

0050

FILE 007/035
FOLDER #2

SUNNYSIDE COGENERATION ASSOCIATES

POST OFFICE BOX 58087
SALT LAKE CITY, UTAH 84158-0087

September 15, 1993

RECEIVED

SEP 15 1993

DIVISION OF
OIL, GAS & MINING

Mr. Randy Harden
Division of Oil, Gas and Mining
3 Triad Center - Suite 350
Salt Lake City, UT 84180

RE: SUNNYSIDE COGENERATION ASSOCIATES PRO/007/035 - PAP SUBMITTAL,
SEPTEMBER 15, 1993

Dear Randy,

The enclosed report summarizes SCA's response to violations, Permit Conditions, and amendments. The contents of the included PAP reflect changes that were made up to September 15, 1993. It also reflects changes required by NOV's or other current issues. The PAP also includes updated portions of the text which reflect new information that has been obtained concerning the permit conditions. In addition, amendments that were submitted which have not yet been approved have also been incorporated into the appropriate chapters.

As required by DOGM, SCA has completed the necessary forms in regards to the enclosed information. Two sets of forms are included for your use.

Please review the enclosed information. If there are any questions, please feel free to call.

Sincerely,

AEB for

David R. Pearce

Authorized Member, Management Committee

Alane E. Boyd

Alane E. Boyd, P.E.

Senior Engineer

Enclosure

cc: Brian Burnett, Callister, Duncan & Nebeker

APPLICATION FOR PERMIT CHANGE

Title of Change: CHANGES TO SUNNYSIDE COGENERATION ASSOCIATES PAP FOR SEPTEMBER 15, 1993 SUBMITTAL - CHAPTERS ONE THROUGH TEN

Permit Number: PRO / 007 / 035

Mine: SUNNYSIDE COGEN. ASSOC.

Permittee: SCA

Description, include reason for change and timing required to implement: PLEASE SEE ATTACHED REPORT FOR DETAILED INFORMATION CONCERNING THE CHANGES TO EACH INDIVIDUAL CHAPTER. CHANGES MADE ENCOMPASS REQUIREMENTS OR PERMIT CONDITIONS, AMENDMENTS, DIVISION ORDERS, AND VIOLATIONS.

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Change in the size of the Permit Area? <u>0.71</u> acres <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Change in the size of the Disturbed Area? <u>0.71</u> acres <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Will permit change include operations outside the Cumulative Hydrologic Impact Area? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Will permit change include operations in hydrologic basins other than currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does permit change result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does permit change require or include public notice publication? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 7. Permit change as a result of a Violation? Violation # N93-40-5-1 of 9 thru N93-40-5-9 of 9 |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 8. Permit change as a result of a Division Order? D.O.# 93A |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 9. Permit change as a result of other laws or regulations? Explain: SEE ATTACHED REPORT |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 10. Does permit change require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the permit change affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does permit change require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Could the permit change have any effect on wildlife or vegetation outside the current disturbed area? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 14. Does permit change require or include soil removal, storage or placement? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 15. Does permit change require or include vegetation monitoring, removal or revegetation activities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 16. Does permit change require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 17. Does permit change require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does permit change require or include certified designs, maps, or calculations? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 19. Does permit change require or include underground design or mine sequence and timing? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does permit change require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided or revised for any change in the reclamation plan? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 22. Is permit change within 100 feet of a public road or perennial stream or 500 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Is this permit change coal exploration activity <input type="checkbox"/> inside <input type="checkbox"/> outside of the permit area? |

Attach 3 complete copies of proposed permit change as it would be incorporated into the Mining and Reclamation Plan.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Alane E. Boyd, Engineer, 9/15/93
Signed - Name - Position - Date

Subscribed and sworn to before me this 15th day of Sept, 1993

Marilyn Young
Notary Public

My Commission Expires: 3/8/97
Attest: STATE OF
COUNTY OF Salt Lake



NOTARY PUBLIC
MARILYN YOUNG
1121 E. 3900 So. #C100
Salt Lake City, Utah 84124
My Commission Expires
March 8, 1997
STATE OF UTAH

Received by Oil, Gas & Mining

ASSIGNED PERMIT CHANGE NUMBER

Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: CHANGES TO SUNNYSIDE COGENERATION ASSOCIATES PAP FOR SEPTEMBER 15, 1993 SUBMITTAL - CHAPTERS ONE THROUGH TEN

Permit Number: PRO / 007 / 035

Mine: SUNNYSIDE COGEN. ASSOC.

