File in:
☐ Confidential
☐ Shelf
☒ Expandable
Refer to Record No 0002 * Date 01242000
In C 007 0035 2000, Incoming
For additional information * 0002

1999 Annual Report

Sunnyside Cogeneration Associates
Sunnyside Refuse/Slurry

ACT/007/035
March 2000

SUNNYSIDE COGENERATION ASSOCIATES
SUNNYSIDE REFUSE/SLURRY
ACT/007/035
1999 ANNUAL REPORT

Submitted to:

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Prepared by:

PSOMAS
2825 East Cottonwood Parkway, Suite 120
Salt Lake City, UT, 84121
(801) 270-5777

File in:
❑ Confidential
❑ Shelf
☒ Expandable
Refer to Record No 0002 Date 1/24/2000
In C/007/035, 2000, Incoming
For additional information
*0002

0002

COPY

Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (435) 888-4476 • Fax (435) 888-2538

January 24, 2000

Fax Cover Letter to Bill @ PFO.

ACT/007/035

Incoming

Daron Haddock
STATE OF UTAH
Division of Oil, Gas & Mining
1594 W. North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Annual 1999 Inspection Report

Dear Mr. Haddock:

Please find enclosed a copy of the Annual 1999 Inspection Report for Sunnyside Cogeneration Associates' impoundments, refuse pile and excess spoil areas. The inspection was performed by a professional engineer from Psomas and Associates Engineering.

Should you have any questions, please contact me at (435)888-4476.

Sincerely,

Agent For
Sunnyside Cogenerations Associates

Rusty Netz

Rusty Netz
Environmental Coordinator

Enclosure

c.c. Bill Malencik/Division of Oil, Gas & Mining
John A. Kuzar/MSHA
Plant File

RECEIVED
JAN 27 2000
DIVISION OF
OIL, GAS AND MINING

File in:
C/007/035, 2000, Incoming
Refer to:
☐ Confidential
☐ Shelf
☒ Expandable
Date 01/27/00 For additional information

* 0002

SUNNYSIDE COGENERATION ASSOCIATES

SUNNYSIDE REFUSE/SLURRY

1999 ANNUAL REPORT

TABLE OF CONTENTS

I. General Permit Information:

II. Identification of Other Permits

III. Certified Reports

IV. Reporting of Other Technical Data

1. Climatological Data
2. Subsidence Monitoring Data
3. Vegetation Monitoring Data
4. Raptor Surveys
5. Soils Monitoring Data
6. Water Monitoring Data
7. Geological / Geophysical Data
8. Engineering Data (Refuse Excavation and Spoils Disposal)
9. Other Data

V. Legal, Financial, Compliance and Related Information

Annual Reports of Officers Submitted to the Department of Commerce

VI. Mine Maps

Appendix A Certified Reports

Appendix B-1 Climatological Data

Appendix B-2 Vegetation Monitoring

Exhibits B-2-a through B-2-f Photographs of the Revegetation Areas

Appendix B-3 Soil Sampling at Excess Spoil Disposal Areas #1 and #2

Appendix B-4 Water Monitoring

Appendix B-5 Mined Quantities

Appendix B-6 Approval order for Air Quality Permit

Appendix C Annual Report of Officers

Appendix D Mine Map

I. GENERAL PERMIT INFORMATION

Permit Number: ACT/007/035

Mine Name: Sunnyside Refuse/Slurry

Permittee: Sunnyside Cogeneration Associates

Company Representative & Resident Agent:
Mr. Randy J. Scott – Plant Manager
PO Box 10
East Carbon, UT 84520
(801) 888-4476
(801) 888-2538 fax

Date of Initial Permanent Program Permit: February 4, 1993

Date of Permit Renewal: February 4, 1998

Date of Expiration: February 4, 2003

II. IDENTIFICATION OF OTHER PERMITS

MSHA ID Numbers:	Sunnyside Waste Coal Site	42-02093
	Coarse Refuse Pile	1211-UT-09-02093-01
	East Slurry Cell	1211-UT-09-02093-02
	West Slurry Cell	1211-UT-09-02093-03
	Excess Spoil Disposal Area #1	1211-UT-09-02093-04
	Excess Spoil Disposal Area #2	1211-UT-09-02093-05

UPDES Permit Number: UT0024759 Renewed effective August 1, 1997
Expires July 31, 2002

Air Quality Approval Order Number: EAQE-0077-94

In accordance with state requirements, SCA submitted an application in October 1995 to the Division of Air Quality to receive a Title V operating permit. Applicable government agencies are still reviewing this permit.

An amended approval order DAQE-586-99 was granted on August 13, 1999, to establish source specific emission control requirements for the Sunnyside Cogeneration Associates. (The Approval order is included with this report as Appendix B-6).

