

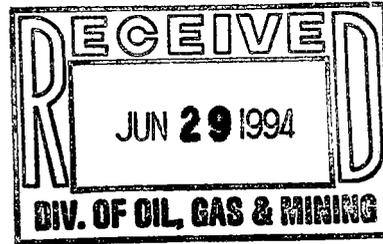
0027

SUNNYSIDE COGENERATION ASSOCIATES

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

June 29, 1994

Mr. Randy Harden
Division of Oil, Gas and Mining
3 Triad Center - Suite 350
Salt Lake City, UT 84180-1203



RE: Response to Division Findings Document dated May 26, 1994
Violation N93-32-5-2 No 1 of 2 Old Coarse Refuse Road
Permit Number ACT/007/035 Project No. EC450593

ACT/007/035 #2
Copy PAM

Dear Randy,

SCA has reviewed the Division findings dated May 26, 1994, for Violation N93-32-5-2 No 1 of 2

Failure to place, in a controlled manner, and/or treat acid-forming material. Failure to place coal mine waste in an approved disposal facility. (The Old Coarse Refuse Road).

The permittee maintains the ultimate responsibility for re-vegetation success and therefore retains the right to conduct reclamation in the most efficient manner possible within the specified regulations. In order to improve efficiency it would be prudent for the Division to allow the operator and his contractor leeway to determine minor construction methods and techniques and only regulate desired outcomes. The permit amendments should be approved as long as the plan follows the appropriate regulations.

This submittal includes a response to each of the FINDINGS of deficiency. The following plates and appendices are also submitted:

- Plate 7-1B, 7-6: Show 18" cmp to be installed
- Plate 10-1: Show revised Atriplex/Grass seeding schedule
- Plate 10-2A, 10-2C: General revisions to the Old Coarse Refuse Road Plans
- Appendix 7-3 Old Coarse Refuse Road Pond Hydrology
- Appendix 5-7 Add Old Coarse Refuse Road Fill Slope Stability

SOILS ANALYSIS

1. *The permittee must identify which borrow area will be the source of the substitute topsoil material. The permittee must also qualify the volume of borrow material to be utilized and describe what interim reclamation measures will be employed on the borrow area. (See R645-301-233. Topsoil Substitutes and Supplements).*

Several borrow areas within the SCA permit area have already been approved for use as reclamation cover according to R645-301-233. Regulations do not require that a distinction be made between different approved borrow areas. The operator must retain the right to select a particular approved borrow area unless the Division can demonstrate valid reasons for restricting its use.

Current intentions are that approximately 9,000 cubic yards of borrow material will come from the Industrial Borrow Area # 3 located northeast of the Borrow Area Sediment Pond. The slopes from the excavated area will be left no steeper than 3H:1V, the area will be graded to insure adequate drainage and all runoff from the borrow area will report to the Borrow Area Sediment Pond. Since this area will be used for any potential reclamation needs in the near future, no seeding will take place in the excavated area.

- 2. The proposed reclamation design for the Old Coarse Refuse Haul Road calls for an unspecified depth of topsoil on disturbed areas which have had the road refuse material removed. The permit must reinstate the commitment to covering all disturbed areas not influenced by refuse or precipitate with 1.5 feet of suitable topsoil material. The permittee must commit to scarifying all disturbed areas to the most prudent depth possible. (See R645-301-242. Soil Redistribution).*

The purpose of treating or scarifying the regraded land prior to distributing borrow material is to reduce the potential slippage of the distributed material and to promote root penetration, but no depth is specified by the regulations (see R645-301-242.200). The acid-forming materials will be cleaned from the outer slopes of the Old Coarse Refuse Road and the slopes will be scarified to a depth of six inches as shown in the April 25, 1994 submittal. Any necessary change to the depth of scarification in order to reach a more prudent depth greater than six inches will be determined by the permittee at the time of excavation.

The regulations do not require that all disturbed areas not influenced by refuse or precipitate be covered with 1.5 feet of topsoil material. The acid-forming material will be removed from the outer slopes and no specific depth of borrow material cover is required by the regulations. The permittee has chosen to increase the revegetative qualities of the natural material by allowing a thin layer of borrow material to sluff down the outer slopes. Adding a deep layer of borrow material to the steep outer slope may create a slip plane at the interface between the mancos and the borrow material. This could increase the chance for mass sliding of the borrow material. These concepts were discussed at length in a meeting with the Division held on April 25, 1994.