Permittee: SCA

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit change. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the exiting mining and reclamation plan. Include page, section and drawing numbers as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER ONE TEXT WITH UPDATED CH. ONE TEXT FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	ALL CHAP. ONE PLATES WITH UPDATED CH. ONE PLATES FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER TWO TEXT WITH UPDATED CHAP. TWO TEXT FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	ALL CHAP. TWO PLATES WITH UPDATED CHAP. TWO PLATES FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER THREE TEXT WITH UPDATED CHAP. THREE TEXT FROM 9/15/93
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<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER FOUR TEXT WITH UPDATED CH. FOUR TEXT FROM 9/15/93
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<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER FIVE TEXT W/ UPDATED CHAP. FIVE TEXT FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	ALL CHAP. FIVE PLATES WITH UPDATED CHAP. FIVE FROM 9/15/93
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	CHAPTER SIX TEXT WITH UPDATED CHAP. SIX TEXT FROM 9/15/93
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<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	NEW PLATES FOR EACH CHAP. AS DESIGNATED IN ATTACHED REPORT
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	NEW APPENDICES, FIGURES, AND TABLES AS DESIGNATED IN THE
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	ATTACHED REPORT.

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

PLEASE REFER TO ATTACHED REPORT FOR DETAILS CONCERNING EACH CHAPTER. THE REPORT OUTLINES EACH CHAPTER AND WHAT CHANGES WERE MADE. THE REPORT ALSO OUTLINES CHANGES MADE IN RESPONSE TO VIOLATIONS AND PERMIT CONDITIONS.

**SUNNYSIDE COGENERATION ASSOCIATES
STATUS REPORT FOR SEPTEMBER 15, 1993 PAP SUBMITTAL**

INTRODUCTION

The following report summarizes each item that is included with this report. The first section outlines each chapter's contents, the second section outlines the items submitted in response to outstanding violations issued to SCA, and the third section outlines the items submitted in reference to the permit conditions. In general, the items included have been updated to reflect the most recent information and status of the Permit Site.

SECTION ONE: CHAPTERS

For each chapter of the PAP, the following items are included:

- i) Chapter text that reflects the most recent information.
- ii) All new appendices, tables, and/or figures.
- iii) All Plates, revised or not, that correspond to that chapter.

It should be noted that figures, tables, and/or appendices that have not been updated since the original submittal, have NOT been included with this submittal. These items can be referred to in previous submittals and is so noted in the included text.

For the purposes of this report, "New" refers to items that have not previously been incorporated into the PAP and "Updated" refers to items that have been revised after June 30, 1993.

CHAPTER ONE: GENERAL CONTENTS

- a. Updated Chapter One text
- b. Updated Plate 1-1, SCA Permit Area Legal Description and SCA Lease Area Boundary

CHAPTER TWO: SOILS

- a. Updated Chapter Two text
- b. New Appendix, 2-9, Soil Borrow Material Report, Sunnyside Cogeneration Associates Permit Site; ACZ Inc., August 1993 based on SCS Soil Survey
- c. Updated Plate 2-1, Soil Identification Map

CHAPTER THREE: BIOLOGY

- a. Updated Chapter Three text
- b. New Figure 3-5, Reference Areas and Overall Land Productivity Assessment
- c. New Appendix 3-1, Riparian Vegetation Discussion
- d. New Appendix 3-2, Iron and TDS Report
- e. New Appendix 3-3, Reference Area Survey Results
- f. New Appendix 3-4, Plan for Fish Inventory

- g. New Appendix 3-5, Sunnyside Coal Mine Vegetation Monitoring Report
- h. Updated Plate 3-1, Pre and Post Law Disturbed Area Map
- i. Plate 3-2, Wildlife Resource Map

CHAPTER FOUR: LAND USE AND AIR QUALITY

- a. Updated Chapter Four text
- b. Plate 4-1, Surface Ownership Plat
- c. Updated Plate 4-2, Survey Area and Site Locations
- d. Plate 4-3, Sensitivity Zones
- e. Updated Plate 4-4, Existing Land Use