III. CERTIFIED REPORTS

Each impoundment as well as the Refuse Pile and Excess Spoil Disposal Areas were inspected in accordance with the requirements of the Mining and Reclamation Permit. The quarterly and annual inspection / certification reports were submitted to the Division throughout the year. These reports are also included in **Appendix A**.

All of the impoundments met or exceeded the storage capacity requirements identified in the permit.

Construction of the Excess Spoil Disposal Area #1 occurred in general conformance with the design requirements listed in the permit.

Construction of the Excess Spoil Disposal Area #2 commenced in 1999 and is progressing in general conformance with design requirements.

Excavation of Coarse and Fine Refuse from the West Slurry Cell / Refuse Pile occurred in general conformance with the operational criteria and performance standards established in the permit.

IV. REPORTING OF OTHER TECHNICAL DATA

1. Climatological Data

SCA has obtained precipitation and climatological data for 1999 from the Sunnyside Weather Station operated by the City of Sunnyside. A summary table identifying this data is included in **Appendix B-1.**

2. Subsidence Monitoring Data

No subsidence monitoring is required by the approved plan. 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.

3. Revegetation Monitoring Data

During 1999, no new areas received final reclamation treatment.

As required in the approved plan, SCA performed quantitative sampling of the Old Coarse Refuse Road that was reclaimed in 1994. The report prepared to document this revegetation monitoring is also included in **Appendix B-2.** This report notes the following concerning the revegetation success:

> ... In 1999 living cover and woody species density was significantly higher for the reclaimed road when compared to the standard for revegetation success (reference area).
> ... lifeform composition appears to be approaching the proportions of the reference area, or the area chosen to be a standard for final revegetion success. Therefore, revegetation at the Sunnyside Cogeneration Facility appears to be progressing in a positive direction when compared to its reference area.

Photos documenting the vegetative growth of the previously reclaimed Old Coarse Refuse Road were taken during the year and are included in **Appendix B-2** as **Exhibit B-2-a, Exhibit B-2-b, and Exhibit B-2-c**.

Interim reseeding has been performed in previous years on several areas throughout the permit site. This interim seeding was accomplished using the approved interim seed mix included in the permit. Photos of some of these areas were taken to document the revegetation progress.

Two photos were taken during the year to document the vegetative growth of the south embankment of the East Slurry Cell and are included as **Exhibit B-2-c, Exhibit B-2-d, and Exhibit B-2-e**. **Exhibit B-2-e** also documents the revegetation of the third and fourth lifts of the Refuse Pile**. Exhibit B-2-f** the Storage Area #1 topsoil pile and the east bank of the East Slurry Cell.

Other areas previously reseeded with the interim revegetation seed mix (such as topsoil stock piles, borrow areas and other minor erosion repairs) have been periodically checked by SCA and appear to have an adequate vegetative growth similar to the surrounding area.

4. Raptor Surveys

Discussions were held in 1998 with the Division concerning whether or not raptor surveys would be needed. Both the permittee and the Division have agreed that, considering the location of the permit site and the ongoing nature of SCA's activities, it is highly unlikely that the mining and reclamation activities of SCA would negatively affect raptor nesting sites. Therefore, raptor studies would have little value and are not required by the approved permit. Hence, none were performed in 1998 or 1999.

5. Soils Monitoring Data

No periodic soil monitoring is required by the approved plan. The approved borrow areas reserved for reclamation activities have previously undergone soils studies from which the data is included in Chapter 2 of the Permit.

A series of samples was taken of material being placed in the excess spoil areas. A copy of the analytical results from the samples included in **Appendix B-3**

In the event that SCA determines it necessary to utilize soils from other sources for reclamation, the proper analysis will be performed at that time.

6. Water Monitoring Data

As required in the approved plan, SCA performed quarterly water monitoring at the specified surface and ground water monitoring locations. These sites were analyzed according to the Operational Water Quality Monitoring Parameters listed in the approved plan (Appendix 7-8). The results of these analyses indicate that the water quality has remained in general similarity to that observed during the Baseline Monitoring Period of June 1993-1995. The approved plan also requires that, at least once every five years, the monitoring sample set be analyzed for the extended list of parameters (see Table 7-2B of

the plan). SCA performed this analysis during the third quarter of 1997.

The data from each of the quarterly monitoring periods was submitted to the Division throughout the year and has been included in **Appendix B-4** of this report.

7. Geological / Geophysical Data

No periodic Geological / Geophysical monitoring is required in the approved plan. The data included as resource information in the plan is considered adequate for the operations of SCA. In the event that the operations of SCA change dramatically such that additional geologic or geophysical data becomes necessary, additional analysis will be performed at that time.