- 3. The fertilizer recommendation is excessive and must be revised. The permittee must seriously consider incorporation of organic material (i.e. green manure, alfalfa mulch, biosolids) into the soil surface. (See R645-301-243. Soil Nutrients and Amendments).*

The permittee will incorporate an organic mulch into the top foot of borrow material cover during application and spreading.

After consulting with several specialists in the field of revegetation, the operator will apply fertilizer as follows: Water soluble granules at a ratio of 16 elemental nitrogen, 16 phosphorus, and 8 potassium at a rate of 200 lbs per acre, with a minimum of 50 percent of the nitrogen in a slow release form. This is similar to the rate recently applied on the coarse refuse lifts.

4. *The permittee's reclamation design for refuse material within the Old Coarse Refuse Haul Road must include the excavation, disposal and adequate covering of the precipitate layer which exists at the refuse/mancos interface. (See R645-301-553.300 & 731.300).*

The acid-forming materials from the precipitate layer, where encountered, will be adequately excavated, disposed, covered and/or treated in the same manner as the coal related acid-forming material. This will control the impact on surface and ground water, prevent sustained combustion, and minimize adverse effects on plant growth and the approved post-mining land use.

BIOLOGICAL ANALYSIS

1. *The phrase "as determined necessary" must be deleted from page 900-18 in regards to netting.*

Erosion control netting is not specifically required as the only acceptable method of slope stabilization. R645.301.244 asks that suitable mulch and other soil stabilizing practices will be used. The regulations do not state that erosion control netting is required unless the operator can demonstrate that it is not necessary. There are many different types of soil stabilizing methods currently available and others being developed and tested. Erosion control netting may be the best technology available for some cases, but not all cases. For this reason, it is necessary to determine on a case-by-case basis if erosion control netting or some other practice is best for increasing re-vegetation sufficient to meet the post-mining land use.

2. *The plan must commit to netting all slopes 2:1 or steeper or demonstrate that it is not necessary.*

The method of applying significant quantities of mulch and tackifier instead of installing erosion control netting was discussed at length during a meeting with the Division on April 25, 1994. At the Division's request, increased erosion control measures will be implemented on slopes steeper than 2H:1V, as well as in major natural drainages. Options such as netting, polyjute mesh, blankets, fiber roving, etc. are currently being considered for cost effectiveness.

Rills and gullies, which form in areas that have been regraded and covered with borrow material, will be filled, regraded, or otherwise stabilized; borrow material will be placed; and the areas will be reseeded if they disrupt the approved post mining land use or the establishment of the vegetative cover, or cause or contribute to a violation of water quality standards for receiving streams (see R645-301-244.300). Erosion control fencing will be installed and maintained as submitted in January, 1994 to control the contribution of sediment to receiving streams.

3. *Rabbitbrush must be eliminated from the Atriplex/Grass seed mixture and Gardner saltbush and Slender wheatgrass added.*

Plate 10-1, which contains the Atriplex/Grass seed mixture, was last submitted on September 15, 1994. The planned seed mixture (submitted on April 25, 1994) for the Final Reclamation of the Old Coarse Refuse Road did not vary from that mixture. Based on the Division's recommendation, SCA is submitting with this package a revised Plate 10-1 showing the seed mixture which eliminates Rabbitbrush and adds Gardner saltbush and Slender wheatgrass.

4. *The commitment to leave the soil surface in a roughened condition must be further defined. The dimensions of the roughness and techniques to obtain the roughness must be defined.*

Throughout the regulations many suggestions are made encouraging the use of "small depressions" to retain moisture or minimize erosion, create and enhance wildlife habitat or assist re-vegetation. For this reason the April submittal indicates that the permittee will spread the borrow material unevenly to create "small depressions which will retain moisture, minimize erosion, and assist re-vegetation."

Current intentions are that many of the small depressions shall be approximately 15-20 cubic feet (typically no deeper than one foot). However, the permittee does not expect that the Division should dictate the required size of a small depression when the regulations specifically avoid defining it. The small depressions will be formed naturally through the process of excavating the acid-forming material, and end dumping and rough grading of the borrow material.

