be removed and regraded during final reclamation.

If modifications to the facilities used by SCA become necessary, a compliance plan will be submitted to DOGM addressing the requirements of R645-301-526.115. The modification will not be performed until proper approvals are received.

526.116. Protection of Public and Landowners.

County Road No. 290 is adjacent to the SCA - Star Point Permit Area. Carbon County is responsible for the maintenance of this road to provide private property access on Gentry Mountain. The public will be protected from mining and reclamation activities that occur within 100 feet of the right-of-way of County Road 290 by maintaining geotechnically stable slopes in the permit area. In addition, any mining debris will be removed from the roadway by scraping with equipment on site. SCA will maintain primary roads being traveled for mining operations to limit tracking onto the county road. Culverts or ditches will also be maintained to allow proper water flow. There are no plans to alter any natural drainage way or make alterations involving a steep cut slope within 100 feet of the right-of-way to ensure the protection of the public. Stop signs will be posted at entrances to all public roads for mining trucks and equipment to stop prior to entering County Road No. 290.

526.200. Utility Installation and Support.

There are no support or pollution control facilities other than the facilities located within the SCA - Star Point Permit Area. These facilities will be reclaimed according to this permit. All water used on the site will be brought in by truck.

526.300. Water Pollution Control Facilities.

The water pollution control facilities within the SCA - Star Point Permit Area include sediment ponds and diversion ditches. Details (including design drawings and

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calculations) for all sediment control ponds and diversion ditches are included in Chapter Seven, Section 720. All sediment ponds will be inspected as outlined for impoundments in Section 514. All impoundments meet or exceed the permanent program performance standards.

526.400. Air Pollution Control Facilities.

SCA will continue its programs in the SCA - Star Point Permit Area to comply with the requirements of the Clean Air Act and other applicable air quality laws and regulations, as well as health and safety standards. A copy of the SCA Air Quality permit is included in Exhibit 421a.

To control fugitive dust, roads around the main complex which are being used by mobile equipment will be treated with calcium chloride, potassium chloride, or other acceptable biodegradable, organic wetting agents or sprayed with water as required during dry periods as required by SCA's Air Quality Permit.

527. TRANSPORTATION FACILITIES.

527.100-200. Road Classification.

All transportation facilities are shown on Map 521.100a and 521.100b. Photos are included in Exhibit 526.112a. Three classifications of roads exist within the SCA Star Point Permit Area. These are as follows:

Primary Roads – roads within the permit area with frequent, long-term heavy use. Typically this includes the haul road for transport of the fuel being mined. Design information is included in the permit for these roads and includes plan, profile and cross section information.

Ancillary Roads – roads within the permit area with infrequent, limited or short-term use not intended for hauling of the fuel being mined. Typically, these roads include access roads to ponds, reference areas, monitoring sites, disposal areas, etc. Design information is included in the permit for these roads and includes plan, profile and cross section information.

Pit Roads – roads in the active mining section of the refuse pile. The locations of these roads change as mining progresses and may or may not be shown on current maps. Typically these roads do not include design criteria in the plan.

The primary and ancillary roads within the SCA Star Point Permit Area are identified on maps 534.100a through 534.100f and are labeled roads G, H, K, L, M, and Haul Road. Road M is a future road that is not anticipated to exist until hauling of Refuse Pile B and C. Road K is also a future road that is not anticipated to exist until reclamation time. Primary and ancillary roads are further discussed in Sections 527.210 and 534.

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Table 527.100a Road Classification

Road	Type and Frequency and Duration of Use
Ancillary Road G to Pond 6	Occasional Access through Life of mine
Ancillary Road H to Pond 5	Occasional Access through Life of mine
Ancillary Road L around Pond 9	Occasional Access through Life of mine
Future Primary Road K to Subsoil Area	Not in existence until reclamation then 2-3 months earthwork equipment during reclamation
Future Primary Road M to Refuse Pile B and C	Not in existence until hauling Refuse Pile B and C materials
Primary Haul Road	Frequent Fuel Hauling through Life of mine

Railroad systems near to the SCA - Star Point Permit Area consist of spur lines and main rail lines owned by Utah Railway Company (URC). A small portion of railroad passes through the southeast corner of the SCA - Star Point Permit Area east of the refuse pile. SCA does not control any trackage of any of the rails.

527.210. Design and Specifications.

Ancillary Road G (Access to Pond 6) – The access road to Pond 6 is called Road G. The road is approximately 10 to 12 feet wide and the grade ranges from 0 to 15%. This road is dirt. Between stations 109+00 to 122+00 where grades are steeper, water bars are spaced at approximately 40 feet.

Ancillary Road H (Access to Pond 5) – The access road to Pond 5 is called Road H. The road is approximately 10 to 12 feet wide and the grade ranges from 0.8 to 12.2%. This road is dirt.

Ancillary Road L (Access to Disposal Area) – The access road to the proposed disposal area is called Road L. The road is approximately 10 to 25 feet wide and the grade ranges from 0% to 7.3%. This road is dirt. The road provides additional access to the north side of the refuse pile as well as Pond 9.

Future Primary Road K (Access to Subsoil Area) – The access road to the Subsoil Area is called Road K. The proposed road is approximately 10 to 25 feet wide and the grade ranges from 13% to 23%. Water bars are spaced at approximately 40 feet where grades are steeper between Stations 2+00 and Station3+70.80. This road will be a dirt road. Prior to construction of Road K, topsoil will be salvaged in accordance with the plan outlined in Section 232.

Future Primary Road M (Access to Refuse Pile B and C) – The access road to Refuse Pile B and C is called Road M. The proposed road is approximately 10 to 24 feet wide and the grade ranges from 0% to 10.9%. This road will be a dirt road.

Primary Haul Road – This is the access road to the coal refuse pile. The road is approximately 12 to 30 feet wide and the grade ranges from 0 to 11%. This road is dirt.

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527.220. Relocation of a Natural Drainageway.

No natural drainage will be relocated because of roads.

527.230. Maintenance and Repairs.

All roads will be maintained in safe condition. If a road is damaged it will be repaired as soon as practical.

527.240. Geotechnical Analysis.

No alternative specifications are required.

528. HANDLING AND DISPOSAL OF COAL, OVERBURDEN, EXCESS SPOIL, AND COAL MINE WASTE.

528.100. Coal Removal, Handling, Storage, Cleaning, and Transportation Areas and Structures.

All coal refuse, which is to be mined, is located within the permit boundary. The coal refuse will be excavated as explained in Section 523. All processing of the coal refuse will be completed in an approved manner outside of this SCA - Star Point Permit Area. Coal Refuse that is unusable (rejects) will be discarded in the disposal area as shown in Map 521.100a. Normally coal mine wastes would be disposed of in a refuse pile. However, due to the nature of this operation, that of excavating the existing refuse piles for fuel, disposal of rejects back on the refuse pile where they came from would impede the ability to continue the excavation.

528.200. Overburden.

Since the coal refuse pile is currently exposed, there is no overburden.

528.300-321. Spoil, Coal Mine Waste, Non-Coal Mine Waste.

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Excess spoil will be placed in the disposal area as designed on Map 521.100f. The operator may segregate clean spoil materials such as boulders and clean excess spoil, and set aside these materials within the disposal area or on a portion of the refuse pile to be used for enhancements to the reclamation. A relatively small amount of coal mine waste (rejects) that is unusable will also be discarded in the disposal area. None-coal mine waste will be limited to concrete and cinder block materials. This site is located to replace empty treatment ponds that the original

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owner, CPMC, used to remove fines from water in its water reuse program. The current design capacity of the disposal area is 145,000 cubic yards. This capacity represents 3.1% of the volume of the coal refuse pile. SCA expects that disposal area is more than adequate for the small amount of coal mine waste, non-coal mine waste and excess spoil anticipated, however, if more disposal is required, the current design would require modification or a second disposal site will need to be designated.