8. Engineering Data

a. Refuse Excavation

During 1999, SCA excavated a combined total of 466,513 tons of coarse refuse and fines from the refuse pile and slurry cells. A summary of the monthly mined quantities is included in **Appendix B-5**. No coarse refuse material was brought into the permit area. No run of mine coal or slurry was delivered to the SCA Permit Area during the year.

b. Excess Spoils Disposal Area #1

Construction of the Excess Spoil Disposal Area continued during 1999. Approximately 2,350 cubic yards of spoil material, boulders, and reject material (refuse with a low fuel, high ash content) was added to the pile during the year. A summary of the quarterly quantities placed in the Excess Spoil Disposal Area is included in **Appendix B-5**.

Inspections of the spoils area are conducted on a quarterly basis. Reports from these site visits are submitted to the Division throughout the year and have been included in this report with the certified reports. Photographs documenting the construction of the spoils pile have been included with the corresponding report.

c. Excess Spoil Disposal Area #2

Both Slurry Pond #1 and Slurry Pond #2 have been approved by DOGM and MSHA to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Area #2. The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a

disposal site. Placement and compaction of fill material began in the Third Quarter in the portion of this disposal area formerly known as Slurry Pond #1. Material consists generally of coarse refuse rejects and is being placed in general conformance with the approved plan. Approximately 10,000 yards of material was placed during Third Quarter and 7,500 yards during the fourth Quarter

9. Other Data

No additional periodic data is required in the approved plan.

V. LEGAL, FINANCIAL, COMPLIANCE & RELATED INFORMATION

The Annual Reports of Officers, which were submitted to the Utah Department of Commerce, Division of Corporations and Commercial Code for Sunnyside Holdings I. Inc, and Sunnyside II L.P., are included in **Appendix C**.

An organization chart showing the corporate structure of Sunnyside has also been included in the **Appendix C.**

VI. MINE MAPS

The mine map included in **Appendix D** of this report provides an update to the surface configuration of the refuse area being excavated. This refuse is then utilized as fuel for the adjacent Cogeneration Facility. The aerial survey used to generate these contours was performed in March 1999. The mining areas, which were active in 1999, are identified on the map.

APPENDIX A
CERTIFIED REPORTS

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Clear Water Pond	
Permit Number	ACT/007/035	Report Date 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Clear Water Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.9 acre-feet
Maximum Sediment Depth Elevation = 6527
Existing Sediment Elevation = 6523+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6530.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Pond was dry.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. Pond was dry. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, P.E. Project Manager

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		OCRR Pond	
Permit Number	ACT/007/035	Report Date 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Old Coarse Refuse Road Sediment Pond	
	Impoundment Number	008	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 0.9 acre-feet
Maximum Sediment Depth Elevation = 6394.75
Estimated Existing Sediment Elevation = 6394+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6399.4
Primary Drain Elevation = 6395.75

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, pond was dry, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes, no structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, P.E. Project Manager

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Pasture Pond	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Pasture Sediment Pond	
	Impoundment Number	009	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.0 acre-feet
Maximum Sediment Depth Elevation = 6485.5
Estimated Existing Sediment Elevation = 6484+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6490.6
Primary Drain Elevation = 6486.6

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		CRT Pond	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	New Coarse Refuse Toe Sediment Pond	
	Impoundment Number	012	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.6 acre-feet
Maximum Sediment Depth Elevation = 6177.0
Estimated Existing Sediment Elevation = 6176+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6183.63
Primary Drain Elevation = 6178.2

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		COAL RUNOFF POND	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Coal Runoff Sediment Pond	
	Impoundment Number	014	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.5 acre feet
Maximum Sediment Depth Elevation = 6476.0
Estimated Existing Sediment Elevation = 6474±

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6477.9
Emergency Spillway Elevation = 6479.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet and outlet conditions are good.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Borrow Area Pond	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Borrow Area Pond	
	Impoundment Number	016	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 8.3 acre-feet
Maximum Sediment Depth Elevation = 6513.3
Estimated Existing Sediment Elevation = 6511+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6517.03
Primary Drain Elevation = 6514.3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, P.E. Project Manager

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #1	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #1	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 16.4 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.8

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source
No changes. No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

When the ponds become reconfigured for use as a disposal site, we will no longer inspect them as impoundments but rather as an excess spoil pile.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #2	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #2	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 15.3 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top Of Dike Elevation = 6540.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source.
No changes. No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

When the ponds become reconfigured for use as a disposal site, we will no longer inspect them as impoundments but rather as an excess spoil pile.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Coarse Refuse Pile
Permit Number	ACT/007/035	**Report Date 3/17/99**
Mine Name	SUNNYSIDE REFUSE AND SLURRY	
Company Name	SUNNYSIDE COGENERATION ASSOCIATES	
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Coarse Refuse Pile
	Pile Number	N/A
	MSHA ID Number	1211-UT-09-02093-01
Inspection Date	3/17/99	
Inspected By	Scott Carlson	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		First Quarter Inspection 1999
		Attachments to Report? X **No** ☐ **Yes**

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   N/A

   Removal of Coarse and fine Refuse Material Only

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Coarse Refuse Pile

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions.

