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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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September 3, 1993

CERTIFIED RETURN RECEIPT
P 074 978 364

Mr. David Pearce
Sunnyside Cogeneration Associates
P.O. Box 58087
Salt Lake City, Utah 84158-0087

Re: Draft Analysis and Findings for Permit Conditions, Sunnyside Cogeneration Associates, Refuse and Slurry, ACT/007/035, Folder #2, Carbon County, Utah

Dear Mr. Pearce:

In order to resolve the numerous proposals submitted to the Division in response to the Permit Conditions, abatement plans for violations, as well as requested changes to the permit by the operator, the Division has proposed and SCA has agreed that all of the previously submitted information would be consolidated into a single and complete resubmittal of the operating and reclamation plan. This resubmittal shall in essence, replace the existing PAP with the exception of information in the appendices which was provided and has not been modified or re-written as a result of the above changes.

A Draft Analysis and Findings of Permit Conditions is enclosed and based on information received by the Division up to and including August 27, 1993. As agreed by Sunnyside Cogeneration (SCA), submittal of a revised and consolidated plan shall be presented to the Division on or before September 15, 1993. SCA may use the Draft Analysis and Findings of Permit Conditions submitted with this letter in conjunction with the information to be submitted on September 15.

A finalized review of these Permit Conditions is anticipated shortly following the September 15, 1993 submittal by SCA. Several extensions to Permit Conditions due dates have been afforded by the Division since issuance of the Permit. The Division believes that further extensions regarding the completion of these Permit Conditions will not occur, with the exception of the individual Permit Conditions noted in the attached review.

The final Analysis and Findings of the Permit Conditions shall be based on the information provided in the September 15, 1993 submittal of revised plan by SCA. Previous proposals and submittals by SCA will not be considered in the final evaluation of the permit and the Permit Conditions will rely on the September 15, 1993 submittal. The intent of this is to eliminate conflicting information within the plan and the previous proposals and present a consolidated and concise operating and reclamation plan.



DOGM MBM ACT/007/035 FLDR #2

P 074 978 364

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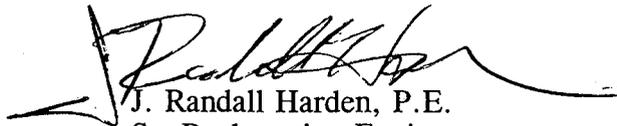


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September 3, 1993

Division staff is aware of the limited amount of time left to address and complete these Permit Conditions and technical support in assisting SCA in addressing these conditions in the next few weeks is a priority. Please feel free to contact any of the technical staff reviewing these conditions for advice or opinion on an informal basis. We look forward to resolving and eliminating as many of these conditions as possible in the very near future.

Also note that all correspondence or other written information regarding SCA's plan should be sent to the attention of myself. I will be coordinating all permitting activities in regard to the Sunnyside Cogeneration permit.

Sincerely,



J. Randall Harden, P.E.
Sr. Reclamation Engineer

Enclosure

cc: L. Braxton
P. Grubaugh-Littig
J. Kelley
H. Sauer
S. White
K. WyattJ

SCACOND.RES

DRAFT ANALYSIS AND FINDINGS
OF
PERMIT CONDITIONS

September 3, 1993

SUNNYSIDE COGENERATION

ACT/007/035

The following review enumerates the Permit Conditions as they were issued with the Permit on February 4, 1993 and provides draft analysis and findings based on the information submitted as of August 27, 1993. Finalized analysis and findings on these Permit Conditions will be made following the September 15, 1993 submittal by SCA.

In general, some of the Permit Condition response information has not been submitted in a manner for incorporation into the existing operation and reclamation plan. Consequently, the information submitted has not been properly identified as to the location in which the information is to be placed in the plan. Updates of the contents for the plan and references to the materials submitted in these proposals has also not been provided. Duplicate sections with conflicting information have also been received which make evaluation of the technical information as well as organization of the information into the plan ineffective. It is anticipated that consolidation of the material for resubmittal on September 15, 1993 will resolve these problems.

Many of the submittals did not use the Permit Change Request Forms which have been required by the Division since July 1, 1993. These forms were implemented to clearly identify the nature and the extent of the proposed permit changes and to allow adequate tracking of these changes as they are reviewed and approved. All future submittals must be presented to the Division utilizing the Permit Change Request Forms. Any information not submitted under the Division required format will not be accepted.