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The spoil will be placed in the designated area in a controlled manner to ensure mass stability and prevent mass movement during and after construction. The material will be placed in four-foot maximum lifts and the placement will ensure that regrading will not be required during reclamation procedures. The spoil will be routinely compacted to prevent combustion and wind-borne transport. When the disposal is completed, a soil cover of four feet will exist over the disposal area, and the area will be revegetated in accordance with the approved reclamation plan. The disposal areas will be inspected as required in Section 514.

528.322. Refuse Piles.

Detailed plan views and cross sections and grades for the Refuse Pile are shown in Maps 521.100d and Map 521.100e. This plan shows the limits of the refuse pile. The refuse pile maintains a maximum 27 degree (2 horizontal:1 vertical) outslope.

Geotechnical investigation of the refuse pile were conducted in 1985 presented in Exhibit 528.322a. The 1985 work indicated that slopes should be maintained at a slope of 2H:1V to maintain a factor of safety greater than 1.5. Cross-sections on Map 542.200b indicate the coarse refuse pile embankment maintained the slope criteria established in the geotechnical investigations.

The coarse refuse pile will be in a state of ongoing excavation throughout the permit period. Excess spoil material and coal mine waste not suitable as fuel will be separated from the combustible material; transported and placed in a controlled manner in horizontal lifts not exceeding four feet in thickness; concurrently compacted as necessary to ensure mass stability and to prevent mass movement during and after construction; graded so that surface and subsurface drainage is compatible with the natural surroundings; and covered with topsoil or substitute material if required. The disposal area is shown in Map 521.100f.

All surface drainage from the area above the refuse pile will be diverted away from the fill into stabilized diversion channels designed to pass safely the runoff from a 100-year, 6-hour precipitation event. Calculations are found in Section 700.

The refuse pile will be inspected as outlined in Section 514.

Maintenance of the embankments will focus on maintaining a safe and stable slope and on controlling the surface runoff from the top of the pile such that it does not run uncontrolled down the outer slopes. Ditches will be cleaned and graded as need warrants.

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Subsidence will not affect the refuse pile as the structure does not overlie any coal seam and is lower in elevation than the nearest outcrop. Mud flows, rock debris falls, or other landslides are not expected to be a problem. Possibility of failure near the sides and downhill of the refuse piles is limited to a thin layer of colluvial material on bedrock. Failure of this material would not threaten the refuse pile.

The refuse pile was certified in 1990 by a professional geotechnical engineer as shown in Exhibit 528.322b.

528.323. Burning and Burned Waste Utilization.

Coal mine waste fires will be extinguished by covering the burning material with non-combustible material or by excavating burning or burned waste for surface extinguishing. Soil materials imported from off site may be used for fire suppression needs. An identified location for clean import soil is Neilson's Pit located in Wellington, Utah. CPMC has reported that fires have not been a problem on the refuse pile; therefore, it is not anticipated that significant quantities of materials will be needed for future fire suppression needs.

Only those persons authorized by the operator and who have an understanding of the procedures to be used will be involved in the extinguishing operations. No burning or burned coal mine waste will be removed from the permit disposal area without a removal plan approved by the DOGM. Consideration will be given to potential hazards to persons working or living in the vicinity SCA - Star Point Permit Area.

Burned coal waste material encountered during excavation of the Refuse Pile will be disposed of in the disposal area.

528.330. Non Coal Mine Waste.

528.331. Designation of Noncoal Mine Waste Materials.

Noncoal materials such as paper, wood, trash and other materials are collected routinely, transported to a central collection area, and periodically removed by a contracted disposal service. Concrete and cinder block materials will be disposed of in the designated disposal area.

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528.332. Final Disposal of Noncoal Mine Wastes.

Non-coal waste is collected in a central collection area and periodically removed to a state approved landfill. Concrete and cinder block materials will be disposed of in

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the designated disposal area.

528.333. Restrictions on Disposal of Noncoal Mine Waste Material.

Non-coal waste, except for concrete and cinder block materials, will not be deposited in a refuse pile or impoundments, nor will it be deposited within eight feet of any coal outcrop or storage area.

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528.334. Hazardous Waste Materials.

Non-coal wastes defined as "hazardous" will be handled in accordance with the requirements of Subtitle C of RCRA. Inventories will be conducted of all chemicals used on the property. Employees are trained in the handling, use, and disposal of hazardous material. If possible non-listed substitutes are found for any chemicals on the RCRA list. Batteries are recycled.

528.340-350. Underground Development Waste.

No underground mining will occur in the SCA - Star Point Permit Area, thus this regulation is not applicable to this permit application.

528.400. Dams, Embankments, and Other Impoundments.

Three sediment ponds and a few interim sediment traps have been constructed by CPMC, and are in use at the present time. None of these have embankments constructed of coal mine waste. These facilities will continue to be used to treat runoff water throughout the operation. Upon final reclamation and at the end of the post mining liability period, the facilities will be removed and the areas reclaimed. Sediment pond designs and additional information are contained in R645-301-531. Dams, embankments and other impoundments are inspected on a regular basis and maintained to operate as designed. Pictures of the Sediment Ponds are in Exhibit 526.112a. The design of each facility is shown in Maps 733.120a, 733.120b, and 733.120j. The original certified CPMC drawings of the ponds are shown in Exhibit 742.221i.

529. MANAGEMENT OF MINE OPENINGS.

No mine openings exist within the SCA - Star Point Permit Area, thus this regulation is not applicable to this permit application.

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530. OPERATIONAL DESIGN CRITERIA AND PLANS

531. GENERAL.

Three sedimentation ponds exist near the refuse pile and serve as on-site water pollution control facilities in conjunction with the SCA runoff control plan. These structures have been designed to contain the 10-year 24-hour storm runoff event from disturbed areas and to remove excess suspended sediments picked up from disturbed areas of the mine as required. These facilities will remain in place throughout the operation. After or during mine reclamation, they will be removed and the area reclaimed as required.

No past, present, or future underground mining activities have or will be conducted beneath any existing sedimentation pond, treatment facility or waste pile embankment, therefore there will be no effect upon such structures due to subsidence.

532. - 533. Sediment Control.

The hydrologic design calculations for the sediment ponds are discussed in Section 743. These calculations outline the criteria, assumptions, and parameters used in order to design a structure that would be adequate to control sedimentation.

There is a system of collector ditches throughout the SCA - Star Point Permit Area to collect runoff from roads and disturbed areas. These flow into sediment ponds that are located throughout the SCA - Star Point Permit Area. These ponds discharge into tributaries of Serviceberry Creek. Serviceberry then conveys water to Miller Creek, which is a tributary of the Price River. The discharges are subject to the UPDES permit limitations discussed in Section 700.

The permitted operations in the SCA - Star Point Permit Area include excavations of the refuse piles. The probable hydrologic impacts are expected to change very little with the inclusion of the excavation activities. The disturbance of the refuse piles caused by the excavation may increase sediment yield from these areas. The control of the extra sediment is discussed in Section 730.

533.100-220. Stability.

Embankment stability analyses were completed by CPMC for Pond No. 5 in 1981, 1982, and again in 1985 after pond modifications were made. According to the findings of the studies the pond was finally accepted by the Division with a factor of safety of 1.47 to 1.48. After pond enlargement modifications were made in 1984 the analyses indicate that the dry pond factor of safety is 1.8. A letter prepared by R&M

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Consultants dated November 21, 1984, attesting to the latest factors of safety is reproduced in Exhibit 733.210a.

A stability analysis of Pond No. 9 was completed prior to construction by Chen and Associates, which indicated that the 3H:1V embankment slopes will result in a factor of safety greater than 1.5. A letter by Hansen Allen & Luce, Inc. dated August 17, 1988 certifies completion of Pond No. 9 in compliance with accepted engineering standards. A copy of the letter is included in Exhibit 733.210a.
A letter by Boyle Engineering dated November 16, 1981 certifies completion of Pond No. 6 in compliance with the plans and specifications prepared by Vaughn Hanson Associates. A copy of the letter is included in Exhibit 733.210a and includes compaction tests of the soil embankment.