None

7. Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

Waste Coal Removal
No Smokers Visible

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	East Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-02	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 27+- acre-feet
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond surface was dry.
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source, currently functioning as a sediment pond. No structural or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		West Cell	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	West Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-03	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	First Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = N/A
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Slurry Cell is Inactive
Refuse Removal
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____ **Date:** 3/17/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #1	
Permit Number	ACT/007/035	**Report Date 3/17/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #1	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-04	
Inspection Date	3/17/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		First Quarter Inspection 1999	
		Attachments to Report? ☐ No X Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Received approximately 600 yards of spoils materials during this Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #1	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. Other Comments. **Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Construction has been proceeding in shallow lifts in general conformance with the approved plan.

No evidence exists of fires in the pile.

Three samples of the spoil material were analyzed according to the parameters listed in the permit during the 1st Quarter 1999 to determine suitability of the placed material for reclamation purposes. The attached map identifies the approximate location and elevation where these samples were taken. The laboratory test results for these samples are also attached and summarized. Sample "Spoils East" is unacceptable for reclamation cover due to an acid/base potential slightly below the required limit. Sample "Spoils Center" is unacceptable due to acid/base potential and Selenium content. Sample "Spoils West" meets all requirements for reclamation cover.

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #2	
Permit Number	ACT/007/035	**Report Date 3/17/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #2	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-05	
Inspection Date	3/17/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		First Quarter Inspection 1999	
		Attachments to Report? ☐ **No** ☐ **Yes**	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   Existing disturbed site. No topsoil removal is required by approved plan.

2. **Placement of underdrains and protective filter systems.**

   Not required by approved plan.

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Placement and compaction of fill material has not yet begun.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #2	

5. **Final grading and revegetation of fill.**

N/A.

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Placement of the fill material has been approved by DOGM and MSHA but has not yet begun.

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: _____ **Date:** 3/17/99

P.E. Number & State: 187727 - UT

Excess Spoil Disposal Area #1 Samples

Overburden Evaluation for Vegetative Root Zone			
	Sample Number		
Parameters	Spoils East	Spoils Center	Spoils West
pH	Good	Good	Good
Ec mmhos/cm @ 25 °C	Good	Good	Good
Saturation %	Good	Good	Good
Texture	Good	Good	Good
SAR	Good	Good	Fair
Selenium	Good	Unacceptable	Good
Boron	Good	Good	Good
Acid / Base Potential	Unacceptable	Unacceptable	Good

Parameters	Good	Fair	Poor	Unacceptable
pH	6.1 to 8.2	5.1 to 6.1 8.2 to 8.4	4.5 to 5.0 8.5 to 9.0	< 4.5 > 9.0
Ec mmhos/cm @ 25 °C	0 to 2	2 to 8	8 to 15	> 15
Saturation %	25% to 85%		< 25% > 80%	
Texture	sl, l, sil, scl, vfsl, fsl	c, sicl, sc, ls, lfs	sic, s, sc, c, cos, fs, vfs	g, vcos
SAR	0 to 4	5 to 10	10 to 12 fine texture 10 to 15 coarse texture	12 fine texture 15 coarse texture
Selenium	< 0.1 mg/Kg			> 0.1 mg/Kg
Boron	< 5.0 mg/Kg			> 5.0 mg/Kg
Acid / Base Potential	> -5 tons $CaCO_3$ / 1,000 tons material			< -5 tons $CaCO_3$ / 1,000 tons material

SUNNYSIDE COGENERATION and ASSOCIATES
EXCESS SPOIL DISPOSAL AREA #1
Analysis of spoil samples 1st Quarter 1999

Sample Site	Spoils East	Spoils Center	Spoils West
Elevation	6482	6481	6480
Lab No.	72-00676-1	72-00676-2	72-00676-3
Depths	0 - 1	1 - 2	2 - 3
pH	7.18	7.58	8.12
EC (mmhos/cm @ 25 °C)	0.55	0.55	0.68
Saturation (%)	34.9	38.0	29.4
Calcium (meq/L)	24.9	23.3	23.9
Magnesium (meq/L)	57.0	528	29.0
Sodium (meq/L)	6.35	30.4	25.5
SAR	0.99	1.83	4.96
Sand (%)	74	64	74
Silt (%)	20	24	16
Clay (%)	6	12	10
Texture Class	Sandy Loam	Sandy Loam	Sandy Loam
Total Sulfur (%)	1.04	1.17	0.49
T.S. AP (t/1000t)	32.5	36.5	15.3
Neut. Pot. (t/1000t)	23.3	27.8	119
T.S. ABP (t/1000t)	-9.20	-8.76	103
Nitrate- Nitrogen (ppm)	7.90	33.6	23.1
Boron (ppm)	1.95	0.93	0.70
Selenium (ppm)	0.07	0.30	<0.01
Total Organic Matter (%)	7.71	8.08	7.98
Carbonates	2.33	2.78	11.9

