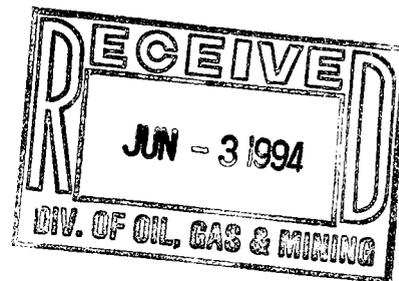


0032

SUNNYSIDE COGENERATION ASSOCIATES

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

June 3, 1994  
AEB  
December 13, 1993



Mr. Jim Carter, Director  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt lake City, Utah 84180-1203

RE: Sunnyside Cogeneration Associates (SCA) Permit No. ACT/007/035  
Project Number EC450593  
Conditional Approval of Addition of Crusher Facility

File ACT/007/035  
#2

Dear Jim,

This letter is written in regards to the response letter from DOGM dated June 1, 1994 regarding the Conditional Approval of the Addition of the Crusher Facility at the Sunnyside Cogeneration Associates Facilities.

1. *Monitoring of the piezometers must be continued, unless there is adequate justification to discontinue. The narrative must be corrected to describe the piezometer monitoring at this site. Table 5 must be corrected.*

The piezometer monitoring has never been discontinued. The line that was struck from the text stated that "There are some piezometer tubes near some of the impoundments." The piezometers are located near the East Slurry Cell and continue to be monitored weekly. There are no piezometers near the Crusher Facility Area.

SCA felt that this line was ambiguous and should not be included in section 748. Well Casing and Sealing. However, we have added the sentence back into the PAP (Page 700-21).

Table 5 in Appendix 7-3 has been changed to reflect 0.5 feet of freeboard in the diversions. Additionally, the Ditch No. names have been changed to be consistent with Plate 7-1 and 7-1A.

2. *Diversion designs must be changed to include adequate freeboard A discussion as to how these diversions will be monitored for erosion and what constitutes appropriate remediation must be included in the amendment.*

The text and calculations in Appendix 7-3 as well as Table 5 in Appendix 7-3 has been changed to reflect 0.5 feet of freeboard in the diversions. These changes satisfy the condition; however, SCA is not required to design diversions with any freeboard. The diversions were adequately sized to accommodate the 10-year, 6-hour design storm which is required in the regulations.

A discussion of monitoring and maintenance of the diversions has been added to Section 9.11.3 Monitoring and Maintenance, Erosion (Page 900-24). Additionally, Appendix 7-3 has been changed to reference the information in Chapter 9.

Mr. Jim Carter, Director  
June 3, 1994  
Page Two

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3. *Slope for the six-inch CMP primary spillway must be shown on cross-section Plate 7-18.*

The 3% slope has been added to the plate and resubmitted.

4. *The reclamation cost estimate for this area must be included.*

The reclamation cost estimate for the new crusher facility has been prepared and is submitted as Figure 8-1A, Crusher Facility Bond Estimate. The total estimated cost for reclamation for the entire SCA Permit Area, including monitoring and maintenance, is approximately \$1,418,116 and is shown in Figure 8-1B. Figure 8-2A has also been added to detail the Salvage Value of the Waste Coal Processing Equipment.

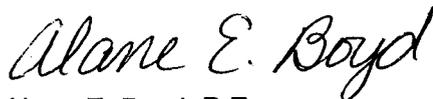
The existing surety bond (Surety Bond No. 51123-A issued by Frontier Insurance Company) in the amount of \$1,500,000 is sufficient to cover the entire SCA Permit Area including the crusher facility area.

5. *A narrative of the facilities must be included in the amendment.*

A narrative of the facilities for the crusher facility area has been included in the PAP since December 1993 as pages 400-6 through 400-9. In December, 1993 the crusher facility area was considered adjacent facilities and a detailed description was included. The text for the amendment was only amended to indicate that the facilities were **included in** the SCA Permit Area and not **adjacent to** the SCA Permit Area. Please refer to pages 400-6 through 400-9 for the necessary descriptions.

