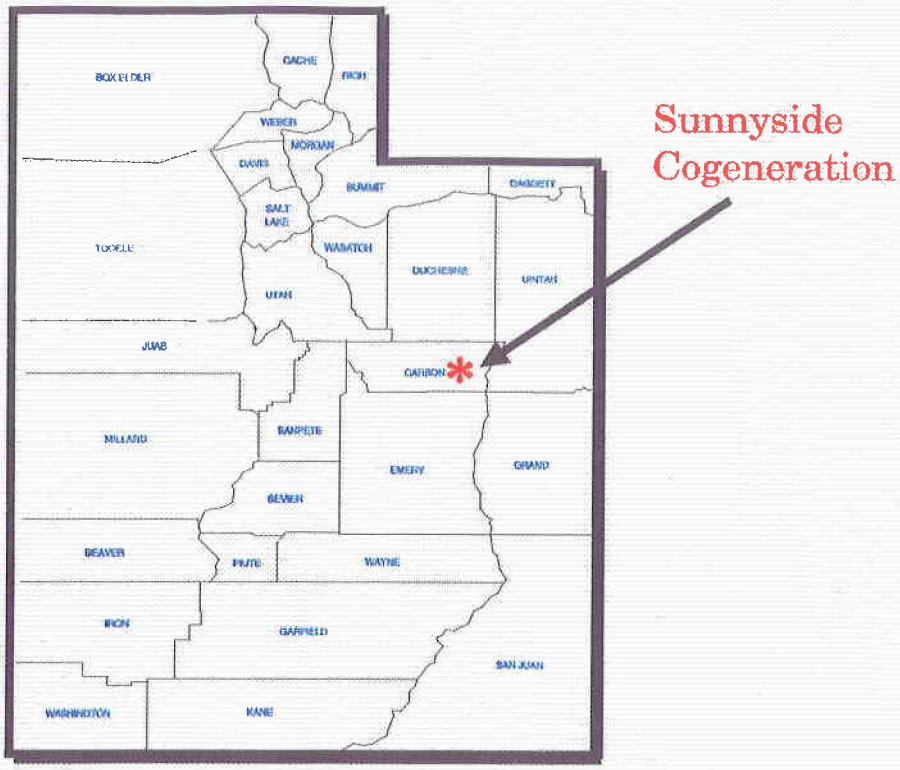
SUNNYSIDE COGENERATION ASSOCIATES
ACT/007/035
ANNUAL REPORT
1994



April 1995

Prepared by:
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Additional information was provided by:
Sunnyside Cogeneration Associates
Environmental Power Corporation
Callister, Nebeker & McCullough
Savage Industries, Inc.
Huntingdon

SUNNYSIDE COGENERATION FACILITY
Sunnyside Operations Associates, L.P.
Post Office Box 10
East Carbon, Utah 84520
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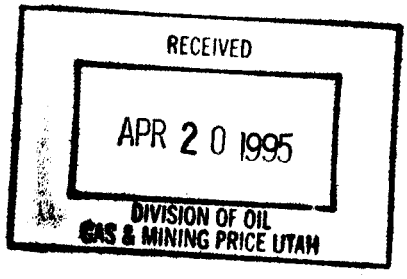
April 14, 1995



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

RE: Permit No. ACT/007/035: Sunnyside Cogeneration Associates
1994 Annual Report

Dear Pam:

Sunnyside Cogeneration Associates is submitting herewith the 1994 Annual Report. The report is comprehensive of the activities that occurred within the SCA Permit Site during 1994.

Three copies of the report are provided for the Division.

If you have any questions, please feel free the call the plant manager.

Sincerely,

Thomas G. Eckstein
Acting Plant Manager

TGE/lls

Attachments

c.c. Bob Evans, NRG
Jim O'Donnell, NRG
Doug Burnham, B&W
Alane Boyd, EWP
Jim Comas, EWP
Scott Carlson, EWP
Brian Burnett, CNM
Bill Malencik, DOGM
file

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COAL MINING AND RECLAMATIONS OPERATIONS FOR 1994

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

Permittee: Sunnyside Cogeneration Associates

Mine Name: Sunnyside Cogeneration Associates

Company Representative: Mr. David Pearce

Resident Agent: Mr. Fred Finlinson

Permit Number: ACT/007/035

MSHA ID Number: 1211-UT-09-01818-01

Date of Initial Permanent Program Permit: February 4, 1993

Date of Permit Renewal: February 4, 1998

Quantity of Coal Mined (tonnage) 1994: 390,000 tons

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SUNNYSIDE COGENERATION ASSOCIATES
1994 ANNUAL REPORT

A. GENERAL INFORMATION

Missing Permit Data

The last major component of the permit was submitted to the Division on January 13, 1995. Some additional minor background data which is to be collected during 1995 remains to be submitted. SCA is waiting for a technical analysis of the permit items submitted during 1994 in order to respond to any deficiencies.