Information submitted in response to the Permit Conditions may present conflicts between permit information found in SCC's operation and reclamation plan. Such conflicts are not discussed in the context of this review but may have considerable impact on the implementation of any plan changes once approved.

PERMIT CONDITION 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.*

Analysis:

A letter dated April 30, 1993 from SCC stated that negotiations are still in progress. NOV N93-40-4-1 was written on May 6, 1993 for failure to meet the requirements of this Permit Condition. Abatement for the violation was initially June 15, 1993 and was later extended to June 30, 1993 and finally July 30, 1993. Meetings were held on June 16, 1993 and July 29, 1993 in regard to abatement of the violation and meeting the Permit Condition. On July 30, 1993 a letter was submitted by the Division to both SCC and SCA which indicated that in the absence of an approved operating agreement, the Division must treat the coal refuse area as a jointly permitted area and require both parties to conform to all requirements of the coal regulations. SCC responded to the letter taking exception to the condition of the Division's letter. On August 6, 1993 another joint letter to SCA and SCC was submitted by the Division reaffirming its position that, unless the parties reach an agreement which clearly delineates their respective liabilities and obligations on the property, the Division cannot relieve either party from any obligations under the Coal Act.

Findings:

Based on the content of the letter submitted by the Division on August 6, 1993, the conditions of Permit Condition 1 should be terminated. However, failing to reach an acceptable Operating Agreement, both parties, SCA and SCC, shall be jointly liable for the shared permitted area.

In accordance with R645-301-117.300, the plans of a facility or structure that is to be shared by two or more separately permitted coal mining and reclamation operations may be included in one permit application and referenced in the other applications. In accordance with R645-301-800, each permittee will bond the facility or structure unless the permittees sharing it agree to another arrangement for assuming their respective responsibilities. If such agreement is reached, then the application will include a copy of the agreement between or among the parties setting forth the respective bonding responsibilities of each party for the facility or structure. The agreement will demonstrate to the satisfaction of the Division that all responsibilities under the R645 Rules for the facility or structure will be met.

Additionally, SCA and SCC have failed to develop and consolidate a single and concise plan for the shared facilities. Plans and designs for the shared permit area must be consolidated into a single plan which may be included in one permit application and referenced by the other, or, a separate operation and reclamation plan for the shared area must be developed jointly and shared by both permittees. Conflicts associated with having two different sets of plans for the shared permitted area will only continue to generate additional permitting and compliance problems.

Findings on this Permit Condition as modified will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Some preliminary information has been submitted to the Division in regard to this Permit Condition. Submittal of the final report and analysis for incorporation into the operation and reclamation plan has been extended to September 15, 1993.

SCA has identified and proposed a topsoil borrow site within the permit area. The suitability and volume of the proposed substitute topsoil material has been assessed by Mr. Jim Nyenhaus representing ACZ, Inc. of Steamboat Springs, Colorado and is contained in a technical report which will be submitted to the Division on September 15, 1993. Preliminary discussions and on site observations made during soil survey activities, indicates that the

proposed substitute topsoil will be suitable growth medium for final reclamation of the SCA facility. However, SCA has not demonstrated (See discussion under Condition No.18) that ample quantities of nontoxic and noncombustible material exist to control the impact of coal mining activities on surface and groundwater, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved post mining land use (R645-301-553.300, R645-301-731.100 et. seq. through R645-301-731.522).

Findings:

Sufficient information has not been provided at this time to determine whether or not the requirements of this Permit Condition have been met. It is assumed that the requirements of the Permit Condition could be met in the September 15, 1993 submittal. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Riparian vegetation information was submitted to the Division for review on July 30, 1993. Field verification of species types by the Division and technical clarification of some of the information provided may be required prior to complete acceptance of the information. It is recommended that coordination with SCA and the Division continue in regard to this Permit Condition so that information submitted on September 15, 1993 is adequate for complete approval.

Findings:

A preliminary review of this information indicates that the requirements of this Permit Condition could most likely be met upon review of the finalized information to be submitted on September 15, 1993. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Information required in regard to this Permit Condition was submitted to the Division on June 30, 1993. Preliminary review of this information indicates that the submittal meets the requirements of this Permit Condition.