Design details for all three ponds are included in Exhibit 742.221i.

533.300-400. Slope Protection.

All sedimentation pond embankments except Pond No. 9, which borders the coal refuse pile, are vegetated to prevent surface erosion.

Loose or grouted riprap was placed in pond inlet channels, around spillway risers, and at spillway outlets as shown on the previously mentioned design detail maps and as discussed later in this section. Riprap around all spillway risers (except Pond No. 9) has been placed so as to surround the risers to a width of five feet. Rock added to the pond design around spillway risers will generally minimize erosion caused by currents and eddies created by the concentration of flows around the outlet risers. Rock was not placed around the outlet riser for Sediment Pond No. 9 because it was felt that the riser was of sufficient height to prevent embankment erosion.

Consideration was also given to the erosion potential at each pond outlet. It was found that some pond outlets were located on slopes that are too steep for the design of conventional riprap erosion protection. In such locations each outlet has been placed onto a man-made or natural rock or riprap splash pile. For the ponds that have been so constructed, discharge waters appear to be controlled by the existence of the rubble piles and the solution appears to be working well. For ponds using natural rock or riprap splash piles, no calculations are provided since calculation techniques are not currently available for their design on such steep slopes as encountered on the site.

Some pond outlet designs have considered not only riprap basins, but also concrete energy dissipation boxes. To date, riprap solutions appear to be more feasible than concrete energy dissipation boxes with the understanding that routine maintenance may be required.

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533.500. Submerged Highwalls.

There are no submerged highwalls within the SCA - Star Point Permit Area.

533.600-700. MSHA Impoundments.

There are no impoundments that meet or exceed 30 CFR 77.216(a) criteria. Also, See Exhibit 513.

534. ROADS.

There are three ancillary roads, Road G, Road H, and Road L, which are within the SCA - Star Point Permit Area. In addition, there is one existing primary road, the primary Haul Road to the top of Refuse Pile A, and two proposed primary roads, Road K to access the Subsoil Area and Road M to access Refuse Pile B and C. The plan, profile, and cross section of Roads G, H, K, L, M and the Haul Road are shown on Maps 534.100a through 534.100f. All other roads are temporary pit roads, which may change per progress of excavation. Existing access roads are in place to the Subsoil Area, additional roads may be desired at the time of reclamation to improve the operation of haulingsoil material. Prior to construction of Road K, topsoil will be salvaged in accordance with the plan outlined in Section 232. Additional design and sediment control facilities for these roads if needed will be provided prior to construction of new roads. Road specifications can be found on Table 534.200a, Road Specifications. Exhibit 534 includes the calculation of the road embankments meeting the safety factor of 1.3 or greater.

TABLE 534.200a. Road Specifications

ROAD*	SURFACE TYPE	SURFACE WIDTH	LENGTH	MAXIMUM GRADE %	MINIMUM GRADE %	AVERAGE GRADE %
G'	Dirt & Gravel	10-12'	0.4 miles	14.6	0	4.7
H	Dirt & Gravel	12-24'	0.6 miles	12.24	0.83	3.8
K	Dirt & Gravel	12-24'	0.05 miles	22.6	11.5	17.3
L	Dirt & Gravel	10-24"	0.3 miles	7.3	0	3.3
M	Dirt & Gravel	10-24""	0.05 miles	10.9	0	8.5
Haul Road	Dirt & Gravel	12-30'	0.16 miles	10.88	0	4.6

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Road maintenance is addressed in R645-301-526.100. Reclamation of roads is addressed in R645-301-542.200. All non-public roads within the SCA - Star Point Permit Area will be reclaimed.

535. SPOIL.

Disposal of spoil is discussed in R645-301-528.300.

536. COAL MINE WASTE.

No underground mining will occur that would generate additional coal mine waste. No sediment ponds or impoundments are constructed from coal mine wastes or refuse materials.

537. REGRADED SLOPES.

Regrading of fills is discussed in R645-301-542.200.

540. RECLAMATION PLAN.

541. GENERAL.

541.100. Commitment.

Upon the permanent cessation of coal refuse pile removal operations, SCA will close, backfill, or otherwise permanently reclaim all affected areas in accordance with the R645-301 regulations and this reclamation plan.

541.200. Surface Coal Mining and Reclamation Activities.

All surface equipment, structures, or other facilities not required for the continued surface coal mining activities and monitoring, unless approved by the Division as suitable for the postmining land use or environmental monitoring, will be removed and the affected land reclaimed following permanent cessation of mining operations.

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541.300. Underground Coal Mining and Reclamation Activities.

No underground coal mining and reclamation activities will be conducted within the SCA - Star Point Permit Area.

541.400. Environmental Protection Performance Standards.

The plan presented herein is designed to meet the requirements of R645-301 and the environmental protection performance standards of the State Program.

542. RECLAMATION PLAN.

542.100. Reclamation Timetable.

A timetable for the completion of each major step in the reclamation plan is included as Table 542.100a. This table projects completion of the reclamation within a 5-month period for both the Bonding Scenario and Final Reclamation. However, specifics related to the duration and sequencing of reclamation construction activities will be dependent largely upon contractor preference and equipment. Therefore, selected tasks may shift and the time frame may be extended beyond that indicted in Table 542.100a.

TABLE 542.100a. Reclamation Timetable for All Scenarios

		Reclamation Schedule				
No.	Activity Description	May	June	July	August	Sept.
1	Demolish Surface Structures					
2	Installation of Interim Sediment Controls					
3	General Grading					
4	Soil Cover Placement					
5	Removal of Ponds					
6	Revegetate					

542.200. Plan for Backfilling, Soil Stabilization, Compacting, and Grading.

The plan for reclamation is detailed in the following maps:

<u>Bonding Scenario Reclamation Maps and Cross Sections</u>
Map 542.200a, Refuse Pile Bonding Scenario Reclamation Topography
Map 542.200b, Refuse Pile Bonding Scenario Reclamation Cross Sections

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Map 542.200c, Subsoil Area Bonding Scenario Excavation and Reclamation
Map 542.200d, Subsoil Area Bonding Scenario Reclamation Cross Sections
Map 542.200f, Bonding Scenario Reclamation Subsoil Cover Plan

Final Reclamation Maps and Cross Sections

Map 542.200e, Refuse Pile Final Reclamation Topography
Map 542.200g, Final Reclamation Subsoil Cover Plan

The reclamation plan was designed to meet the objectives of balancing cut and fill quantities, while maintaining a geotechnically stable site, and minimizing erosion. The primary features of the Bonding Scenario Reclamation plan are:

- Regrading of areas to create slopes no steeper than 3H:1V which will adequately drain while minimizing long-term erosion concerns;
- Backfilling to remove cut slopes to the extent possible within the objectives noted above (cut and fill balance, site stability, and erosion control);
- Removal of sedimentation ponds and implementation of interim sediment control.

The Final Reclamation is similar to the Bonding Scenario Reclamation except that regrading will be very minimal since the pile will be removed and natural ground should be exposed.

The estimated cut and fill quantities for reclamation of the site for the two scenarios are shown in Table 542.200a and Table 542.200b. Details regarding topsoil placement and revegetation following regrading are provided in Sections 200 and 300 of this plan, respectively.