CHAPTER FIVE: ENGINEERING

- a. Updated Chapter Five text
- b. Updated Plate 5-1, Surface Facilities
- c. Updated Plate 5-2, Upper/Lower Haul Road Plan and Profile
- d. Updated Plate 5-3, Access Road Plan
- e. Updated Plate 5-5A through 5-5D, Topsoil Pile Cross Sections
- f. Updated Plate 5-6, Existing Refuse Piles with Limits of Slurry Cells
- g. Updated Plate 5-7, Slope Stability Criteria Map
- h. New Plate 5-8A, Road Classification
- i. New Plate 5-8B, Preliminary Typical Road Cross Sections, Sheet 1 of 2
- j. New Plate 5-8C, Preliminary Typical Road Cross Sections, Sheet 2 of 2

CHAPTER SIX: GEOLOGY

- a. Updated Chapter Six text
- b. New Appendix 6-5, Drilling and Sampling Plan, West Slurry Cell
- c. Updated Plate 6-1, Topographic Map showing Borehole Sample Locations, Sunnyside Mine Refuse Area
- d. Plate 6-2, Hydrogeologic Index Map
- e. Updated Plate 6-3, Index Map - Cross Sections
- f. Plate 6-4, Geologic Cross Section 'A-A'
- g. Plate 6-5, Geologic Cross Section 'B-B'
- h. Plate 6-4, Geologic Cross Section 'C-C'

CHAPTER SEVEN: HYDROLOGY

- a. Updated Chapter Seven text
- b. New Appendix 7-7, Hydrologic Data for Areas not Served by a Sediment Pond
- c. Updated Appendix 7-8, Operational (UPDES) Water Monitoring and Baseline Water Monitoring Schedules
- d. Updated Plate 7-1, Hydrologic Index Map
- e. New Plate 7-1A, Pasture Pond Drainage
- f. New Plate 7-1B, Old Coarse Refuse Road Drainage

- g. Updated Plate 7-2, Baseline Water Monitoring Locations
- h. Updated Plate 7-3, Operational Water Monitoring Locations
- i. Plate 7-4, Coal Slurry Water Sediment Control System
- j. Updated Plate 7-5, Slurry Ditch and Surrounding Areas
- k. Updated Plate 7-6, Diversion and Culvert Locations
- l. Updated Plate 7-7, Coarse Refuse Toe Sediment Pond Record Drawing
- m. Updated Plate 7-8, Railcut Sediment Pond Record Drawing
- n. Updated Plate 7-9, Pasture Sediment Pond Design
- o. Updated Plate 7-10, Old Coarse Refuse Road Pond Design
- p. Updated Plate 7-11, Borrow Area Pond Record Drawing
- q. Updated Plate 7-11B, Borrow Area Pond Drainage
- r. Updated Plate 7-12, East and West Slurry Cell Record Drawing
- s. Updated Plate 7-13, Coarse Refuse Toe and Railcut Pond Cross Sections
- t. Updated Plate 7-14, Old Coarse Refuse Road/Pasture Sediment Pond Cross Sections
- u. Updated Plate 7-15, Borrow Area Pond Cross Sections
- v. Updated Plate 7-16, East and West Slurry Cell Cross Sections

CHAPTER EIGHT: BONDING

- a. Updated Chapter Eight text
- b. Updated Plate 8-1, Areas for Bond Quantities

CHAPTER NINE: MINING PLAN

- a. Updated Chapter Nine text
- b. New Figure 9-2, SCA Mining Process
- c. New Appendix 9-3, Noncombustible Waste Disposal Plan Report and Calculations
- d. Updated Plate 9-1A, Noncombustible Waste Pile Design
- e. Updated Plate 9-1B, Noncombustible Waste Pile Cross Sections
- f. New Plate 9-1C, Noncombustible Waste Pile Record Drawing
- g. Updated Plate 9-2, Storage Area Design
- h. Updated Plate 9-3, Reclamation Sequencing

CHAPTER TEN: RECLAMATION PLAN

- a. Updated Chapter Ten text
- b. Updated Plate 10-1, Post Mining Reclamation Plan

SECTION TWO: VIOLATIONS

The following section outlines information contained in this submittal that refers directly to the requirements of NOV's that were issued on August 17, 1993. Violations that have not been previously abated and/or are due on or before September 15, 1993 are addressed.