We look forward to a rapid review and approval of this submittal. If you have any questions, please call me.

Sincerely,



Alane E. Boyd, P.E.  
Senior Engineer

cc: Brian Burnett, CDN  
Jim Carter, DOGM  
David Pearce, SCA  
Joe Helfrich, DOGM  
Pam Grubaugh-Littig, DOGM

## APPLICATION FOR PERMIT CHANGE

Title of Change: **SUNNYSIDE COGENERATION ASSOCIATES**  
 Addition of Crushing Facilities to Permit Area

Permit Number: **ACT/007/035**

Mine: **Sunnyside Cogen. Assoc.**

Permittee: **Sunnyside Cogen. Assoc.**

Description - include reason for change and timing required to implement: **Details to supplement the permit changes submitted May 16, 1994. and May 20, 1994. DOGM conditional approval of addition of crusher facility dated June 1, 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 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 type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 7. Permit change as a result of a Violation? Violation # _____  |
| <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 type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 14. Does permit change require or include soil removal, storage or placement?   |
| <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 15. Does permit change require or include vegetation monitoring, removal or revegetation activities?  |
| <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 16. Does permit change require or include construction, modification, or removal of surface facilities?   |
| <input type="checkbox"/> Yes            | <input checked="" 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 checked="" type="checkbox"/> Yes | <input 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? <b>N/A</b> |

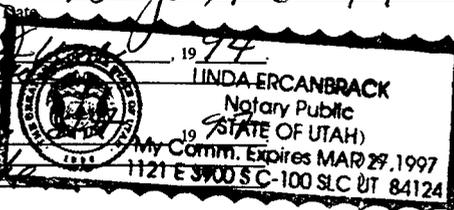
Attached **3** complete copies of proposed permit change as it would be incorporated into the Mining and Reclamation Plan.

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.

*Walter E. Boyd, P.E.* 6/3/94  
 Signed - Name - Position - Date

Subscribed and sworn to before me this 3rd day of June, 1994.

*Linda Ercanbrack*  
 Notary Public



My Commission Expires:  
 Attest: STATE OF  
 COUNTY OF

Received by Oil, Gas & Mining

ASSIGNED PERMIT CHANGE NUMBER

## Application for Permit Change Detailed Schedule of Changes to the Permit

Title of Change: <b>SUNNYSIDE COGENERATION ASSOCIATES</b> Addition of Crushing Facilities to the Permit Area	Permit Number: <b>ACT/007/035</b>
	Mine: <b>Sunnyside Cogen. Assoc.</b>
	Permittee: <b>Sunnyside Cogen. Assoc.</b>

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 7 Text page 700-21
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7, Appendix 7-3 Text for Coal Pile Sediment Pond
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8 Table of Contents and Text page 800-1
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Figure 8-1A
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Figure 8-1B
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 8, Figure 8-2A
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 9 Text page 900-24
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 7-18 Coal Pile Runoff Sediment Pond and Cross Sections
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
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<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	

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

All surface drainage from the areas above the slurry ponds is diverted away from the embankments by diversion ditches designed to carry the peak runoff from 100-year, ~~6~~24-hour precipitation event. The diversion structures will be maintained to prevent blockage.

Visual inspections by a qualified registered professional engineer or a qualified MSHA impoundment inspector will be conducted according to 30 CFR 77.216-3 to assess the stability of the impoundments and determine the amount of seepage, if any. If the inspection discloses that potential hazards exist, DOGM will be informed promptly of the findings, emergency procedures formulated for public protection, and remedial action measures will be implemented.

Maintenance of the embankments will consist of filling and grading any erosion or other failure features discovered by the above inspections.

Subsidence will not affect the pond and embankments since the structures do not overlie the coal seam and are located several miles west of the nearest outcrop. Mudflows, rock debris falls or other landslides are not expected to be a problem because the embankments are located at or above the level of the surrounding topography. Possibility of failure downhill of the embankments is limited to a thin layer of colluvial material on bedrock. Failure of this material would not threaten the embankments.