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 16, 1999

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID:EAST 1

Kind of sample SPOILS

Sample taken by SUNNYSIDE COGENERATION FAC

Date received March 9, 1999

Analysis report no. 72-401857

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390. PART-F,D-98	99.05	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	18.8	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	0.203	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.13	%

Post-it® Fax Note 7671	Date 3-16-99	# of pages ▶ 15
To SunnySide	From Rebecca	
Co./Dept. Pilot	Co.	
Phone #	Phone #	
Fax #	Fax #	

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cash

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 16, 1999

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID:CENTER 2

Kind of sample SPOILS

Sample taken by SUNNYSIDE COGENERATION FAC

Date received March 9, 1999

Analysis report no. 72-401859

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	98.80	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	18.2	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	5.71	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.14	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cate

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-0300 FAX: 630-953-8306

SINCE 1900

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4781

March 16, 1999

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID:WEST 3

Kind of sample SPOILS

Sample taken by SUNNYSIDE COGENERATION FAC

Date received March 9, 1999

Analysis report no. 72-401858

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	99.23	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	10.39	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	1.42	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.16	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cate

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4685 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 007

TEL: 303 373 4791

COMMERCIAL TEST-LAB

MAR. -16' 99 (TUE) 15:53

March 16, 1999

SUNNYSIDE COGENERATION
TOPSOIL

Location : SPOILS-E,C,Worthing :
Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00676-1	0-1	7.18	0.55	34.9	24.9	57.0	6.35	0.99	74	20	6	SANDY LOAM	SPOILS EAST
72-00676-2	1-2	7.58	0.55	38.0	23.3	528.	30.4	1.83	64	24	12	SANDY LOAM	SPOILS CENTER
72-00676-3	2-3	8.12	0.68	29.4	23.9	29.0	25.5	4.96	74	16	10	SANDY LOAM	SPOILS WEST

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Catt

Manager, Denver Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

F-467/072/95
Original Watermarked For Your Protection

TERMS AND CONDITIONS ON REVERSE

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306
SINCE 1908
Member of the SGS Group (Société Générale de Surveillance)
PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 008
TEL:303 373 4791
COMMERCIAL TEST-LAB
MAR.-16'99(TUE) 15:53

March 16, 1999

SUNNYSIDE COGENERATION
TOPSOIL

Location : SPOILS-E,C,Worthing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP. t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00676-1	0-1		1.04	32.5	23.3	-9.20				SPOILS EAST
72-00676-2	1-2		1.17	36.5	27.8	-8.76				SPOILS CENTER
72-00676-3	2-3		0.49	15.3	119	103.				SPOILS WEST

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburdan Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburdan/ Spoil Material, University of Wyoming, College of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

Manager, Denver Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES
F-467/072/95
Original Watermarked For Your Protection
TERMS AND CONDITIONS ON REVERSE

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 009 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-16'99(TUE) 15:53

March 16, 1999

SUNNYSIDE COGENERATION
TOPSOIL

Location : SPOILS-E, C, Northing :
Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00676-1	0-1		7.90	1.95		0.07		SPOILS EAST
72-00676-2	1-2		33.6	0.93		0.30		SPOILS CENTER
72-00676-3	2-3		23.1	0.70		<0.01		SPOILS WEST

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cate

Manager, Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306
SINCE 1908
Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 010
TEL:303 373 4791
COMMERCIAL TEST-LAB
MAR.-16'99(TUE) 15:53

March 16, 1999

SUNNYSIDE COGENERATION
TOPSOIL

Location : SPOILS-E,C,Worthing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00676-1	0-1	7.71	2.33		0.07		SPOILS EAST
72-00676-2	1-2	8.05	2.7%		0.30		SPOILS CENTER
72-00676-3	2-3	7.98	11.9		<0.01		SPOILS WEST