VIOLATION 1 of 9 - Failure to Preform Contemporaneous Reclamation

Response: SCA submitted a letter to DOGM on August 24, 1993 discussing the plans for contemporaneous reclamation for the coarse refuse lifts. The letter referred to Chapter Nine, page 900-11, for a discussion on contemporaneous reclamation planned for the SCA Permit Site. As stated in the letter, contemporaneous reclamation will be employed on the third lift of the coarse refuse pile. No other contemporaneous reclamation will occur due to the fact that the coarse refuse is planned to be mined in the near future for use at the cogeneration facility.

VIOLATION 2 of 9 - Failure to conduct coal mining and reclamation operations in accordance with the approved plan

Response: Chapter Nine of the PAP has been updated to include a plan for the utilization of three storage areas which will be utilized for both fine and coarse refuse. Sections 9.6.3 and 9.11.4 discuss the necessary preparation of the three storage areas, drainage control, capacity and general usage. Plate 9-2 shows the detailed design of these areas. Hydrologic calculations are included in Appendix 7-3 for the Pasture Pond Drainage area which incorporates the Storage Areas.

VIOLATION 3 of 9 - Failure to maintain the fence around the revegetation test plot

Response: This violation has been abated, therefore, it is not specifically addressed in this submittal.

VIOLATION 4 of 9 - Failure to design appropriate sediment control measures

Response: Chapter Seven of the included submittal has been updated to include sediment control measures for the required topsoil piles. Appendix 7-7 includes detailed hydrologic and sedimentation calculations concerning the topsoil piles and berm details for each pile.

VIOLATION 5 of 9 - Failure to classify each road

Response: New Plates 5-8A, 5-8B, and 5-8C have been incorporated into Chapter Five of the enclosed PAP. The plates show road classifications and typical cross sections for various sections of the roads, respectively. The text has also been updated to reflect these changes.

VIOLATION 6 of 9 - Failure to dispose of sediment pond cleanout material

Response: This violation has been abated, therefore, this violation is not addressed in this submittal.

VIOLATION 7 of 9 - Failure to separate and segregate topsoil from an area prior to disturbance

Response: Plate 3-1, Pre and Post Law Disturbed Area Map, has been updated to reflect changes to the Permit Site in regards to this violation.

VIOLATION 8 of 9 - Failure to conduct coal mining and reclamation only on lands specifically designated in the permit

Response: Chapter Seven of the PAP has been revised to include revised calculations for the Pasture Pond outlet diversion. Appendix 7-3 includes revised calculations for the Pasture Sediment Pond.

In order to resolve the issue of the revegetation test plot area, SCA is proposing to include this area within the SCA Permit Boundary for the purposes of satisfying the requirements of this violation. Plate 1-1, Lease Area and Plate 3-1, Pre and Post Law Disturbed Area Map have been updated to include the entire revegetation test plot area as part of the SCA Permit Area. Also, a description of adjacent activities is included in Chapters 4, 5 and 7.

VIOLATION 9 of 9 - Failure to provide complete and accurate ownership and contractual information as required by R645-301-100

Response: SCA has included the required corporate structures into Chapter One of the PAP. Chapter One, Sections R645-301-112.340 through 112.420 have been revised to include these additions.

SECTION THREE: PERMIT CONDITIONS

The following discussion outlines the requirements of each Permit Condition and the specific portions of the September 15, 1993 PAP that address these requirements. Information submitted previously for each condition has been incorporated into the PAP in the appropriate chapters. Information in regards to the Permit Conditions, received after the July 1 deadline, has also been incorporated into the September 15, 1993 PAP.

PERMIT CONDITION NO. 1 - R645-301-117.300 (PGL)

Within ten days, but no later than April 30, 1993, of signing the Operating Agreement between Sunnyside Cogeneration Associates (SCA) and Sunnyside Coal Company (SCC) for the operational and reclamation responsibilities for the two contiguous permit areas under the Utah Coal Program, the permittee must submit, for inclusion in the PAP, a copy of the Operating Agreement between SCA and SCC.

Response:

The conditions of this Permit Condition were terminated on August 6, 1993. The updated PAP included with this report does not address this permit condition.

PERMIT CONDITION NO. 2 - R645-301-233 (HS)

By July 1, 1993 the permittee must adequately characterize the proposed borrow material (i.e., soil analyses and soil profile descriptions) down to the plan excavation depth to include the material which will remain and act as the plant growth medium for the reclamation of the borrow areas and submit for inclusion in the PAP. The suitability and availability of the proposed substitute topsoil material which covers the Coarse Refuse Pile and the embankments of the East and West Slurry Cells must be determined and submitted for inclusion in the PAP. In addition for inclusion in the PAP, the permittee must describe and provide for the protection of the cover material and discuss its temporary salvage and storage while mining activities proceed.