Findings:

Resubmittal of the information incorporated into the response due on September 15, 1993 will in all likelihood meet the requirements of this Permit Condition. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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. Baseline transects must be established above and below 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.*

Analysis:

The Division received a request from Sunnyside Cogeneration Associates (SCA) to modify the scope of work required in Permit Condition #5. This request was from Alane E. Boyd, Eckoff, Watson and Pretor (EWP) on July 14, 1993 and Fred Finlinson on July 28, 1993.

The request to modify Permit Condition #5 was based on the position that the scope of work has been modified since the issuance of the condition. Originally the condition stated that The Utah Division of Wildlife Resources (DWR) would conduct the inventory and provide a report. In an April 28, 1993 letter from DWR to EWP, DWR stated that due to lack of funding SCA would have to conduct the survey and provide the report.

SCA must have a qualified person present at the inventory. DWR has stated that they would provide an expert on the Colorado endemic fish, at least one or two people, and DOGM has volunteered to assist in the field work. The report would consist of a table to insert in the permit listing species, sizes and numbers if available. The report should be simple to prepare and could mostly be prepared in the field. The DWR stated that field time should require two field days in the summer and one field day in the spring. This type of field requirement does not constitute "conducting two extensive studies on the greater Grassy Trail drainage area" as stated by Fred Finlinson letter dated July 28, 1993.

The permittee has not provided the Division with an alternative proposal to the 8-site, two-season sampling requirement based on scientific merit, which was the understanding of the June 30 meeting. SCA has continued to work with DWR in developing a sampling plan, proposing habitat evaluation and water chemistry evaluation which is beyond the scope of the DWR requirement as described in this Permit Condition.

Resolution of the DWR recommendations must be made between SCA and DWR. To date, SCA has shown a lack of diligence in meeting the requirements of this Permit Condition through failure to conduct sampling.

Findings:

Sunnyside Cogeneration is already in noncompliance with this Permit Condition by failing to inventory the fish in the spring. SCA has not come to a conclusive agreement with DWR for conducting the survey and providing a report to the Division of that survey as required by this Permit Condition. Finalized plans, reports and other information required as part of this Permit Condition are due on September 15, 1993. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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 to referenced to R645-301-728.317. This is not an acceptable response.)*

Analysis:

Information was submitted by SCA in response to this Permit Condition on March 5, 1993 which was reviewed by the Division and a second submittal was received from SCA on August 6, 1993. Based on a preliminary analysis of the report, most of the requirements under this Permit Condition will be met. However, it must also be noted that meeting the stipulated requirements under this Permit Condition will not and can not be considered adequate as a mitigation plan or treatment plan for materials as are identified in the information or as meeting the requirements of other Permit Conditions.

Findings:

It appears that the requirements of this Permit Condition will most likely be met in conjunction with the finalized submittal due September 15, 1993. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 7.

R645-301-353.120 (SW) *By July 31, 1993 the permittee must submit a re-evaluated 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.*

Analysis:

Although field work regarding the requirements of this Permit Condition have been conducted by SCA, no submittal of a finalized seed mixture for final reclamation has been submitted to the Division. Submittal of this information is due September 15, 1993.

Findings:

Current information regarding this Permit Condition is not sufficient to indicate whether or not SCA can meet the requirements of this condition. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Submittal of information required by this Permit Condition was extended to September 15, 1993. However, discussion with SCA in regard to the requirements of this Permit Condition indicate that SCA will most likely be able to meet these requirements in the September 15, 1993 submittal.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.)*

Analysis:

Information in response to this Permit Condition was submitted by SCA on June 30, 1993. Supplemental information and revised drawings were also submitted to the Division on August 27, 1993.

Maps and information provided in the John T. Boyd reports should be provided in the operation and reclamation plan only as an appendix to the plan. Any information which is utilized in the report can then be referenced in the operation and reclamation plan. By using the Boyd report as a reference and a source of information, any conflict with information found in the report can be eliminated. Maps and drawings provided in the operation and reclamation plan must be clear and concise and without conflict and independent of information referenced in the appendices.

Much of the problem and conflicts which were a result of this Permit Condition is adequately depicting, labeling and identifying the information in a clear and concise manner. Maps and drawings regarding the disturbed area and other facilities associated with this Permit Condition have shown considerable improvement in comparison to those in the original PAP.

These drawing and maps will most likely require changes in conjunction with addressing other permit conditions and abatement plans for violations at least up until the submittal required on September 15, 1993.

Findings:

Maps and drawing submitted to date have shown considerable improvement. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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 yard 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.)