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TABLE 542.200a. Cut and Fill Balance for Bonding Scenario Reclamation

Area-	Cut Quantity (yd^3)	Fill Quantity (yd^3)
Refuse Pile General Grading	270,000	270,000
Pond 6 Removal	1,850	1,850
Road G Removal	1,700	1,700
Subsoil Redistribution	235,300	
Refuse and Disposal Area Soil Cover		235,300
Total	508,850	508,850

TABLE 542.200b. Cut and Fill Balance for Final Reclamation

Area	Cut Quantity (yd^3)	Fill Quantity (yd^3)
General Grading, Refuse Disposal	50,000	50,000
Pond 6 Removal	1,850	1,850
Road G Removal	1,700	1,700
Subsoil Redistribution	235,300	
Refuse and Disposal Area Soil Cover		111,600
Redistribute Remaining Salvaged Subsoil		123,700
Total	288,850	288,850

Demolition. Prior to significant grading activities in the SCA - Star Point Permit Area, remaining structures/foundations and materials will be removed from the area or to the disposal area. Those materials requiring off-site disposal will be placed in a permitted landfill. If foundations will not interfere with regrading activities, they will be left in place for on-site burial. Foundations which will be within four feet of the reclaimed surface will be broken up to the extent practical prior to backfilling. Other foundations may be left intact.

Non-coal wastes found during demolition or other reclamation activities (including, but not limited to, grease, lubricants, paints, flammable liquids, garbage, abandoned machinery, lumber, and combustible materials generated during previous mining activities) will be placed and stored in a controlled manner. This storage area will be

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determined at the time of reclamation and will be at the discretion of the permittee. Final disposal of the non-coal mine wastes will be at a designated disposal site within the SCA - Star Point Permit Area or at a State-approved solid waste disposal facility. Notwithstanding any other provision of the R645 rules, any non-coal mine waste defined as "hazardous" under Section 3001 of the Resource Conservation and Recovery Act ("RCRA")(P.L. 94-580, as amended) and 40 CFR 261 will be handled in accordance with the requirements of Subtitle C of RCRA and any implementing agency.

Backfilling and Compaction. For the Bonding Scenario, the objective of the proposed backfilling, contouring, and grading process is to create reclaimed surface which will remain stable during post-mining land use. This will be achieved by regrading slopes to no steeper than 3H:1V, as shown in Map 542.200a. For the Final Reclamation Scenario, the pile will have been removed and minimal grading is expected to be required except to scrape the ground to remove residual coal materials.

Prior to grading, all vegetation, organic matter, and debris will be cleared from areas to receive fill. The cut material from site regrading will be placed as fill and graded to facilitate drainage from the mine site and contributing side areas. All fill placed during recontouring of the site will be compacted to at least 85 percent of maximum Proctor density (ASTM D698). Compaction will be accomplished using repeated passes of rubber-tired equipment, rollers, and other appropriate equipment.

Fill lifts will be placed with a thickness when compacted of no more than 12 inches. Care will be taken to ensure that fill materials are not frozen during placement or compaction. Any areas that are damaged by freezing will be reconditioned, reshaped, and recompacted to at least 85 percent of maximum Proctor density.

In general, grading and backfilling operations 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.

For the Final Reclamation Scenario, all areas where coal refuse has been removed will be scraped to clear residual coal materials which will be disposed of in the disposal area.

Topsoiling, Seeding, and Mulching. Following regrading or scraping, a soil cover for plant-growth will be placed over the refuse pile area and disposal area at thicknesses as described in Section 542.700. Preparation of the rough-graded surface and placement of the plant-growth media will occur as described in Section 240 of this plan.

The Subsoil Area is located to the north of the refuse pile. For the Bonding Scenario Reclamation it is estimated that 235,700 cubic yards of soil material will need to be imported for the soil cover. The Bonding Scenario excavation and reclamation plans

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of the Subsoil Area including cross sections are shown in Maps 542.200c and 542.200d. Map 542.200f shows the Bonding Scenario subsoil cover plan. The plans detail the stockpiling of subsoil, placement of erosion control, construction access routes, and final reclamation contours. The anticipated Final Reclamation, however, would only require 30,800 cubic yards. Map 542.200g shows the Final Reclamation subsoil cover plan.

The details regarding soil preparation, seeding, and mulching can be found in the Reclamation Plan of Section 200 and Section 300.

Sedimentation Pond Removal and Interim Sediment Control. The sedimentation ponds will be retained for as long as practical during reclamation. Once backfilling and grading operations proceed to the location of a pond, it will be removed. This removal will consist primarily of filling the pond areas with the adjacent embankment materials using backhoes, loaders, dozers, compactors, and other appropriate equipment.

Before regrading of an area no longer allows that area to drain to the sedimentation pond, plant-growth media will be emplaced on the area and it will be mulched and deep gouged as indicated previously in this section. If necessary alternate sediment controls may also be installed to control localized erosion prior to the establishment of revegetation efforts. Locations of the alternate sediment controls will be selected to reduce sediment contributions to runoff based on field observations. Maps 731.720a (drainages and diversions) and 731.720b (culverts) show the locations for these sediment controls around the coal refuse pile. Maps 542.200c shows the locations for sediment controls around the Subsoil Area for Bonding Scenario Reclamation and Final Reclamation. Silt fences and straw bales will be installed as noted in Figure 542.200a.

Pond 6 is at the downstream end of the site. This pond will be retained as long as possible to provide downstream sediment control at the site during reclamation. Since a reclamation channel will be constructed through this pond, the pond will be removed and the area reclaimed at the end of reclamation, as indicated in Table 542.100a. Prior to removal of these ponds, the majority of the area above these ponds will have been final graded, roughened, mulched, and seeded, with interim sediment control installed as necessary.

If reclamation work is not completed before seasonal conditions require a halt to reclamation work, those areas which have been regraded but which have not been covered with soil from the Subsoil Area and reseeded will be deep gouged and left in a roughened state until reclamation activities resume.

542.300. Final Surface Configuration Maps and Cross Sections.

For the Bonding Scenario Reclamation, the final surface configuration maps and

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cross sections are provided on Maps 542.200a, 542.200b, 542.200c, and 542.200d. For the Final Reclamation, the final surface topography of the refuse site is shown on Map 542.200e. The cross sections for this topography are shown on the refuse pile cross sections in Map 521.100e. No facilities related to the coal mining operations will remain in the SCA - Star Point Permit Area following reclamation.

542.400. Removal of Temporary Structures.

All surface structures associated with the operation will be removed as outlined in Section 542.200. A description ensuring that all structures and the sedimentation pond have been removed will be provided to the Division before seeking bond release or abandoning the SCA - Star Point Permit Area.

542.500. Removal of Sedimentation Ponds.

Information regarding removal of the sedimentation ponds associated with the site is provided in Section 542.200. The timetable for removal of these ponds is indicted in Table 542.100a.

542.600. Roads.

All private roads will be reclaimed after they are no longer needed for mining and reclamation operations. Roads will be reclaimed by pulling fill back up from the downslope and placing it in the cuts. The replaced fill material will be shaped to conform to the adjacent terrain and to meet natural drainage patterns. Following rough grading, the reclaimed roads will be mulched, deep gouged, and revegetated in accordance with Section 542.200 of this plan.

Natural drainages will be re-established across the reclaimed roads as indicated in Section 760. Culverts that are required for an approved post-mining land use (i.e., those which exist along County Road 290) will be retained; all others will be removed. Water bars and cross drains may be constructed across reclaimed roads to minimize erosion where necessary. The entrances to reclaimed roads will be blocked by barriers of native rock or earthen berms to prevent vehicular access.

542.700. Final Abandonment of Mine and Disposal Areas.

Disposal Area. Excess spoil and coal mine waste not suitable as fuel that is generated in the SCA - Star Point Permit Area will be disposed of prior to final reclamation in the disposal area which is to be created on the site previously used by CPMC for water treatment. Material which is added to the disposal area during reclamation will be placed in accordance with the procedures outlined in Section 528.322 of this plan. The materials will be placed in a controlled manner to ensure

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mass stability and prevent mass movement during and after construction. The maximum slope for the disposal areas is 4:1. As shown in Table 542.700, the safety factor for the maximum slope in the disposal area is 3. This was calculated using the same methodology used in Exhibit 534.