Response:

ACZ, Inc. has completed a report entitled "Soil Borrow Material Report for the Sunnyside Cogeneration Associate (SCA) Permit Site" which is included as Appendix 2-9 of the September 15, 1993 submittal. Discussion of the suitability and availability of the proposed borrow material is also included in Chapter 2 of this submittal. A discussion of the salvage of the material covering the Coarse Refuse Pile and the East and West Slurry Cells is included in Appendix 9-3.

PERMIT CONDITION NO. 3 - R645-301-321.100 (SW)

By July 31, 1993 the permittee must submit, for inclusion in the PAP, a detailed discussion on the Riparian vegetation type. This discussion must include grasses, forbs, and shrubs found within this zone.

Response:

The riparian vegetation discussion has been incorporated into Chapter Three, Appendix 3-1. Chapter Three has been updated to include a discussion of the findings of this report.

PERMIT CONDITION NO. 4 - R645-301-321.200 (SW)

By July 31, 1993, the permittee must submit, for inclusion in the PAP, a discussion of the productivity of the land in terms of average yield of forage.

Response:

Mr. George Cook conducted a site visit in June, 1993 to provide an overall land productivity report for the SCA Permit Site. He focused mainly on the reference areas, but was able to provide an overall view of the site. The summary provided by George Cook is included with this submittal. It is included in Chapter Three as Figure 3-5. In addition, Chapter Three has been updated to reference this summary.

PERMIT CONDITION NO. 5 - R645-301-322.100 (SW)

By September 30, 1993, the permittee must submit, for inclusion in the PAP, a report of the fish inventory in Icelander Creek and adjacent areas. The permittee must assist the DWR in an inventory of Icelander Creek for fish species to the Price River, in Icelander Wash and at the discharge at the base of the refuse pile. Two Category 2 fish species, Roundtail chub and Flannelmouth sucker, are likely to be found at the Price River and Icelander Wash confluence. The Roundtail chub is likely to be listed to the Threatened and Endangered Species list. The DWR will provide a report of this inventory. A copy of the DWR report must be submitted within 10 days of receipt for inclusion in the PAP.

Response:

SCA has obtained the services of Pioneer Environmental to conduct the necessary work to satisfy the requirements of this condition. At this time, Pioneer has contacted Ken Phippen of the DWR to schedule a site visit to conduct this work. Chapter Three of the PAP discusses these plans. Also, Appendix 3-5 includes correspondence between Pioneer and the DWR in regards to this inventory. The correspondence outlines the proposed scope of work for the inventory. It should be noted that the correspondence included in Appendix 3-5 specifies dates for conducting the work which are no longer feasible. SCA has recently obtained a verbal commitment from both the DWR and Pioneer that the inventory will be conducted and the data made available prior to September 30, 1993.

PERMIT CONDITION NO. 6 - R645-301-330 (SW)

Within 30 days of permit approval the permittee must provide a discussion, for inclusion in the PAP, as to tolerable limits of iron and TDS in water for plants, livestock, wildlife and fish and the impact of the mining operation on these limits due to the fact that the discharge at the base of the refuse pile has been identified to have exceeded standards for iron and TDS. (Note: The applicant's response to this initial deficiency was referenced to R645-301-728.317. This is not an

acceptable response.)

Response:

The TDS and Iron report which was submitted on August 6, 1993 has been incorporated into the PAP as Appendix 3-2. Chapter Three text has also been updated to reference this report.

PERMIT CONDITION NO. 7 - R645-301-353.120 (SW)

By July 31, 1993 the permittee must submit a reevaluated seed mixture for inclusion in the PAP. The permittee must evaluate the seed mixture proposed for final reclamation planting after the reference areas have been sampled. The seed mixture must incorporate some of the components of the undisturbed adjacent area. This finalized seed mixture must then be submitted for inclusion in the PAP.

Response:

Mr. Pat Collins of Mt. Nebo Scientific has reevaluated the seed mixtures based on the results of the reference area surveys. The finalized mixes are included in Appendix 3-3 of this submittal and area referenced in Chapter Three. The seed mixtures have also been updated in the final reclamation plan. (Plate 10-1).

PERMIT CONDITION NO. 8 - R645-301-356 (SW)

By July 31, 1993 the permittee must submit, for inclusion in the PAP, the data, discussions, and results of the survey of the proposed reference areas.