A program to characterize the material within and underlying the Refuse Pile is expected to occur during 1995.

Monitoring Changes

Baseline and UPDES water monitoring within the DOGM Permit Area continued throughout 1994. A special study of the Coarse Refuse Seep began in May 1994 and is expected to continue through May 1995.

The UPDES Permit for the Sunnyside Cogeneration Facility was modified in November 1994 by the Division of Water Quality in order to add two additional discharge points (unrelated to the mining operation within the DOGM permit boundary) and to correct information concerning the discharge from outfall 004 (the permit previously indicated that 004 discharged to Grassy Trail Creek but was corrected to say Icelander Creek). The modified UPDES permit was submitted to DOGM to replace the former permit in Chapter 7, Appendix 7-1 of the SCA Permit.

Final Reclamation earthwork and reseeding was completed on the Old Coarse Refuse Road in the late Fall of 1994. Regular vegetation monitoring will begin in 1995 and continue annually as required in the permit.

B. SUMMARY OF WATER MONITORING DATA

Included with this report is a summary of the water monitoring that was accomplished for the Sunnyside Cogeneration Associates (SCA) Permit Site from January to December, 1994. The monitoring was performed by Huntingdon of Salt Lake City, Utah. Huntingdon provided all field data and analyses for the water monitoring, while Eckhoff, Watson, and Preator Engineering (EWP) coordinated with applicable agencies and filed current information on-site. EWP also began a special study of the flows at the Coarse Refuse Seep locations in May, 1994.

A summary of the water monitoring data is included as Lotus (WK1) and Quattro Pro (WQ1) files on the enclosed disk.

Baseline Water Monitoring Locations

Table One lists the baseline water monitoring locations along with their corresponding location ID and sampling elevation. These sites are shown on various plates throughout Chapter 7 of the SCA Permit number ACT/007/035 and are marked in the field. **Appendix A** includes a summary and interpretation of the water monitoring data. The Baseline Water Monitoring Schedule is included in Chapter 7, Appendix 7-8, of the SCA Permit.

Collection of baseline water monitoring data began in June, 1993. This monitoring is scheduled to be conducted for two years (until June 1995) after which the baseline sites will be monitored as operational sites according to a list of parameters to be negotiated between DWQ, DOGM, and SCA.

TABLE ONE: BASELINE WATER MONITORING LOCATIONS

SITE	LOCATION ID	SAMPLING ELEVATION
Coarse Refuse Seep at Source	CRS	6192
Coarse Refuse Seep at Railroad Culvert (EWP Special Study)	CRC	6163
Coarse Refuse Seep at Boundary	CRB	6122
Icelander Columbia Dugway Spring 1350 (Whitmore Spring)	F-2	6032
Icelander Creek	ICE-1	6182
East Carbon City Well (Dragerton Well) (Municipal Use-Groundwater)	Well	6402

Operational Water Monitoring Locations and UPDES Permit Information

The UPDES Permit issued to SCA is included in the SCA Permit as Appendix 7-1. Table Two lists each of the operational (UPDES) monitoring stations and the corresponding outfall number, location, and sampling elevation. **Appendix A** includes a data summary and interpretation for each of these sites. These sites are shown on various plates throughout Chapter 7 of the SCA Permit number ACT/007/035. The Operational (UPDES) Water Monitoring Schedule is included in Chapter 7, Appendix 7-8, of the SCA Permit.