#### **Coarse Refuse Pile**

The outer slope of the refuse pile is maintained at a 27° slope. At 50-foot vertical increments, a 20-foot wide terrace is constructed for water runoff and erosion control. Construction of the refuse pile was started before the 1977 enactment of the current regulations. As a result, the sub-drainage system required by current regulations was not incorporated in the design; however, a 24-inch perforated culvert was placed in the drainage bottom to collect groundwater seepage.

All surface water drainage from the area above the waste bank and from the crest and face of the final structure will be diverted away from the fill into stabilized diversion channels designed to pass safely the runoff from a 100-year, ~~6~~24-hour precipitation event. A plan view of the diversion ditches is found in Plate 7-6.

#### **747 DISPOSAL OF NON-COAL MINE WASTE**

See Chapter Nine, Sections 9.6 and 9.7.

#### **748 WELL CASING AND SEALING**

Groundwater monitoring wells that may be utilized within the SCA Permit Area will be drilled and installed by a driller licensed in the State of Utah. Procedures and materials used to drill and install the groundwater monitoring wells will be in accordance with the State of Utah Administrative Rules and Water Well Drillers (July 15, 1987) Appendix I, Monitor Well Installation Guidelines. Abandonment and sealing of groundwater monitoring wells will also be in accordance with Rule 12 of the Utah rules. Currently there are no groundwater monitoring or supply wells in the SCA Permit Area. There are some piezometer tubes near some of the impoundments.

## TIME OF CONCENTRATION

Each subwatershed requires a certain time for the water to reach the outlet following the longest path. The runoff is approximated by the Sedimot-II Disturbed unit hydrograph for areas with poor vegetative cover. The overland flow velocity was estimated using the Soil Conservation Service Upland Curves (SCS 1972) corresponding to the slope and vegetation of the drainage areas. Time of concentration was calculated by dividing the average velocity into the distance to the subwatershed outlet.

**TABLE TWO. WATERSHED CHARACTERISTICS**

Drainage Area	SCS Hydro Class	Curve Number	Area acres	Distance to outlet (ft)	Overland Velocity (ft/s)	Time of Concentration
CPSP-sws1	B	85	2.0	350	1.1	0.09 hrs
CPSP-sws2	B	90	0.3	100	1.2	0.02 hrs

## RIPRAP SIZING

Riprap is placed at culvert outlets where needed to prevent erosion. The size of the stones is based on the expected maximum velocity of water flowing out of the culvert. When velocities in the smooth channel are expected to reach 5 ft/s riprap is required. Figure Three is used to determine the median stone diameter ( $D_{50}$ ). The riprap mixture should approximate the following gradation:

**TABLE THREE. RIPRAP GRADATION**

Stone Size	$2 \cdot D_{50}$	$D_{50}$	$0.5 \cdot D_{50}$	$0.2 \cdot D_{50}$
% Finer	100	50	20	0

In areas where the increased roughness from riprap does not reduce the velocity below 5 ft/s, a filter blanket (or gravel bedding in a layer 1.5 times as thick as the largest stone diameter) will be used. All diversion channels will be monitored. If excessive erosion occurs, appropriate remediation is required as specified in Chapter 9 Section 9.11 Monitoring and Maintenance.

**TABLE FOUR. STORM RUNOFF VOLUMES AND PEAK FLOWS**

Diversion	10yr 6hr Storm	10yr 24hr Storm	25yr 6hr Storm	Maximum Allowable Sediment Elevation	10yr 24hr Storm Peak Discharge Settleable Solids (ml/l)	10yr 24hr Detention Time (hrs)
Runoff (acft)	0.07	0.14	0.11	6477.5	0.00	17.5
Sediment (tons)	0.8	1.4	1.3			
Water Surface	6477.8	6478.0	6477.9			
CPSP-D1	1.2	1.5	1.8			
CPSP-D2	0	0	0			

## DIVERSION DESIGN

Diversions are designed to safely carry the 10 year, 6 hour design storm, as required for diversions of miscellaneous flows (R645-301-742.333). The diversions are designed to fit within a range of expected field values. Design summaries are given in Table Five.