Response:

Mr. Pat Collins of Mt. Nebo Scientific has completed the reference area surveys and the completed report is included with this submittal in Appendix 3-3. The methods used to conduct the surveys are outlined in Chapter Three.

PERMIT CONDITION NO. 9 - R645-301-521 (JK & HS)

By July 1, 1993 the permittee must submit, for inclusion in the PAP, accurate representations of the disturbed area within the permit area of the Sunnyside Cogeneration Associates facility. This must include, but not be limited to, current maps of the area which accurately depict the present configuration of the land within the permit area. All applicable maps must be updated to depict the current and accurate configurations. (Note: There are major discrepancies between the maps in the PAP and those found in the John T. Boyd report which comprises Appendix 9. Most of the maps in the PAP are based on outdated information from the Sunnyside Coal Company PAP and, therefore, do not accurately depict the present configuration of the site.)

Response:

Included with this submittal are updated maps. All maps are based on accurate and recent information regarding the SCA Permit Site. Many of the drawings have been revised since the June 30 submittal and some new plates have been added. All drawings are listed in the Table of Contents of each chapter and included at the end of each chapter.

PERMIT CONDITION NO. 10 - R645-301-521.143 (JK)

By July 1, 1993 the permittee must submit, for Division approval and inclusion in the PAP, an adequate and accurate plan for the disposal of noncombustible waste. (Note: According to the John T. Boyd report, included in Chapter 9, "Mining Plan", noncombustible waste comprises about 5% of the total pile, or 460,000 tons of material. Using the density of 3375 pounds per cubic yards given on page 3-6, there may be about 273,000 cubic yards of noncombustible material. There is no demonstration in the PAP that this volume of material will even fit into the refuse disposal facility shown on Plate 9-1a. In fact, the volume of the facility shown on Plate 9-1a is only about 217,000 cubic yards, which includes the required 4 feet of cover material.)

Response:

The plan for the disposal of noncombustible waste is included as Appendix 5-7. In addition, Plates 9-1A, 9-1B, and 9-1C show the design of the noncombustible waste disposal site, accurate cross sections, and current topography, respectively. Plate 9-1B has been updated to show more adequate sections as requested by Jesse Kelly of DOGM and Plate 9-1C is a new drawing which shows a more detailed configuration of the site.

PERMIT CONDITION NO. 11 - R645-301-521.165 (JK)

By July 1, 1993, the permittee must submit, for Division approval and inclusion in the PAP, plans for the stockpiling of reclamation borrow material. The permittee plans to dispose of noncombustible waste material in the same areas from which plans are borrow reclamation cover material (see Appendix 9-1, Exhibit 1, and Plate 8-1) but there is not provision in the PAP for stockpiling the reclamation borrow material prior to disposal of the noncombustible waste. These plans must include sound estimates of the volume of the borrow material as well as designs for the storage facility or facilities into which the material will be placed.

Response:

The plans for the stockpiling of reclamation borrow material are outlined in Appendix 9-3. Chapter Nine has also been updated to include these changes.

PERMIT CONDITION NO. 12 - R645-301-528.100 (HS)

By July 1, 1993, the permittee must clearly substantiate the handling and disposal of waste with designs and plans to determine the quantity of topsoil necessary to reclaim the site and submit for inclusion in the PAP. The permittee states in the PAP that approximately 460,000 cubic yards of borrow material will be necessary for the reclamation of the site subsequent to the removal of the combustible refuse material. However, the permittee's representation of the quantity and location

of noncombustible material and inaccessible material (below elevation 6210 ft.) is not consistently represented in the PAP. Therefore, the handling and disposal of waste must be definitely stated and substantiated with designs and plans to enable the Division to verify and determine the quantity of topsoil necessary to reclaim the mine site.

Response:

The amount of topsoil available is shown on Plate 5-5A through 5-5D. These maps show accurate topsoil configurations and quantities. All topsoil piles were surveyed in May and June, 1993 and the quantities are representative of the data collected during the surveys.

Available borrow material quantities have been determined and are included in Chapter Two. A final report submitted by ACZ, Inc. is included in Appendix 2-9. The report details each borrow material site and the quantity of available material.