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TABLE 542.700. Safety Factor for Disposal Area Slopes

Cohesion	300
Friction Angle in Degrees (<)	31
Density	90
Section	Spoil Pile
Height of Slope, H	20
Slope Angle in Radians	60
Slope Angle in Radians	1.0
Rock Slope Eng Chart No.	1
From RSE Chart 1, Tan (<) /F	0.2
Factor of Safety, F	3.0

Wastes will be routinely compacted and covered to prevent combustion and wind-borne waste. The disposal area will be reclaimed following completion of operation and reclamation of the refuse pile areas. The pile will be reclaimed by scarifying the pile to ensure a stable contact surface for imported cover material. Subsequent to placement of the cover material, the surface will be gouged or pocked so as to produce a roughened surface to help control runoff and enhance local vegetative growth. Gouging or pocking of the surface material will be conducted in a manner so as to minimize penetration of the spoil material.
The final reclaimed shape of the pile will approximate the contours as shown in Map 521.100f. This is approximate, since the amount of total material in the pile has been estimated and may vary upon reclamation.

Following ripping, the soil cover material will be spread on the pile to the approved depth. It is anticipated that this cover will be placed using dozers. Soil from the Subsoil Area will be applied to the regraded surfaces, the area will be lightly gouged, and the surface will be mulched and revegetated in accordance with Section 542.200 of this plan.

CPMC, the previous owner of the pile, had an approved reclamation plan which placed a 18-inch soil cover on 3:1 slopes. The flat top of the pile would have four feet of cover and would be deeply gouged, ripped and scarified to prevent heavy runoff down the slope. This soil cover reclamation recommendation is discussed in Exhibit 542.700a. In the event that the Bonding Scenario reclamation occurs, the SCA Reclamation Plans call for utilizing the same depth of soil cover over the pile.

At the time of the final reclamation the entire subsoil pile will be used for reclamation of the SCA Permit Area in accordance with R645-301.212. The subsoil is designated for reclamation regardless of the minimum soil cover requirements. The minimum soil cover requirements are dependant on the quality of the soil materials beneath the pile which will be determined by soil testing as described in Section 242 The subsoil previously salvaged from the SCA Permit Area and stored in the subsoil stockpile will be returned to the site.

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Coal Refuse that is unusable (rejects) will be placed in the spoils areas and covered with a minimum of four feet of soil from the Subsoil Area during final backfilling and grading. Prior to reclamation of the coal refuse pile areas under the Bonding Scenario, soil samples will be collected from the surface at a frequency of approximately one per acre across the refuse pile areas. The samples will be analyzed in accordance with current Division guidelines to determine presence of potential acid or toxic forming materials. If acid or toxic forming materials are found, four feet of soil cover will be placed over them, or the materials will be moved to the disposal area and covered.

Disposal of Non-Coal Mine Wastes. All non-coal (non-waste rock) waste generated from mining and reclamation operations will be salvaged or disposed of in a permitted landfill. Non-coal waste that is generated during the course of reclamation that cannot be salvaged will be disposed of at an off-site permitted facility. . Concrete and cinder block materials will be disposed of in the designated disposal area.

542.800. Reclamation Cost Estimate.

The estimated cost to reclaim the site is provided in Section 800, Bonding. (Refer to Exhibits 830.100a and 830.100b)

550. RECLAMATION DESIGN CRITERIA.

551. CASING AND SEALING OF UNDERGROUND OPENINGS.

Since there are no underground mining operations in the SCA - Star Point Permit Area, there are no underground openings on the site, which require casing or sealing.

552. PERMANENT FEATURES.

552.100. Small Depressions.

During final grading and spreading of soil from the Subsoil Area, small depressions formed by deep gouging of the surface soil will be left in the soil. The purpose of these depressions will be to retain moisture, minimize erosion, and assist in revegetation of the site.

Deleted: *June 2003*

552.200. Permanent Impoundments.

No permanent impoundments will be left following reclamation.

553. BACKFILLING AND GRADING.

Plans for backfilling and grading of the site upon reclamation have been presented in Section 542.200 of this plan. This plan was designed to comply with the applicable requirements of R645-301-500 and R645-301-700. As indicated in Section 542.200, backfilling and grading operations will be conducted in a controlled manner.

553.100. Disturbed Area Backfilling and Grading.

Approximate Original Contour. As indicated previously in this plan, the area of the Star Point surface facilities was disturbed by mining activities prior to the passage and implementation of SMCRA. The Bonding Scenario Reclamation attempts to stabilize slopes but does not approach the original contour. The Final Reclamation contours as shown in Map 542.200e, however, shows an approximate original contour as identified by a 1976 aerial survey of the refuse pile area. This final reclamation should be able to match approximate original contours except in the disposal area where a natural appearing slope has been designed. To the maximum extent technically practical, the site will be backfilled and graded to achieve the assumed approximate original contour.

Slope Stability. Backfilled and regraded slopes have been designed to not exceed the angle of repose. The disposal area has been designed and constructed to be stable with slopes no greater than 4H:1V as shown on Map 521.100f. The slopes have thus been designed to prevent slides and reduce erosion.

Erosion and Water Pollution. Alternate sediment control measures will be implemented during and following backfilling and regrading as outlined in Section 542.200 of this plan. As vegetation becomes established on the reclaimed surfaces, erosion potentials will be further minimized. By minimizing erosion, water pollution will also be precluded.

The reclamation plan has been designed with soil being regraded at slopes of up to 3H:1V. As noted in Exhibits 528.322a, these slopes will be geotechnically stable. Dozers will be used during placement of the topsoil on these slopes, taking care to achieve a reasonably uniform thickness of the final soil cover. Following placement and prior to seeding, all areas will be roughened. The reclaimed site will be deeply gouged with a track hoe. The final surface will consist of mounds and depressions capable of holding runoff.

Post-Mining Land Use. The disturbed area will be backfilled and regraded in a

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manner that supports the approved post-mining land use.

553.200. Spoil and Waste.

Excess Spoil. All spoil and coal mine waste generated within the SCA - Star Point Permit Area during reclamation will be placed on the disposal area prior to its final reclamation. This material will be compacted during placement as outlined in Section 528.322 of this plan. The disposal area will be covered with a minimum of four feet of soil from the Subsoil Area during final backfilling and grading.

553.300. Exposed Coal Seams, Acid and Toxic Forming Materials, and Combustible Materials.

Exposed Coal Seams. There are no exposed coal seams in the SCA - Star Point Permit Area.

Acid- and Toxic-Forming Materials. Current analysis information indicates that there are potentially acid- and toxic-forming materials on the site. If any such materials are uncovered in the future they will be covered with a minimum of four feet of non-toxic and non-combustible materials during final backfilling and grading. This cover will consist of soil from the Subsoil Area.

Combustible Materials. All combustible materials that are exposed, used, or produced during mining will be disposed of at the designated disposal area.

553.400. Cut-and-Fill Terraces.

As previously discussed in Section 542.700 of this plan, terraces will not be used in reclamation on the outslope of the refuse pile.

553.500-600. Highwalls from Previously Mined Areas.

There are no highwalls from previously mined areas in the SCA - Star Point Permit Area.

553.700. Backfilling and Grading – Thin Overburden.

Since the coal resource is exposed, no reclamation activities involving thin overburden will occur in the SCA - Star Point Permit Area.

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553.800. Backfilling and Grading – Thick Overburden.

Since the coal resource is exposed, no reclamation activities involving thick overburden will occur in the SCA - Star Point Permit Area.

553.900. Regrading of Settled and Revegetated Fills.

No settled areas are located in the SCA - Star Point Permit Area since no underground coal mining operation beneath the area exists, existed, or will likely exist in the future.

560. PERFORMANCE STANDARDS.

The entire operation within the SCA - Star Point Permit Area will be conducted in accordance with the approved permit and the requirements of R645-301-510 through R645-301-553.