Analysis:

Information regarding this Permit Condition was submitted on June 30, 1993. SCA has continued to upgrade and update the information in the plan in anticipation of the September 15, 1993 submittal.

Maps and drawing of the existing surface configuration have been updated to more clearly depict current site conditions. Based on the June submittal by SCA, considerable reworking of the waste handling and waste disposal plan must be accomplished.

The re-submittal must not only account for the current location and disposition of waste materials, but must present an operation and reclamation plan which accounts for the temporary and permanent disposal of all waste materials. The existing refuse structure is in fact, the area planned to be mined. Operations in that area will no longer be similar to those which were presented in SCC's plan as a permanent waste disposal facility but as a surface mining operation. Although the existing refuse pile is being surface mined and should be treated as the area to be mined in the plan, portions of that structure will most likely become part of a permanent waste disposal facility.

A detailed design for the permanent disposal facility for waste materials must be presented in the plan which will be designed, constructed and utilized throughout the life of the operation. The reclamation plan must also demonstrate and provide for adequate cover and treatment of the waste materials as well as meet AOC, vegetation, and hydrologic requirements.

Adequate cover materials must be identified in the plan and suitable mass balance calculations must be presented which show that at least four feet of suitable cover material is available for reclamation of the site at any time during the life of the mining operations. Maps and plans must locate the cover material with supporting analysis to demonstrate that the borrow material is suitable as cover material.

The materials handling plan for mining the refuse material, disposal of noncombustible and other waste materials, stockpiling of cover materials, and other materials including soil must be adequately defined in the plan. A suitable flow sheet showing the materials handling plan is strongly suggested. Temporary and permanent storage and disposal areas should be depicted on the drawings and described in the text of the plan which demonstrate adequate capacity throughout all phases of the operation and reclamation.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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 no 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.

Analysis:

Comments regarding the requirements of this Permit Condition have been incorporated into those comments made in the analysis for Permit Condition 10.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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 definitively 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.

Analysis:

Preliminary information was submitted to the Division regarding this Permit Condition on June 30, 1993. Review and discussion of that submittal resulted in extension of the due date to September 15, 1993.

Comments regarding the requirements of this Permit Condition have been incorporated into those comments made in the analysis for Permit Condition 10.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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).

Analysis:

Information regarding this Permit Condition was submitted to the Division on June 30, 1993. Based on review and discussion of that information the due date for meeting the requirements of this Permit Condition have been extended to December 15, 1993.

Findings:

Findings on this Permit Condition will be made following the December 15, 1993 submittal by SCA. Until that time, SCA will be considered in compliance with the requirements of this Permit Condition.

PERMIT CONDITION 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.

Analysis:

Information was initially submitted in regard to this Permit Condition on June 30, 1993. Based on review of that information, the due date for final submittal was extended to September 15, 1993.

The Division believes that based on ongoing discussions with SCA, this information can be consolidated into the September 15, 1993 submittal in a form that could be acceptable.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

On June 30, 1993, Sunnyside Cogeneration Associates submitted a new set of plates for this site in response to this Permit Condition.

A cursory review of this submittal revealed numerous problems with the basic hydrology maps. It should be noted that a complete and thorough review of the entire hydrology section is not feasible at this time due to the numerous problems and inconsistencies between maps, text, and tables. The operator has over time, submitted various portions of the hydrology sections. A thorough technical review of this hydrologic information will not be completed until such time as the information is considered adequate for technical review.

Watershed boundaries for each sediment pond are not very well defined. Examples include the Pasture pond, the Coarse Refuse Toe Pond, the Rail Cut Pond, and the Borrow Area Pond. The quality of the drawings is poor. Contour lines are difficult to distinguish from diversions, roads, etc.

Diversions on the face of the refuse pile are not shown. Diversions are not very well labeled and cross sections are not provided for each one.

The current response to this Permit Condition is inadequate as discussed above. The examples cited above are not a total sum of the problems but are examples of the types of deficiencies that are being encountered during this review. SCA needs to correct these problems prior to resubmittal.

The re-submittal should begin with accurate maps depicting site conditions and watersheds and work through the hydrology permitting process beginning with watershed analysis, runoff calculations, flow calculations, diversion and riprap design and ensure that the ponds are designed to accommodate the volumes of water and sediment. Various descriptions, tables and narratives need to be consistent.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

The permittee will be required to provide any technical information required for the Division to prepare a Biological Assessment. The Biological Assessment (BA) should be prepared by the end of September. After the BA has been completed, the Division will initiate a formal consultation with USFW. Within 90 days of initiating the consultation process, the USFW will issue a Biological Opinion which terminates the consultation process if a determination of no adverse conditions or adverse affects can be made.