PERMIT CONDITION NO. 13 - R645-301-540 (JK)

By July 1, 1993, the permittee must submit, for Division approval and inclusion in the PAP, a complete, stand-alone reclamation plan for worst case scenario (worst case would occur if the site were abandoned and had to be reclaimed in essentially its present configuration) and final reclamation (final reclamation of the site after the full anticipated life of the operation). The reclamation plan for each scenario must be comprehensive and independent of the other. Each reclamation plan must include its own text, maps, volume estimates (including but not limited to topsoil volumes, borrow material and sedimentation pond volumes), reclamation cost estimates, drainage control plan, etc. These plans must be based on the revised maps discussed in Condition R645-301-521 (JK & HS).

Response:

As stated in the June 30 submittal, SCA commits to completing the Worst Case Scenario Reclamation Plan by December 15, 1993. At that time, appropriate discussions and applicable maps will be submitted and incorporated into the PAP for review.

PERMIT CONDITION NO. 14 - R645-301-542.800 (JK & HS)

By July 1, 1993, the permittee must submit for Division approval and inclusion in the PAP: 1) accurate and adequate as-built surveys of the topsoil stockpiles which must provide sufficient information to determine the volume of topsoil within each topsoil stockpile; 2) adequate and accurate mass balance calculations to show where the required borrow material is to come from and to demonstrate that there is adequate borrow material to reclaim this site [these calculations must be based on separate surveys and/or on the revised maps discussed in condition R645-301-521 (JK & HS)]; and 3) adequate and accurate substantiation of the volumes of the sedimentation ponds.

Response:

In response to 1) "...accurate and adequate as-built surveys of the topsoil stockpiles which must provide sufficient information to determine the volume of topsoil within each topsoil stockpile;" Plate 5-5A through 5-5D includes cross sections of all existing topsoil piles within the SCA Permit Area. Also shown on these Plates are tables outlining the volumes of each topsoil pile. Quantities outlined on these plates have been incorporated into Chapter Two, Section 234.

In response to 2) "...adequate and accurate mass balance calculations to show where the required borrow material is to come from and to demonstrate that there is adequate borrow material to reclaim this site...". As required, surveys of all the potential borrow material sites have been completed and is included in a report entitled "Soil Borrow Material Report" which is included as Appendix 2-9. The report outlines borrow material quantities, methods utilized, sampling procedures and results. According to the report, there is adequate material to cover the site. The results have been incorporated into Section 224.

In response to 3) "...adequate and accurate substantiation of the volumes of the sedimentation ponds." All sedimentation ponds, except for the Clear Water Pond and Slurry Ponds 1 and 2 have been surveyed and all volume calculations have been recalculated based on the present configurations of the ponds. The volumes of the ponds are shown on the Record Drawings, Plates 7-7 through 7-11 and Plate 9-1C. The drawing titles are outlined in the corresponding chapters' Table of Contents. All Plates are included with this submittal.

SCA has committed, in response to Permit Condition #15, to complete the survey and record drawing for the Clear Water Pond and Slurry Ponds 1 and 2 by November 1, 1993.

PERMIT CONDITION NO. 15 - R645-301-722, R645-301-732 and R645-301-742 (KW)

By July 1, 1993, the permittee must submit sediment pond designs, for inclusion in the PAP, based on an on-site survey, which includes maps with adequate contours (1-2 foot contours), cross sections including the discharge structure designs with elevations and slopes of outlet pipes, and the slopes of diversions within the permit area.

Response:

Record drawings for the sediment ponds are included in Chapter Seven. Changes have been made to the Record Drawings since the June 30 submittal based on discussions with Ken Wyatt of DOGM. Specifically, Plates 7-9, 7-10 and 7-14, Pasture Pond Record Drawing, Coarse Refuse Road Record Drawing, and the Pasture Pond/ Coarse Refuse Road Cross Sections, respectively, have been revised for this submittal. Plates 7-1A and 7-1B have also been submitted outlining the watershed areas for Pasture Pond and Old Coarse Refuse Road Pond. Plate 7-6 will be continually updated as watersheds area analyzed and further diversion clarifications are made. Nonetheless, an updated copy of Plate 7-6 is included showing accurate diversions and culverts for the Pasture Sediment Pond and the Old Coarse Refuse Road Pond.