The minimum design channel depth is calculated by using a minimum channel slope, and a maximum expected Mannings N then adding a freeboard of 0.5 feet. The maximum velocity expected in the channel is calculated by using minimum Mannings N values and maximum channel slopes. While the slopes and N values are expected to be near the middle of the range provided, these values provide the maximum variance accepted without additional riprap lining through the channel. The cross sections may vary but must always be sufficient to provide the maximum required flow area.

**TABLE FIVE. DIVERSION DESIGN CRITERIA**

Ditch No.	Manning N		Side Slope minH / 1V	Min. Bottom Width (ft)	Design Flow (cfs)	Channel Slope (%)		Flow Depth (ft)		Flow Area (ft <sup>2</sup> )		Maximum Velocity (ft/s)	Minimum Channel depth (ft)	Comments
	Min	Max				Min	Max	Min	Max	Min	Max			
CSF 11	0.03	0.05	2	0	2	1	6	0.48	0.8	0.46	1.3	4.4	///	no lining required
CSF 17	0.03	0.05	2	0	2	1	6	0.48	0.8	0.46	1.3	4.4	///	no lining required

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**CHAPTER EIGHT**  
**R645-301-800 (BONDING AND INSURANCE)**

**R645-301-800 BONDING AND INSURANCE**

R645-301-820 Requirement to File Bond . . . . .	800-1
R645-301-830 Determination of Bond Amount . . . . .	800-1
R645-301-890 Terms and Conditions for Liability Insurance . . . . .	800-1

**LIST OF FIGURES**

- Figure 8-1, Proposal for Bond Amount
- Figure 8-2, Bond Estimate Information
- Figure 8-3, Certificate of Public Liability Insurance

**\*LIST OF TABLES**

- Table 8-1, Impoundment/Pond Removal, Rough Grading Quantities
- Table 8-2, Culvert Removal
- Table 8-3, Mobilization Costs

**APPENDICES**

- Appendix 8-1, Bond Estimate Verification

**PLATES**

- Plate 8-2, Phasing Plans
- Plate 8-3, Phases 1 & 2 Drainage & Diversion Plans
- Plate 8-4, Phases 1 & 2 Borrow Material Plan
- Plate 8-5, Phases 1 & 2 Seeding Plan
- Plate 8-6, Phases 1 & 2 Rough Grading Plan

\* All tables are included in Appendix 8-1, Bond Estimate Verification.

## **CHAPTER EIGHT 800 BONDING AND INSURANCE**

### **820 REQUIREMENT TO FILE BOND**

After this Permit Application is approved, SCA will file with the Division of Oil, Gas and Mining (DOGGM), a bond or bonds for performance made payable to DOGGM and conditioned upon the faithful performance of all the requirements of the State Program, the permit and the reclamation plan.

Once reclamation operations have begun, all areas will be protected from further surface disturbance prior to the acceptance by the DOGGM. Chapter 9 and Chapter 10 outline full details of the reclamation activities and describe how each area within the SCA Permit Area will be reclaimed.

### **830 DETERMINATION OF BOND AMOUNT**

SCA proposes that the amount of the bond be determined as set forth in Figure 8-1 herein. Costs shown in Figure 8-1 ~~through Figure 8-1B~~ are substantiated on Figure 8-2 ~~through 8-2A~~ and on Tables 8-1 through 8-3, and on Plates 8-4 and 8-5. Costs were determined using 1993 Means Site Work and Landscape Cost Data.

The Contemporaneous Reclamation Plan is included in Chapter 9 and the Final Reclamation Plan is included in Chapter 10. Activities mentioned in the reclamation plans have been estimated and included in the total bond amount. Acreages used for the purposes of the bond estimate were determined from Plates 8-4 and 8-5. Plate 8-4 shows the boundary of each area and corresponding quantity of disturbed acreage. There is a total of 216.41 acres that will require reclamation.