5. *A commitment must be made that the last pass by equipment on slopes less than 2:1 will be made on the contour.*

SCA will ensure that the last pass by equipment on slopes less than 2:1 will not be made perpendicular to the contour.

6. *A contingency plan for stabilizing areas which are not seeded within the seeding window must be described.*

SCA has every intention of completing the project in time to complete seeding within the approved seeding window. If delays cause that the seeding cannot be completed within the Fall seeding window, the area will be seeded in the following Spring similar to what was accomplished this past Spring for seeding of the Coarse Refuse Lifts.

ENGINEERING ANALYSIS

- 1 *The permittee must provide an adequate analysis of the stability and adequacy of the proposed fill.*

Based on the analysis which is added to Chapter 10 text with this submittal, the fill will have adequate stability with a safety factor of at least 1.3 if the outer slopes of the fill are not steeper than one horizontal to one vertical.

Current intentions are for the acid-forming materials to be placed and compacted to a maximum 15 ft. height, with an outer slope no steeper than 2H:1V. The borrow material will follow a similar slope by covering with a uniform thickness. All attempts will be made to achieve the approximate original contour by matching into the upper and lower sides of the road cut as nearly as is possible within the constraints of a safe slope.

HYDROLOGY ANALYSIS

1. *The statement regarding excessive erosion and appropriate remediation must be clarified.*

A paragraph was added to Chapter Nine Section 9.11 in the June 3, 1994 submittal to clarify the statement concerning excessive erosion and appropriate remediation. This addition was reviewed and approved by the Division in a letter dated June 3, 1994. The portion of Appendix 7-3 which addresses channel erosion is amended to reference the Section 9.11.

On page four of the section of Appendix 7-3 which applies to the Old Coarse Refuse Road Sediment Pond, the table Diversion Design Criteria has been amended to show the minimum Manning's n value as 0.03 to correct a typographical error in the April 25 submittal. No change in the design of ditches is required.

Culvert OCRR-C2 has been added to the design of ditch OCRR-D4 as shown on Plate 7-1B. The table Culvert Design Criteria now includes this culvert.

SCHEDULING

The contractor selected for this project has indicated that it will be most cost effective to accomplish the excavation of acid-forming materials and covering with borrow material in 400-600 foot sections along the road. He has been given 90 days to reach substantial completion. This should allow him to complete the earthwork phase of reclamation by the beginning of the seeding window (October 1).

If you have any questions, please feel free to call.

Sincerely,

AEB for

David Pearce

Authorized Member, Management Committee

Alane E. Boyd

Alane E. Boyd, P.E.

Senior Engineer

Enclosure

cc: Brian Burnett, CDN
Bill Malencik, DOGM

APPLICATION FOR PERMIT CHANGE

Title of Change: SUNNYSIDE COGENERATION ASSOCIATES Final Reclamation of The Old Coarse Refuse Road	Permit Number: ACT/007/035
	Mine: Sunnyside Cogen. Assoc.
	Permittee: Sunnyside Cogen. Assoc.

Description - include reason for change and timing required to implement: **DOGM findings document dated May 26, 1994 for NOV N93-32-5-2 No 1 of 2; Expected to be completed by end of the seeding window 1994**

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Change in the size of the Disturbed Area? _____ 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 type="checkbox"/> Yes	<input checked="" 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 # 93-32-5-2 No 1 of 2
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Permit change as a result of a Division Order? D.O. #
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Permit change as a result of other laws or regulations? Explain:
<input type="checkbox"/> Yes	<input checked="" 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 type="checkbox"/> Yes	<input checked="" 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? N/A

Attached **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 aspects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Alane E. Boyd, P.E. 6/29/94
 Signed - Name - Position - Date

Subscribed and sworn to before me this *29th* day of *June* 1994

[Signature]
 Notary Public

My Commission Expires: _____

Attest: STATE OF _____ COUNTY OF _____

NOTARY PUBLIC
MARILYN YOUNG
 1721 E. 3900 So. #C-100
 Salt Lake City, Utah 84124
 My Commission Expires
 March 8, 1997) ss:
STATE OF UTAH

RECEIVED

JUN 29 1994

DIV. OF OIL, GAS & MINING

ASSIGNED PERMIT CHANGE NUMBER