Findings:

SCA is considered to be in compliance with the requirement of this Permit Condition. In the event that technical or other information is required or requested by the Division or the USFW, SCA may be required at that time to provide such information in their plan. A more formal finding on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Information in response to this Permit Condition was initially received by the Division on March, 5 1993. A review by the Division dated April 12, 1993 prompted a second response by SCA on April 23, 1993. Information found in the submittal was determined adequate and the Division, conditioned approval based on reformatting the information for incorporation into the PAP. SCA submitted the revised information on June 25, 1993.

The revised information last submitted was found to have additional errors and problems which will not allow the changes to be incorporated into the plan. The substance of these change has been discussed with SCA in a meeting with the Division on September 1, 1993. SCA intends on completing the changes to the information and submitting a finalized version on September 15, 1993.

Findings:

Information regarding this Permit Condition will most likely meet Division approval after the next submittal. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 18.

R645-301-731.300 (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 inclusion 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.

Analysis:

SCA responded on June 11, 1993 to the Division's letter dated April 29, 1993. In the April 29, 1993 Division letter, a request to develop a refuse sample screening plan was made. SCA responded to the Division's request by identifying drill holes which would be resampled to determine the effects of sample storage (at Commercial Testing and Engineering Co. laboratories in Huntington, Utah) upon the physicochemical nature of the refuse samples collected by John T. Boyd in August of 1992.

SCA's plan to fulfill this condition was to analyze the refuse and slurry sample collected by John T. Boyd in 1992. The results of the laboratory analyses were intended to determine the acid and/or toxic forming potential of the refuse and slurry material on site.

The Division was notified in a meeting on August 27, 1993 with SCA that the samples collected in 1992 and stored at the Commercial Testing and Engineering Laboratory in Huntington, Utah have been thrown away. Therefore, the permittee's ability to characterize the refuse and slurry material as proposed up until that date is impossible.

Currently, no refuse and/or slurry data exists which demonstrate the physicochemical character of the waste material. The seep emanating from the base of the Coarse Refuse Pile is producing water that has the potential to adversely impact water quality and is primarily the result of slurry and refuse disposal.

No information currently exists within the PAP which adequately characterizes the amount of or the acid/toxic forming potential of the materials within the existing refuse structure which is planned to be mined. In addition to not having adequate resource information to identify these materials for overburden and waste analysis, no plans to adequately monitor and treat waste materials as they are developed and disposed of throughout mining operations is presented in the plan. Finally, no design information exists within the plan to demonstrate that acid/toxic forming materials or other waste materials will be disposed of in a manner which will minimize the potential effect of these materials on

surface and ground water, that adequate cover and vegetation can be established on these areas in such a manner to maintain stability, and meet approximate original contour requirements.

Findings:

It currently appears that SCA will not be able to adequately address the requirements of this Permit Condition by September 15, 1993. Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

Information regarding this Permit Condition was submitted to the Division on June 30, 1993. Evaluation of the plans and drawings depicting the water monitoring points as required is not considered adequate at this time. SCA intends on resubmittal of this information in conjunction with the September 15, 1993 submittal.

Drawings still do not accurately show the location and elevations of the water monitoring locations. The copies provided are poor photocopies of the USGS topographic map. Contour lines are barely visible. Field personnel could not use these maps to locate these monitoring points in the field during inspections.

Findings:

Findings on this Permit Condition will be made following the September 15, 1993 submittal by SCA.

PERMIT CONDITION 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.*

Analysis:

The due date for this Permit Condition has been revised based on a commitment in the approved plan to submit cost estimate information by December 15, 1993.

Although the requirements of this Permit Condition are not yet due for review and approval, it should be noted that, based on updated or additional information provided in the

plan in regard to addressing other outstanding conditions or requirements, the Division may evaluate and determine whether or not sufficient bond has been provided. Such an evaluation may occur at any time and may be prior to submittal of the information required in the above Permit Condition.

Findings:

Findings on this Permit Condition will be made following the December 15, 1993 submittal by SCA. Until that time, SCA will be considered in compliance with the requirements of this Permit Condition.