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

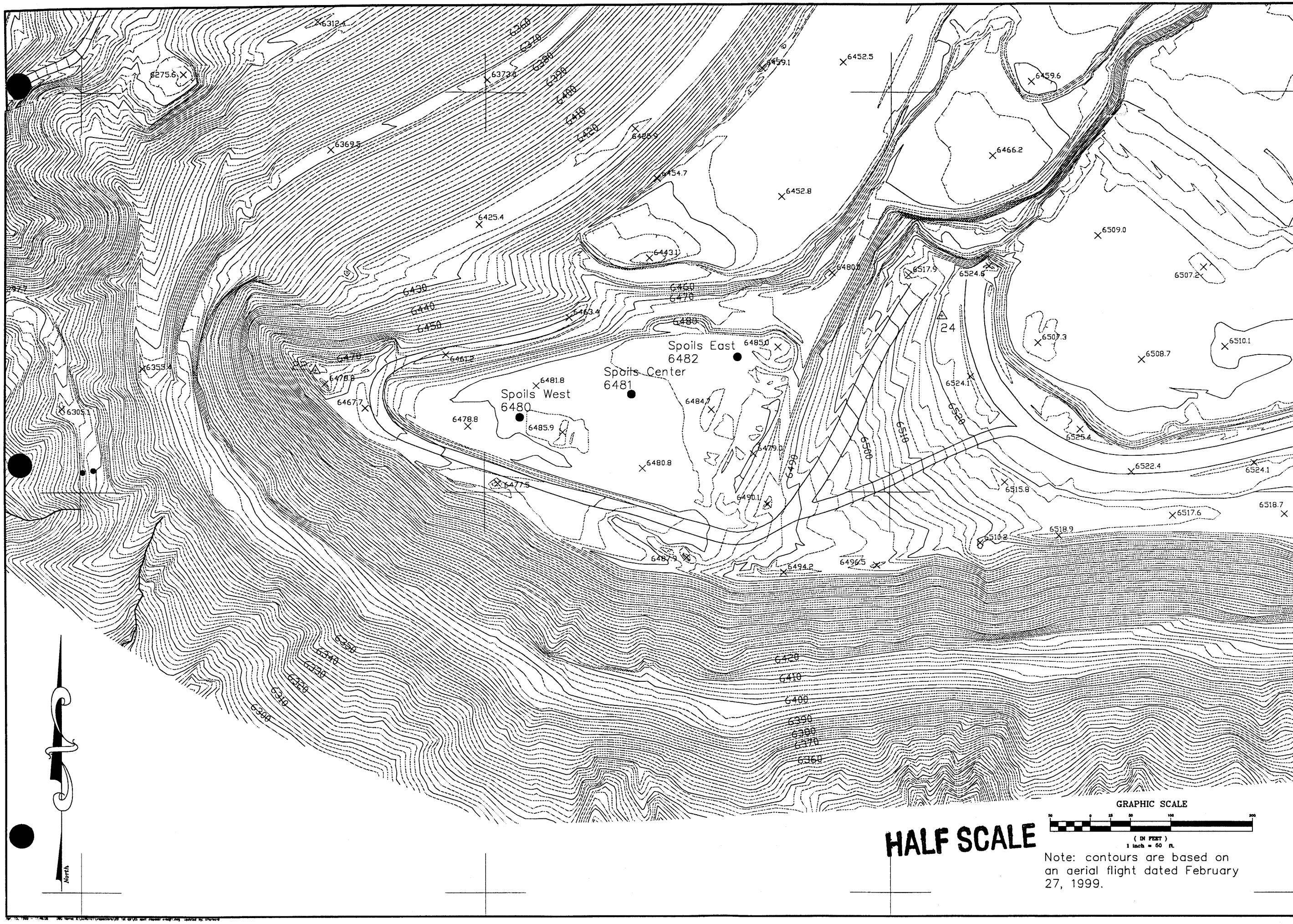
Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cate
Manager, Denver Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

F-467/072/95
Original Watermarked For Your Protection

TERMS AND CONDITIONS ON REVERSE



HALF SCALE

Note: contours are based on an aerial flight dated February 27, 1999.

DATE: 4-15-99
PLOT DATE:
SCALE: 1" = 50'
PROJECT NUMBER: 8SUN0103

Sunnyside Cogeneration Associates
Excess Spoil Disposal Area #1

PSOMAS
2595 E Cottonwood Parkway
Suite 120
Salt Lake City, UT 84121
(801) 270-5777

DESIGNED: BH
DRAFTED: BH
CHECKED: BH

SHEET 1 OF 1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Clear Water Pond	
Permit Number	ACT/007/035	Report Date 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Clear Water Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.9 acre-feet
Maximum Sediment Depth Elevation = 6527
Existing Sediment Elevation = 6523+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6530.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Pond was dry.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J. Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

CERTIFIED REPORT

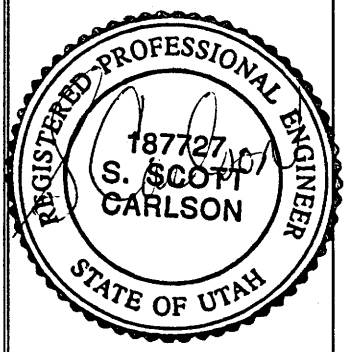
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. Pond was dry. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

By: S. Scott Carlson, P.E., Project Manager

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		OCRR Pond	
Permit Number	ACT/007/035	Report Date 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Old Coarse Refuse Road Sediment Pond	
	Impoundment Number	008	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 0.9 acre-feet
Maximum Sediment Depth Elevation = 6394.75
Estimated Existing Sediment Elevation = 6394+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6399.4
Primary Drain Elevation = 6395.75

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, pond was dry, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes, no structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