TABLE TWO: OPERATIONAL (UPDES) WATER MONITORING LOCATIONS

SITE	OUTFALL NUMBER	LOCATION	SAMPLING ELEVATION
Clear Water Pond	004	Lat: 39°32'52" Long: 110°23'11"	6520
Rail Cut Pond	007	Lat: 39°32'14" Long: 110°23'48"	6204
Old Coarse Refuse Pond	008	Lat: 39°32'20" Long: 110°23'03"	6491
Pasture Pond	009	Lat: 39°32'28" Long: 110°23'58"	6485
Coarse Refuse Toe Pond	012	Lat: 39°32'28" Long: 110°23'58"	6165
Coal Pile Sediment Pond	014	Lat: 39°32'45" Long: 110°23'26"	6474
Borrow Area Pond	016	Lat: 39°32'25" Long: 110°23'45"	6513

C. PRECIPITATION OR OTHER CLIMATOLOGICAL DATA

SCA has obtained precipitation and climatological data for 1994 from the Sunnyside Weather Station operated by the City of Sunnyside. This data is included as **Appendix B.** The 1994 climatological data is also included as Lotus (WK1) and Quattro Pro (WQ1) files on the enclosed disk. Previous climatological information is included in Appendix 7-2 of the SCA Permit.

The Division of Air Quality Modified Approval Order issued to SCA on February 7, 1994 is included with this report as **Appendix F.**

Appendix G includes a copy of the report of Quarterly Ambient Air Monitoring Results at the SCA Facility for the Fourth Quarter, 1994. This report was prepared by Huntingdon of Salt Lake City, Utah.

D. SUBSIDENCE MONITORING REPORT

No subsidence monitoring is required by the Sunnyside Cogeneration Permit. No material damage or diminution within the Permit Area will be caused by subsidence because no underground coal resources are available within the permit area which would cause subsidence. No past or future underground coal mining operations have or are likely to occur within the SCA Permit Area.

E. REVEGETATION EFFORTS

During 1994, many different areas were reseeded. A list of the Interim and Final seeding schedules used are included as **Exhibit 1**. Photographs of the areas that have been reseeded were taken in the Spring of 1995 and are included as **Exhibit 2**. **Drawings A-1, A-2,** and **A-3** show the locations of areas reseeded during 1994 and identify the seed mix used. Quantitative monitoring of the reseeded areas was not required during 1994.

Final reclamation earthwork and reseeding was performed on the Old Coarse Refuse Road (OCRR) during 1994. Reseeding was done within the Fall seeding window. Photographs in Exhibit 2 seem to show many areas where vegetation is beginning to grow. SCA is in the process of requesting partial bond release for the work completed. SCA will be performing revegetation monitoring of the OCRR as required for final reclamation.

The third and fourth lifts of the Coarse Refuse Pile were covered with two feet of borrow material in 1993. Interim seeding was completed in March 1994. Photographs of the lifts are shown in

Exhibit 2. A significant amount of vegetation existed in 1994 and the area is already beginning to green up again for 1995.

During an intense fall storm, some ditches down the face of the Refuse Pile were washed out. SCA replaced these ditches with 36" culverts. Interim seeding was completed in December 1994.

Two erosion areas on the east bank of the East Slurry Cell were repaired and reseeded during 1994. Photographs shown in Exhibit 2 seem to show that some vegetation is beginning to grow.

Following completion of the reclamation work on the OCRR, the slopes of the borrow area were roughened and reseeded. Interim seeding was completed in December 1994. Photographs shown in Exhibit 2 do not yet show significant quantities of vegetation, but additional growth is expected to occur throughout the upcoming year.

The Access Road Topsoil Stockpile was created and seeded prior to 1994. Additional seeding was done in March 1994 to improve the vegetation cover. Photographs shown in Exhibit 2 seem to show that the vegetation is improving.

Storage Area #1 was created during 1994. The topsoil was stockpiled towards the east end of the storage area. This stockpile received interim seeding in March 1994 and seems to have a significant amount of vegetation.

SCA may need to periodically examine the areas treated with the interim seed mix to verify that vegetation is growing adequate to meet the erosion control needs. Areas which receive final reclamation treatment will be monitored as specified in the permit.

F. IMPOUNDMENT CERTIFICATION

Each impoundment was inspected as summarized in Table 5 - 1 in the SCA Permit. The quarterly inspection/certification reports are included in **Appendix C**.

No evidence of instability, structural weakness, or hazardous conditions was found during the inspections. All of the impoundments met or exceeded the storage capacity requirements identified in the permit.

G. ANNUAL OVERBURDEN, SPOIL, AND REFUSE DATA

Refuse

During 1994, SCA mined a combined total of 390,000 tons of coarse refuse and fines in the cogeneration facility. A summary of the monthly mined quantities is identified in **Appendix D, Table D-1**. According to information provided by Savage Industries (the excavation contractor), the areas where excavation occurred are generally within the zone shown in the five year plan identified in the Mine Sequencing Maps of the SCA Permit (Plates 9 - 4 through 9 - 7). Plate 9 - 4 from the SCA Permit has been included with this report to show the mine sequencing plan. The only area outside of the zone expected to have been reached during 1994 was at the west end of the West Slurry Cell. In this area the excavation reached one lift lower than the original plan in order to obtain the quality of refuse needed by the plant.

