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SUNNYSIDE COGENERATION ASSOCIATES

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August 19, 1993

Ms. Pamela Grubaugh-Littig  
Division of Oil, Gas and Mining  
3 Triad Center - Suite 350  
Salt Lake City, UT 84180-1203

RECEIVED

AUG 19 1993

DIVISION OF  
OIL, GAS & MINING

*Temp. Canal  
Refusal  
Storage*

*File ACT/007/035 #2  
Copy Pam*

Dear Pam,

As requested by DOGM on August 11, 1993, enclosed are calculations for the diversions and culverts for the two refuse storage areas. The calculations are based on the 100 yr 6 hr event. The riprap size has also been determined based on these calculations. It should be noted that the Pasture Pond drainage area has not been updated from what is shown on Plate 7-1 of the June 30, 1993 submittal. The drainage area shown on Plate 7- 1 (June 30 submittal) accurately represents the area that will potentially drain to the Pasture Pond. The total acreage of the site has been updated and used for the purposes of determining the required design capacity of the culverts and diversions. The calculations for the Pasture Pond that were submitted on June 17, 1993 with the latest Storage Area Amendment are based on a total drainage area of 13.5 acres, whereas the actual drainage area is 15.4 acres. Calculations have been revised to reflect this change to ensure the Pasture Pond is adequate to handle the 10 yr 24 hr event and safely discharge a 25 yr 6 hr event. The revised calculations are contained with this submittal.

The diversions within the Pasture Pond drainage area have been updated on Plate 7-6. Two copies of the revised Plate 7-6 are enclosed. Revisions to Plate 7-6 include: cross sections of the diversions for the refuse pads, the ditch draining area 3 into the east slurry cell, and the diversion draining area 2 along the south side of the Lower (New) Haul road. The diversions and culverts are labeled on Figure 1.

A design summary report outlining the assumptions and methods is enclosed for your reference. Included with the report are design summary tables showing the longest channel, slope, curve number, and other information relevant to the enclosed calculations. We have utilized the examples supplied by DOGM for the table formats.

A summary of the items included with this submittal are as follows:

- 1) Design calculations for the 100 yr 6 hr event to size the culverts and diversions for the Storage Areas.
- 2) Design calculations for the 10 yr 24 hr and 25 yr 6 hr event to determine the adequacy of the Pasture Pond to handle these two events as specified in the regulations.

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- 3) Revised Plate 7-6 with cross sections of the refuse pad diversions, ditch draining area 3 into the east slurry cell, and the diversion draining area 2 along the south side of the Lower (New) Haul Road.
- 4) Figure 1 - Drawing labeling each sub-watershed, diversion, and culvert as they correspond to the enclosed calculations for Storage Areas 1 and 2.
- 5) A summary of design parameters and assumptions made for the purpose of sizing the diversions and culverts.
- 6) Tables outlining the design parameters and assumptions used to size the above mentioned items.
- 7) Revised Plate 9-2 showing a typical cross section for Storage Area 1.

If there are any questions, please feel free to call. We look forward to hearing from you.

Sincerely,



for David R. Pearce  
Authorized Member, Management Committee



for Alane E. Boyd, P.E.  
Senior Engineer

Enclosure

cc: Brian Burnett, CDN

AEB:jws

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