CERTIFIED REPORT

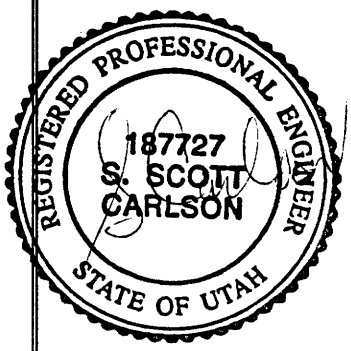
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Pasture Pond	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Pasture Sediment Pond	
	Impoundment Number	009	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.0 acre-feet
Maximum Sediment Depth Elevation = 6485.5
Estimated Existing Sediment Elevation = 6484+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6490.6
Primary Drain Elevation = 6486.6

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was damp.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

CERTIFIED REPORT

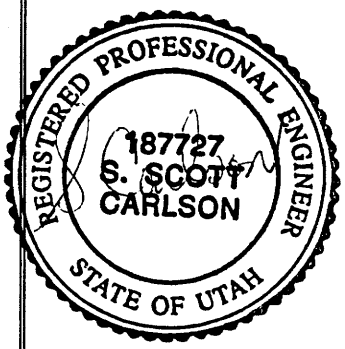
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		CRT Pond	
Permit Number	ACT/007/035	Report Date 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	New Coarse Refuse Toe Sediment Pond	
	Impoundment Number	012	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.6 acre-feet
Maximum Sediment Depth Elevation = 6177.0
Estimated Existing Sediment Elevation = 6176+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6183.63
Primary Drain Elevation = 6178.2

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: /Scott Carlson/ **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

CERTIFIED REPORT

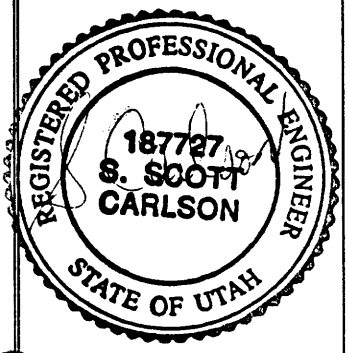
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		COAL RUNOFF POND	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Coal Runoff Sediment Pond	
	Impoundment Number	014	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Storage Capacity = 1.5 acre feet
Maximum Sediment Depth Elevation = 6476.0
Estimated Existing Sediment Elevation = 6474±

3. Principle and emergency spillway elevations.

Spillway Elevation = 6477.9
Emergency Spillway Elevation = 6479.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet and outlet conditions are good.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Borrow Area Pond	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Borrow Area Pond	
	Impoundment Number	016	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 8.3 acre-feet
Maximum Sediment Depth Elevation = 6513.3
Estimated Existing Sediment Elevation = 6511+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6517.03
Primary Drain Elevation = 6514.3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #1	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #1	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 16.4 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.8

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal Area #2, the Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

With the beginning of construction activities for the new spoil area and rerouting of stormwaters, this is the last inspection report for the Slurry Pond #1 as an impoundment. From this point forward, an inspection report for the Excess Spoil Disposal Area #2 will be filed.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #2	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #2	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 15.3 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal Area #2, the Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S. Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

With the beginning of construction activities for the new spoil area and rerouting of stormwaters, this is the last inspection report for the Slurry Pond #1 as an impoundment. From this point forward, an inspection report for the Excess Spoil Disposal Area #2 will be filed.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Coarse Refuse Pile
Permit Number	ACT/007/035	**Report Date 6/15/99**
Mine Name	SUNNYSIDE REFUSE AND SLURRY	
Company Name	SUNNYSIDE COGENERATION ASSOCIATES	
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Coarse Refuse Pile
	Pile Number	N/A
	MSHA ID Number	1211-UT-09-02093-01
Inspection Date	6/15/99	
Inspected By	Scott Carlson	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Second Quarter Inspection 1999
		Attachments to Report? X **No** ☐ **Yes**

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Coarse Refuse Pile

N/A

Removal of Coarse and fine Refuse Material Only

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Waste Coal Removal
No Smokers Visible

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		East Slurry Cell	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	East Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-02	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 27+- acre-feet
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond surface was dry.
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source, currently functioning as a sediment pond. No structural or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

CERTIFIED REPORT

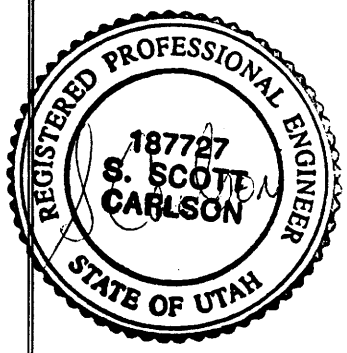
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		West Cell	
Permit Number	ACT/007/035	**Report Date** 6/15/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	West Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-03	

IMPOUNDMENT INSPECTION

Inspection Date	6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Second Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = N/A
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Slurry Cell is Inactive
Refuse Removal
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 6/15/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

CERTIFIED REPORT

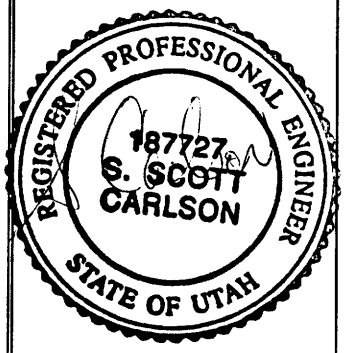
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #1	
Permit Number	ACT/007/035	**Report Date 6/15/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #1	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-04	
Inspection Date	6/15/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Second Quarter Inspection 1999	
		Attachments to Report? X **No** ☐ **Yes**	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Received approximately 250 yards of spoils materials during this Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #1	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Construction has been proceeding in shallow lifts in general conformance with the approved plan.