Costs may be adjusted as conditions of the SCA Permit Area are altered. The SCA Permit Area will be undergoing constant changes as contemporaneous reclamation proceeds. As a result, DOGGM has the discretion to alter the bond amount to reflect current conditions of the SCA Permit Area.

### **890 TERMS AND CONDITIONS FOR LIABILITY INSURANCE**

#### **Certificate**

Figure 8-3 is the required proof of insurance certificate. It was issued by an insurance company, authorized to do business in Utah, certifying that Applicant has a public liability insurance policy in force for the coal mining and reclamation activities for which the permit is sought.

#### **Rider**

The policy includes a rider requiring that the insurer notify DOGGM whenever substantive changes are made in the policy including any termination or failure to renew.

FIGURE 8-1A

SUNNYSIDE COGENERATION ASSOCIATES  
 PROPOSAL FOR ADDITIONAL BOND AMOUNT  
 CRUSHER FACILITY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
<b>DEMOLITION - INCLUDING DISPOSAL</b>					
1	MOTOR CONTROL STRUCTURE CONCRETE FLOOR SLAB SLAB ON GRADE REMOVAL, MESH REINFORCING	5	C.Y.	\$96.00	\$480
2	TOOL STORAGE CONCRETE FLOOR SLAB SLAB ON GRADE REMOVAL, MESH REINFORCING	28	C.Y.	\$96.00	\$2,688
3	TRUCK DUMP - CONCRETE WALLS, SOLID	400	C.F.	\$1.76	\$704
4	HAUL MATERIAL & DUMP AT APPROVED 20 MILES ROUND TRIP 20 C.Y. DUMP TRAILER, 0.6 LOADS PER HOUR	40	C,Y,	\$8.00	\$320
<b>DISASSEMBLY FEE</b>					
5	DISASSEMBLE PRIMARY CRUSHER, SECO CRUSHER, SCREENING PLANT, CONVEYOR SYSTEM TRAMP MAGNET, BELT SCALE, MOTOR CONTROL CENTER, LOT STRUCTURAL STEEL	1	EA.	\$75,000.00	\$75,000
<b>REGRADING DISTURBED AREAS</b>					
6	REGRADING - LOAD & SPREAD BORROW MATERIAL (1.5 FEET)	4,840	CY	\$1.06	\$5,130
<b>REVEGETATION</b>					
7	HYDROSEED INCL. MULCH, FERTILIZER, & SEED (W/ EQUIP.)	2.00	AC	\$1,380	\$2,760
<b>POND RECLAMATION AND CULVERT REMOVAL</b>					
8	IMPOUNDMENT/POND REMOVAL	250	CY	\$0.54	\$135
<b>INDIRECT COSTS</b>					
9	MAINTENANCE AND MONITORING (7%)		LUMP	\$6,100	\$6,100
<b>SUBTOTAL RECLAMATION CONSTRUCTION COSTS (1994)</b>					<b>\$87,217</b>
<b>SUBTOTAL CONSTRUCTION COSTS (1998)</b>					<b>\$95,150</b>
CONTINUED ON NEXT PAGE					

**FIGURE 8-1A (CONTINUED)**

**SUNNYSIDE COGENERATION ASSOCIATES  
PROPOSAL FOR ADDITIONAL BOND AMOUNT  
CRUSHER FACILITY**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
------	-------------	----------	------	------------	--------

**SALVAGE VALUES (1998)**

10	PRIMARY CRUSHER	1	EA	(\$12,500.00)	(\$12,500)
11	SECONDARY CRUSHER	1	EA	(\$33,000.00)	(\$33,000)
12	SCREENING PLANT	1	EA	(\$15,000.00)	(\$15,000)
13	CONVEYOR SYSTEM	440	L.F.	(\$70.00)	(\$30,800)
14	TRAMP MAGNET	1	EA	(\$3,750.00)	(\$3,750)
15	BELT SCALE	1	EA	(\$2,000.00)	(\$2,000)
16	MOTOR CONTROL CENTER	1	EA	(\$5,000.00)	(\$5,000)
17	LOT STRUCTURAL STEEL	70	TONS	(\$100.00)	(\$7,000)

**TOTAL SALVAGE VALUE**

(\$109,050)

<b>TOTAL CRUSHER FACILITY RECLAMATION COSTS (1998)</b>					<b>(\$13,900)</b>
--	--	--	--	--	-------------------

The total bond amount was escalated at the Means 1993 suggested inflation rate of 2.20% per year.