Deleted: *May 2003*

NOTE:
ALL ABANDONED SURFACE FACILITIES OUTSIDE THE PERMIT BOUNDARY TO BE RECLAIMED BY OTHERS

PERMIT

PERMIT BOUNDARY

Foundation
STRUCTURE 17

COUNTY ROAD 290

BEGIN ROAD "L"
ALIGNMENT STA 146+88

Foundation
STRUCTURE 19

TEMPORARY PIT ROAD

POND 9

STRUCTURE 25
SUBSTATIONS

AREA PREVIOUSLY
RECLAIMED BY
OTHERS

EXCESS SPOIL
DISPOSAL AREA

CENTERLINE ANCILLARY
ROAD "L"

MATCHLINE SHEET 521.100b
SHEET 521.100b

STRUCTURE 18
Foundation

PROPOSED STRUCTURE B

STRUCTURE 35 CONCRETE
CONTAINMENT FACILITY

STRUCTURE 75
Foundation

REFUSE PILE A

TEMPORARY PIT ROAD

SECTION LINE

POND 5

TEMPORARY PIT ROAD

PERMIT BOUNDARY

9 10
16 15

200 0 200 400
SCALE OF FEET

RECEIVED
SEP 0 8 2003
DIV. OF OIL, GAS & MINING

INCORPORATED
NOV 1 0 2003
DIV OF OIL GAS & MINING

PROFESSIONAL ENGINEER
LICENSED
No. 187727
S. CRAIG
STATE OF UTAH

Sept. 20, 2002 - 17:17:54 DWG Name: U:\65UN010600\New Permit\Drawings\C-521.100a.DWG Updated By: AHeck

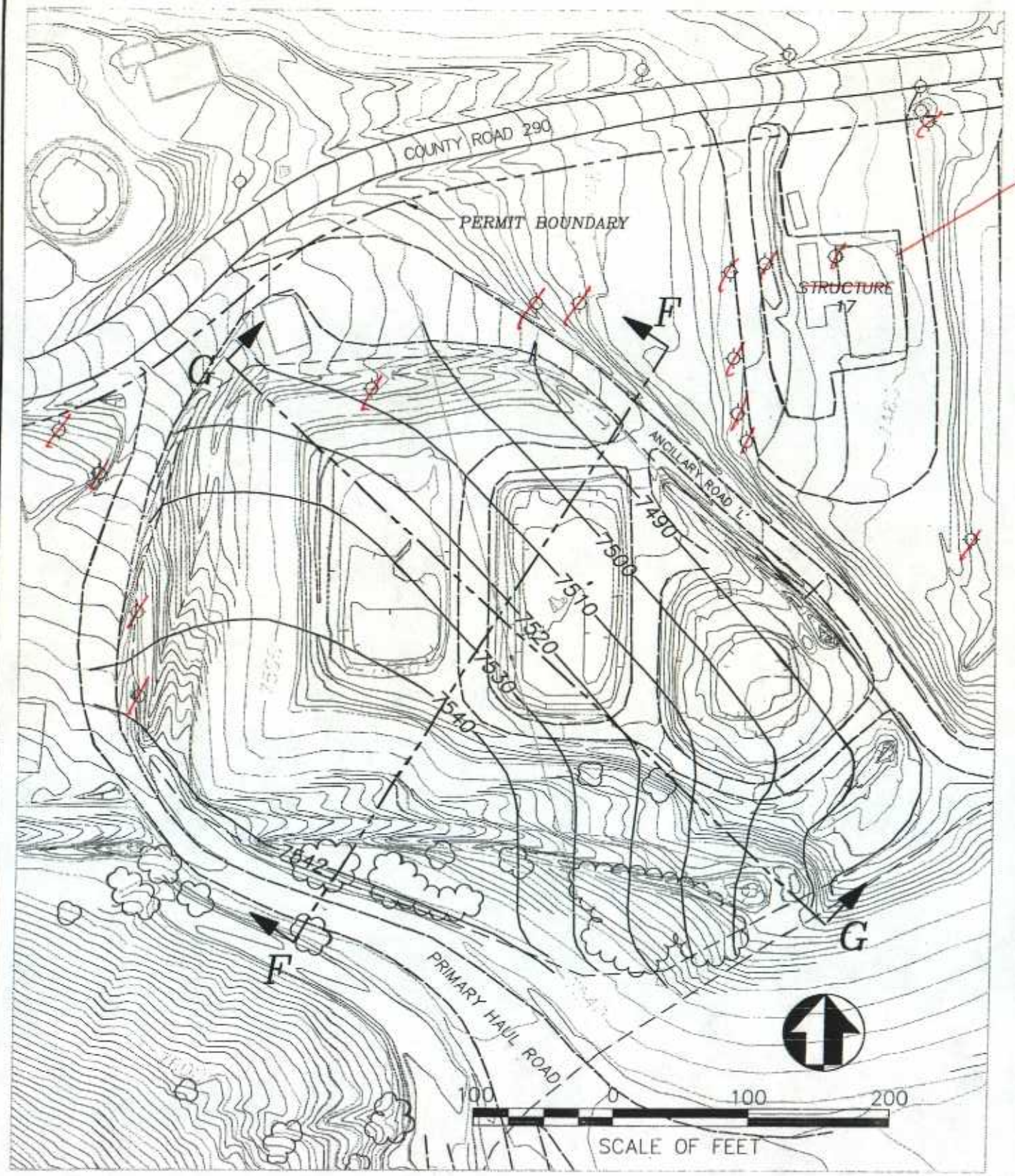
DATE	03-20-02
PLOT DATE	
SCALE	SEE SCALE BAR
PROJECT NUMBER	65UN010600

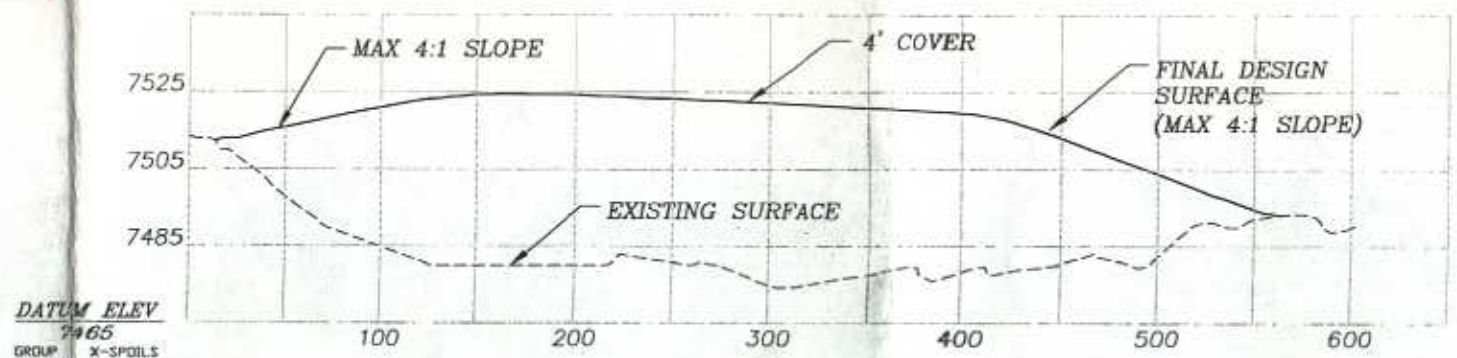
SCA / STAR POINT WASTE FUEL
REFUSE PILE
WEST SIDE SURFACE FEATURES

PSOMAS
2825 East Cottonwood Parkway, Suite 120
Salt Lake City, Utah 84121
(801) 270-5777 (801) 270-3782 (FAX)