SCA committed to having record drawings for Slurry Ponds One and Two and the Clear Water Pond by November 1, 1993 in the June 30 submittal. Conditions are still not conducive to surveying at this time, therefore, SCA still commits to the November 1 deadline. These drawings

are NOT included with this submittal. In addition, Plate 7-4, Coal Slurry Water Sediment Control System, will also be updated by November 1, 1993, as specified in the June 30, submittal. However, a copy of a previous draft of Plate 7-4 has been included with this submittal for reference purposes only. When survey data is available, Slurry Pond #1 Record Drawing, Slurry Pond #2 Record Drawing, and the Clear Water Pond Record Drawing will be included at the end of Chapter 7 as Plate 7-17, Plate 7-18, and 7-19, respectively. Cross Sections will also be included with Plate numbers to be determined at a later date.

PERMIT CONDITION NO. 16 - R645-301-728 (KW)

The permittee must submit, for inclusion in the PAP, a copy of the U.S. Fish and Wildlife Service study and/or report concerning water loss in the Colorado River Basin within 30 days following the issuance of the study and/or report.

Response:

Presently, there is no new information available from the USFW concerning water loss in the Colorado River Basin. SCA commits to providing information obtained from the USFW concerning this matter when it is received. This permit condition is not addressed in the September 15, 1993 PAP.

PERMIT CONDITION NO. 17 - R645-301-731.200 (KW)

Within 30 days of permit approval, the permittee must submit, for inclusion in the PAP, a schedule for each of the water monitoring sites to be sampled with a list of the parameters to be analyzed at each site and the schedule for sampling as baseline and operational parameters.

Response:

SCA has incorporated the latest changes discussed between SCA and DOGM on September 1, 1993 into the September 15, 1993 PAP submittal. These revisions are included in the water quality monitoring report in Appendix 7-8 of the PAP. Plates 7-2 and 7-3 show the locations of the monitoring sites.

PERMIT CONDITION NO. 18 - R645-301-731.200 (HS)

The permittee must commit, within 30 days of permit approval, to conduct additional analyses, for the purposes of determining the acid and/or toxic and alkalinity forming potential of the existing slurry ponds and the coarse refuse pile material. The commitment must include the analysis of all the constituents outlined in the Division's Guidelines for the Management of Topsoil and Overburden, Table 6. The permittee must also specify the sample site locations to be selected from the forty-five refuse drill holes (Note: Drilling, logging and sampling of refuse material did occur as early as 1991. Please refer to Appendix 9-1, page 3-3) and the depth increment to be analyzed (not "Half the available samples..." as state on page 600-10 of the PAP).

In addition, by no later than July 1, 1993, the permittee must submit plans and laboratory results,

for inclusions in the PAP, from the above sampling of the refuse and slurry material. Plans must include a discussion of the potential for, and mitigation of, water quality impacts and/or revegetation problems attendant to the reexcavation and disposal of the coal refuse material.

Response:

Due to problems that occurred with the samples that were taken previously by John T. Boyd and stored at CT&E testing laboratory, a new sampling plan is being submitted with the September 15, 1993 PAP submittal. The plan is included as Appendix 6-5 and discussed in Chapter Six.

PERMIT CONDITION NO. 19 - R645-301-731.730 (KW)

By July 1, 1993, the permittee must submit, for inclusion in the PAP, accurate and adequate maps depicting locations and elevations of all water monitoring points within the permit area of the Sunnyside Cogeneration Associates facility.

Response:

Plates 7-2 and 7-3 have been updated to show more detailed locations and elevations of both the baseline and operational water quality monitoring locations. Updated Plates 7-2 and 7-3 are included with this submittal. In addition, applicable water monitoring locations have been included on Plates 7-1, 7-9, 7-10 and 7-14.

PERMIT CONDITION NO. 20 - R645-301-812.300 (PGL)

By July 1, 1993, the permittee must submit, for inclusion in the PAP, the reclamation cost estimate based upon accurate and adequate information provided in all applicable conditions of this permit. A revised adequate reclamation bond must be provided to the Division within 30 days of Division approval of the revised reclamation cost estimate.

Response:

In the June 30 submittal, SCA committed to completing the reclamation cost estimate by December 15, 1993. SCA remains committed to this deadline. Information concerning borrow material quantities has been obtained, but due to unforeseen problems that occurred concerning the coarse refuse samples, SCA is unable to test the samples that were taken by John T. Boyd. Therefore, a new sampling and testing plan has been prepared and is included for review in Chapter Six of the September 15, 1993 submittal. When the sampling and testing plan is approved and testing is completed, SCA will revise the reclamation cost estimate.