NOTE: All costs have been adjusted to represent average costs for Utah. Unit costs have been verified by 1993 Means Site Work & La

\*Topsoil and borrow material to be used is available on the site. No topsoil or borrow material will be purchased for the purposes of  
6/3/94

EWP Engineering

**FIGURE 8-1B**

**SUNNYSIDE COGENERATION ASSOCIATES  
TOTAL BOND**

ITEM	DESCRIPTION	AMOUNT
1	TABLE 8-1 (PREVIOUS 1998 BOND ESTIMATE)	\$1,432,016
2	TABLE 8-1 A (CRUSHER FACILITY 1998 BOND ESTIMATE)	(\$13,900)
<b>TOTAL BOND AMOUNT (1998 DOLLARS)</b>		<b>\$1,418,116</b>

FIGURE 8-2A

ESTIMATED 1998 SALVAGE VALUE  
FOR  
WASTE COAL PROCESSING EQUIPMENT  
AT  
SUNNYSIDE COGENERATION PROJECT

DESCRIPTION	UNIT	UNIT PRICE	EXTENDED
1 PRIMARY CRUSHER	EACH	\$12,500.00	\$12,500.00
1 SECONDARY CRUSHER	EACH	\$33,000.00	\$33,000.00
1 SCREENING PLANT	EACH	\$15,000.00	\$15,000.00
1 CONVEYOR SYSTEM	440 FT	\$ 70.00/FT	\$30,800.00
1 TRAMP MAGNET	EACH	\$ 3,750.00	\$ 3,750.00
1 BELT SCALE	EACH	\$ 2,000.00	\$ 2,000.00
1 MOTOR CONTROL CENTER	EACH	\$ 5,000.00	\$ 5,000.00
1 LOT STRUCTURAL STEEL	70 TONS	\$100.00/TON	\$ 7,000.00
TOTAL			\$109,050.00
1 DISASSEMBLY FEE			\$75,000.00

SALVAGE VALUES WERE ESTIMATED AS FOLLOWS:

Equipment to be four years old in 1998 estimated at 30% of new value.

Equipment to be five years old in 1998 estimated at 25% of new value.

The diversions within the Permit Area will be inspected periodically and after large storm events for signs of erosion and other irregularities which may impede flow. If necessary, maintenance will be provided which may include excavating or shaping the diversion to line, grade and cross section as required to meet the design criteria specified in Chapter 7, Hydrology

#### **9.11.4 TEMPORARY STORAGE AREAS**

Maintenance of the three temporary storage areas will consist of providing general maintenance and inspections of the surrounding structures, drainages, culverts, and roads.

Water or other dust control measures will be applied as necessary to reduce dust. General road maintenance procedures will be practiced and inspections will be done as necessary. Inspections will consist of: erosion control, repair of structures and drainage systems, removal of debris in culverts and replacement of road surfacing material as needed.

#### **9.11.5 REPORTING AND EMERGENCY PROCEDURES**

If a slide occurs, Intermountain Power Agency will telephone DOGM to notify them of the situation and recommend remedial measures to be taken to alleviate the problem. Additional remedial measures required by DOGM will be implemented.

During impoundment inspections any potential hazards noted will be reported to DOGM along with measures to be implemented to eliminate the hazard.

### **9.12 SCHEDULE**

The different work items described in this chapter will be accomplished continually over the 30 year life of the cogeneration project.

The approximate reclamation sequencing schedule is shown in Plate 9-3. Each year as sites of two acres or larger are permanently excavated of waste they will be reclaimed. SCA will notify DOGM of the areas that will be reclaimed and will commence implementation of the various portions of the reclamation plans as indicated in Figure 10-1.