DRAWN CRG	DESIGNED AH	CHECKED SSC

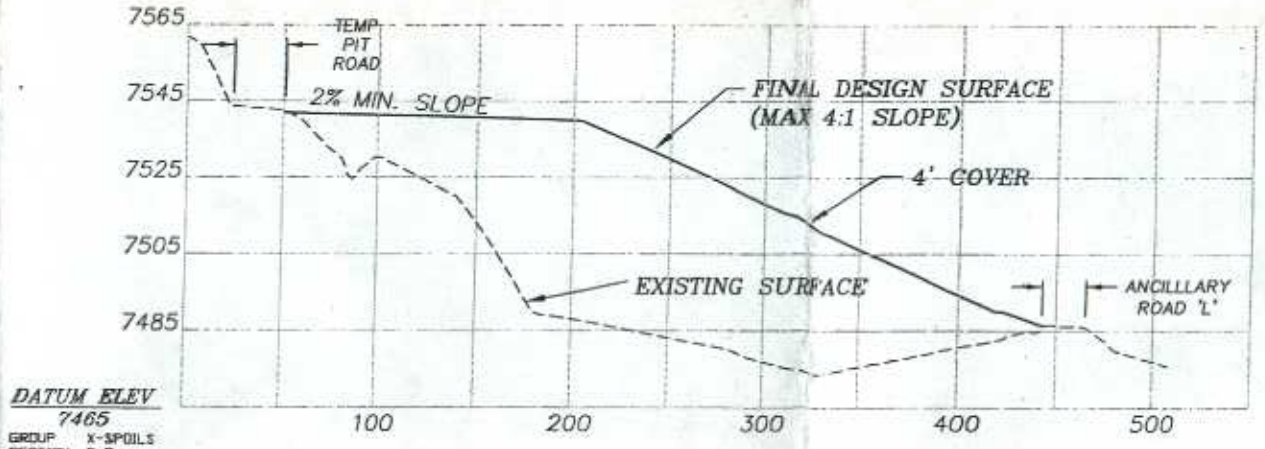
MAP NUMBER
521.100a





DATUM ELEV 7465
GROUP X-SPOILS
SECTION G-G

CROSS SECTION G-G
SCALE HORIZ: 1" = 50' VERT: 1" = 25'



DATUM ELEV 7465
GROUP X-SPOILS
SECTION F-F

CROSS SECTION F-F
SCALE HORIZ: 1" = 50' VERT: 1" = 25'

INCORPORATED
NOV 14 2003
DIV OF OIL GAS & MINING

RECEIVED
SEP 08 2005
DIV. OF OIL, GAS & MINING

RECEIVED
JAN 15 2004
DIV. OF OIL, GAS & MINING

PROFESSIONAL ENGINEER
S. SCOTT CARLSON
STATE OF UTAH

DATE 05-15-03
PLOT DATE
SCALE SEE SCALE BAR
PROJECT NUMBER 8SUN010600

SCA / STAR POINT WASTE FUEL PROPOSED DISPOSAL AREA

PSOMAS
2825 East Cottonwood Parkway, Suite 120
Salt Lake City, Utah 84121
(801) 270-5777 (801) 270-5782 (FAX)

DESIGNED CRG
DRAWN AH
CHECKED SSC

MAP NUMBER
521.100f

February 6, 2003 - 17:26:28 DWG Name: U:\8SUN010600\New Permit\Drawings\C-521.100f.dwg Updated By: CAhrens

NOTE:
ALL ABANDONED SURFACE FACILITIES OUTSIDE THE PERMIT BOUNDARY TO BE RECLAIMED BY OTHERS

PERMIT BOUNDARY

Foundations
STRUCTURE 17

COUNTY ROAD 290

BEGIN ROAD "L" ALIGNMENT STA 146+88

Foundations
STRUCTURE 19

STRUCTURE 25 SUBSTATIONS

AREA PREVIOUSLY RECLAIMED BY OTHERS

PRIMARY

SLURRY PONDS

POND 9

CENTERLINE ANCILLARY ROAD "L"

STRUCTURE 35 CONCRETE CONTAINMENT FACILITY

STRUCTURE 18
Foundations

PROPOSED STRUCTURE B

STRUCTURE 75
Foundation

REFUSE PILE A

TEMPORARY PIT ROAD

SECTION LINE

POND 5

ANCILLARY ROAD H

ANCILLARY ROAD W

MATCHLINE SHEET 521.1008
SHEET 521.1008

PERMIT

LEGEND

◇ EXISTING POWER POLE

PERMIT BOUNDARY

200 0 200 400
SCALE OF FEET

RECEIVED
MAR 0 6 2003
DIV. OF OIL, GAS & MINING

RECEIVED
SEP 0 8 2005
DIV. OF OIL, GAS & MINING

PROFESSIONAL ENGINEER
LICENSED
No. 157227
JEFFREY C. CARLSON
STATE OF UTAH
2003

February 06, 2003 - 17:19 DWG Name: U:\BSUN010600\New Permit\Drawings\C-521.100a.DWG Updated By: Ohrens

DATE 02-06-03
PLOT SCALE
SCALE SEE SCALE BAR
PROJECT NUMBER BSUN010600

SCA / STAR POINT WASTE FUEL
EXISTING FACILITIES AND SURFACE
CONFIGURATION IN 2005

PSOMAS
2828 East Cottonwood Parkway, Suite 120
Salt Lake City, Utah 84121
(801) 270-5777 (801) 270-5782 (FAX)

DESIGNED CRG
DRAWN AH
CHECKED SSC

MAP NUMBER
521.100

NOTE:
ALL ABANDONED SURFACE FACILITIES OUTSIDE THE PERMIT BOUNDARY TO BE RECLAIMED BY OTHERS

BEGIN ROAD "G" ALIGNMENT STA 101+30.16

PERMIT BOUNDARY

STRUCTURE 6
SOIL/VEGETATION TEST PLOTS

ANCILLARY ROAD "H"

MATCHLINE SHEET 521,1009
SHEET 521,1004

REFUSE PILE B

REFUSE PILE C

POND 6

CENTERLINE ANCILLARY ROAD "G"

AREA PREVIOUSLY RECLAIMED BY OTHERS

SECTION LINE

POND 5

ANCILLARY ROAD H

PERMIT BOUNDARY

200 0 200 400
SCALE OF FEET

LEGEND

EXISTING POWER POLE

10 11
15 14

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DIV. OF OIL, GAS & MINING

RECEIVED
SEP 0 8 2005
DIV. OF OIL, GAS & MINING

Plotted: 02/06/03 14:14:08 U:\BSUN010600\New Permit\Drawings\c-stp-base.dwg CAhrens