During 1994, approximately 6,850 tons of run of mine coal was purchased from outside sources and used in the Cogeneration Facility. Due to cessation of operations at the Sunnyside Coal Mine, very little coarse refuse and slurry were delivered to the SCA Permit Area.

Prior to being utilized in the cogeneration facility, the coarse refuse was tested for specific parameters to determine the quality of the material. A summary of the test results is included as **Appendix D, Table D-2** .

Spoil

A thorough foundation investigation of the Excess Spoil Disposal Area was conducted during 1994. The report prepared by SHB-AGRA has been included into the SCA Permit as Appendix 9-2. Additional design information based on the foundation investigation was added to the SCA Permit as Appendix 9-5. The site selected as the Excess Spoil Disposal Area appears to be adequate to meet the requirements of the regulations. Inspections of the area are being conducted as required.

The total amount of spoils placed into the Excess Spoil Disposal Area during 1994 was approximately 12,000 yards of soil material from the dike of the West Slurry Cell which was removed in June, 1994. The soil material appeared to be of good quality without concerns of acid or toxic potentials. A sample was taken but the analytical results were not available at the time this report was prepared. A copy of the results will be sent to the Division when available.

H. ANNUAL REPORTS OF OFFICERS SUBMITTED TO THE DEPARTMENT OF COMMERCE

The annual reports of officers which were submitted to the Utah Department of Commerce, Division of Corporations and Commercial Code for the corporations Kaiser Power of Sunnyside, Inc. and Kaiser Systems, Inc. are included as **Appendix E**.

EXHIBIT 1
SEED MIXTURES USED IN REVEGETATION

SEEDING SCHEDULE
ATRIPLEX/GRASS AREAS

SPECIES	DRILL RATE SEEDS/FT²	DRILL RATE #PLS/ACRE	BROADCAST RATE SEEDS/FT²	BROADCAST RATE #PLS/ACRE
GRASSES				
Elymus lanceolatus				
Thickspike Wheatgrass	2.9	1.0	5.8	2.0
Elymus smithii				
Western Wheatgrass	5.8	2.0	11.6	4.0
Sitanion hystrix				
Squirreltail	13.2	3.0	26.4	6.0
Stipa Comata				
Needle-and-Threadgrass	3.4	1.0	6.8	2.0
Stipa hymenoides				
Indian Ricegrass	8.6	2.0	17.2	4.0
Elymus trachycaulus				
Slender Wheatgrass	1.3	0.5	2.6	1.0
FORBS				
Linum lewsii				
Lewis Flax	13.1	2.0	26.2	4.0
Melilotus officianalis				
Yellow Sweetclover	11.9	2.0	23.8	4.0
Sphaeralcea grossulariifolia				
Gooseberry Globemallow	11.5	1.0	23.0	2.0
SHRUBS				
Atriplex canescens				
Fourwing Saltbrush	4.4	3.0	8.8	6.0
Atriplex confertifolia				
Shadscale	4.5	3.0	9.0	6.0
Ceratoides lanata				
Winterfat	5.1	2.0	10.2	4.0
Atriplex/gardneri				
Gardner Saltbrush	3.0	1.0	6.0	2.0
	88.7	23.5	177.4	47.0

INTERIM SEED SCHEDULE		
SPECIES	**SEEDS/POUND**	**BROADCAST RATE #PLS/Acre**
Agropyron trichophorum pubescent wheatgrass	90,000	3.6
Agropyron trachycalum slender wheatgrass	135,000	4.8
Agropyron dasystachum thickspike wheatgrass	186,000	1.8
Elymus cinereus great basin wildrye	130,000	3.77
Saniguisorba minor small burnett	55,000	3.0
Achillea lanulosa western yarrow	4,123,635	0.1
Medicago Sativa alfalfa	16,000	2.0
TOTAL #PLS		**19.07**

EXHIBIT 2
PHOTOGRAPHS OF THE REVEGETATION AREAS

Access Road Topsoil Stockpile

Storage Area #1 Topsoil Stockpile

East Slurry Cell Bank

Borrow Area

Third and Fourth Lifts of the Refuse Pile

Final Reclamation of the Old Coarse Refuse Road