DATE	02-10-03
PLOT DATE	
SCALE	SEE SCALE BAR
PROJECT NUMBER	BSUN010600

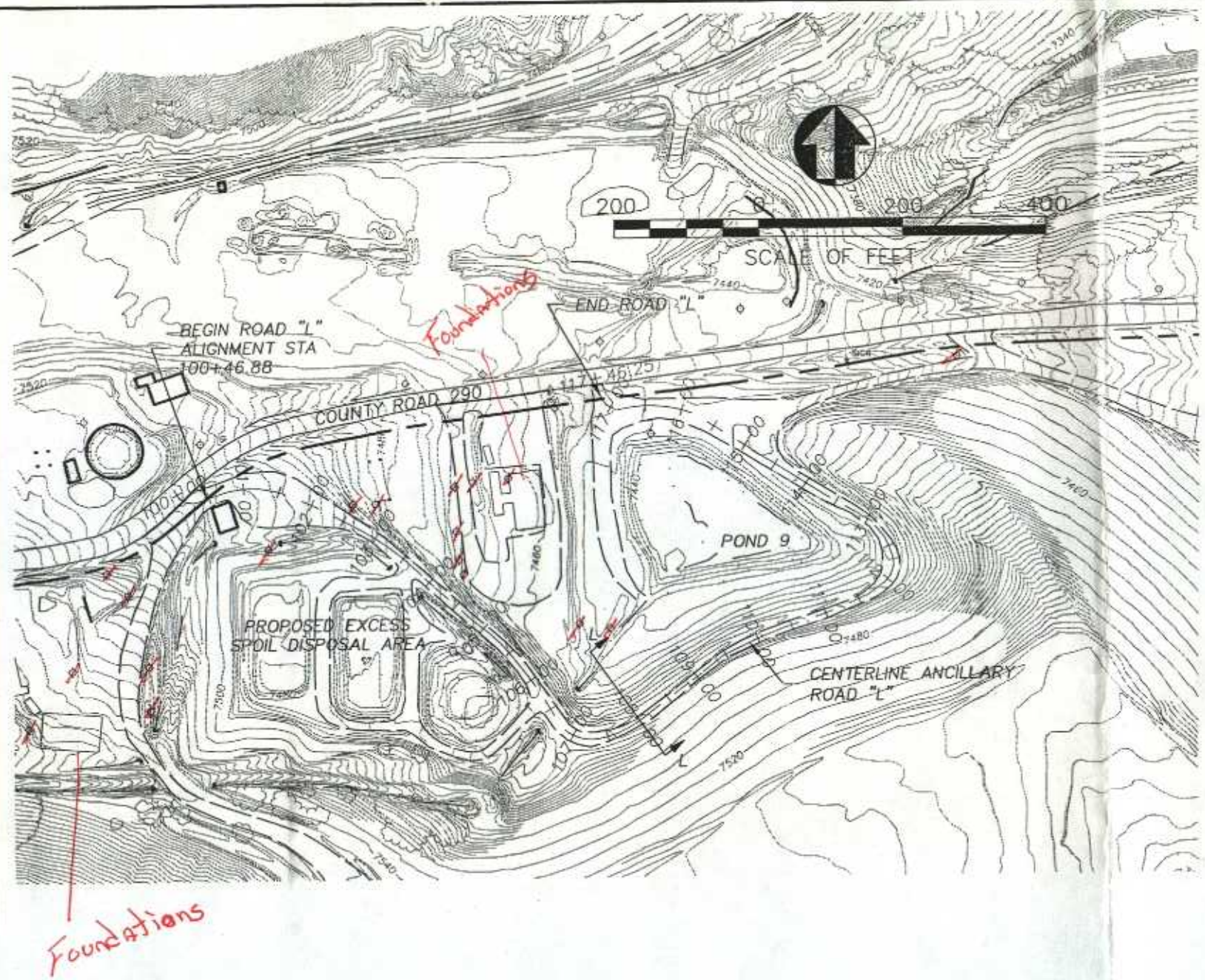
SCA / STAR POINT WASTE FUEL EXISTING FACILITIES AND SURFACE CONFIGURATION IN 2002

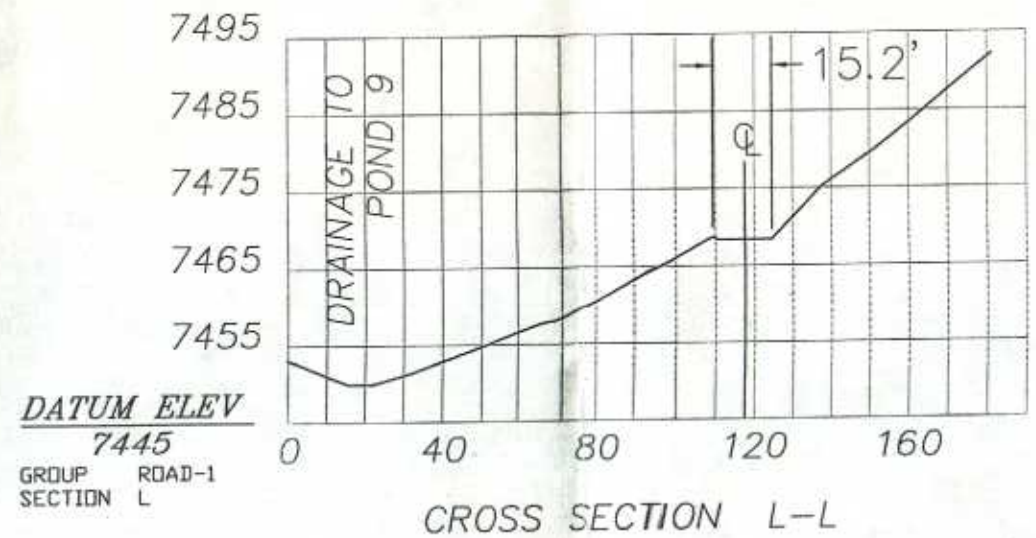
PSOMAS
2825 East Cottonwood Parkway, Suite 120
Salt Lake City, Utah 84121
(801) 270-5777 (801) 270-5782 (FAX)

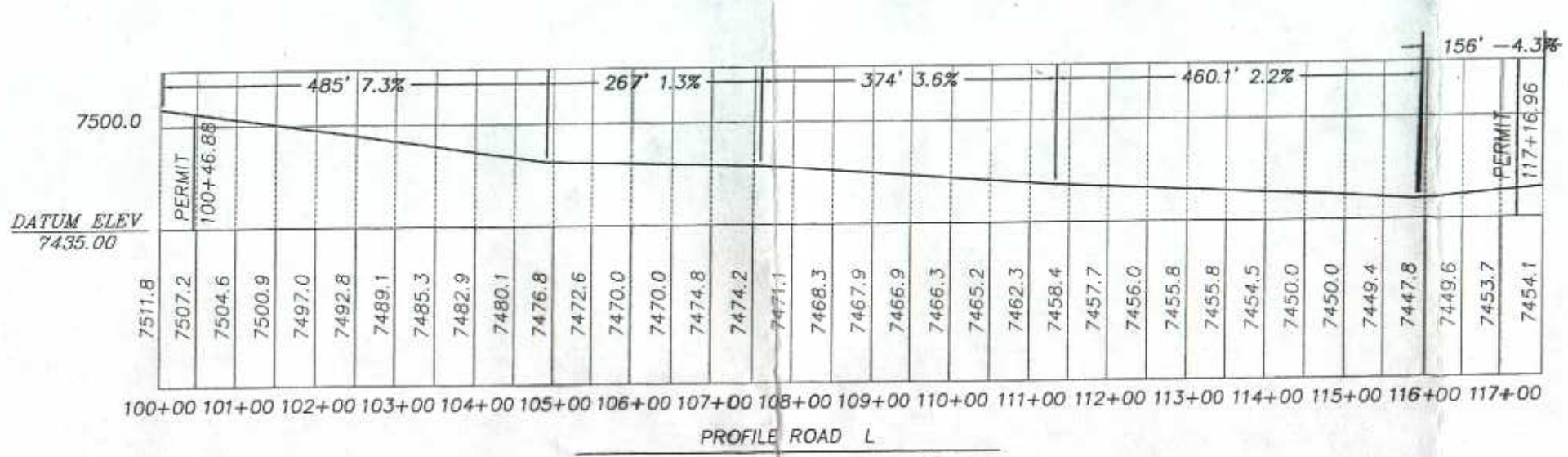
CRG	CEA	SSC
DRAWN	CHECKED	ENGINEER

MAP NUMBER

521.1004







PROFILE ROAD L

SCALE: HORIZ: 1" = 200' VERT: 1" = 100'

RECEIVED
SEP 0 8 2005
DIV. OF OIL, GAS & MINING

INCORPORATED
NOV 1 4 2003
DIV OF OIL GAS & MINING

RECEIVED
JAN 1 5 2004
DIV. OF OIL, GAS & MINING

PROFESSIONAL ENGINEER
LICENSED
STATE OF UTAH

DATE	02-15-02
PLOT DWG.	
SCALE	SEE SCALE BAR
PROJECT MANAGER	BSUN010600

SCA / STAR POINT WASTE FUEL
ROAD L
PLAN, PROFILE AND CROSS-SECTIONS

PSOMAS
2825 East Cottonwood Parkway, Suite 100
Salt Lake City, Utah 84121
(801) 270-5777 (801) 270-5781 (FAX)

CRG	AH	SSC

MAP NUMBER
534.100b

Sept. 20, 2002 - 17:35:40 DWG Name: U:\BSUN010600\New Permit\Drawings\C-534.100b.dwg Updated By: AHeck