No evidence exists of fires in the pile.

As discussed on site with Rusty Netz of SCA and Bill Malencik of DOGM, the large cobble/boulder material currently in place on the Easterly face of the spoil area are not adequate for final surface material. Additional spoil material (of a more "reclamation friendly" nature) will need to be placed on this outer face prior to completion of the lift for interim reclamation.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #2	
Permit Number	ACT/007/035	**Report Date 6/15/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #2	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-05	
Inspection Date	6/15/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Second Quarter Inspection 1999	
		Attachments to Report? ☒ **No** ☐ **Yes**	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   Existing disturbed site. No topsoil removal is required by approved plan.

2. **Placement of underdrains and protective filter systems.**

   Underdrains and filters are not required by approved plan. The Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Placement and compaction of fill material has not yet begun.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #2	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Placement of the fill material has been approved by DOGM and MSHA but has not yet begun.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 6/15/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Clear Water Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Clear Water Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.9 acre-feet
Maximum Sediment Depth Elevation = 6527
Existing Sediment Elevation = 6523+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6530.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Pond was dry.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

By: S. Scott Carlson Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. Pond was dry. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

CERTIFIED REPORT

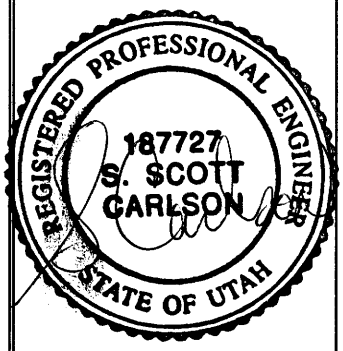
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		OCRR Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Old Coarse Refuse Road Sediment Pond	
	Impoundment Number	008	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 0.9 acre-feet
Maximum Sediment Depth Elevation = 6394.75
Estimated Existing Sediment Elevation = 6394+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6399.4
Primary Drain Elevation = 6395.75

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, pond was dry, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes, no structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

CERTIFIED REPORT

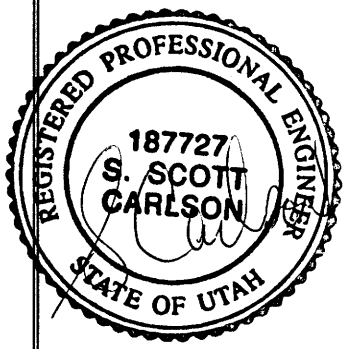
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Pasture Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Pasture Sediment Pond	
	Impoundment Number	009	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.0 acre-feet
Maximum Sediment Depth Elevation = 6485.5
Estimated Existing Sediment Elevation = 6484+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6490.6
Primary Drain Elevation = 6486.6

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had < 1 foot of water in it.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		CRT Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	New Coarse Refuse Toe Sediment Pond	
	Impoundment Number	012	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.6 acre-feet
Maximum Sediment Depth Elevation = 6177.0
Estimated Existing Sediment Elevation = 6176+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6183.63
Primary Drain Elevation = 6178.2

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

CERTIFIED REPORT

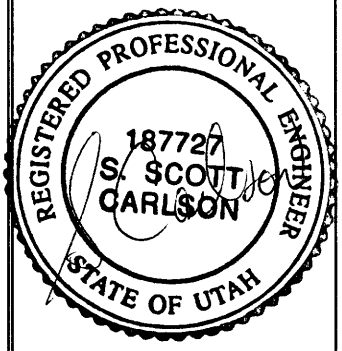
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		COAL RUNOFF POND	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Coal Runoff Sediment Pond	
	Impoundment Number	014	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.5 acre feet
Maximum Sediment Depth Elevation = 6476.0
Estimated Existing Sediment Elevation = 6474±

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6477.9
Emergency Spillway Elevation = 6479.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet and outlet conditions are good.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Borrow Area Pond	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Borrow Area Pond	
	Impoundment Number	016	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Storage Capacity = 8.3 acre-feet
Maximum Sediment Depth Elevation = 6513.3
Estimated Existing Sediment Elevation = 6511+-

3. Principle and emergency spillway elevations.

Spillway Elevation = 6517.03
Primary Drain Elevation = 6514.3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #2	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #2	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 15.3 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal Area #2, the Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments. SCA has befun to place spoil materials in Slurry Pond #1. No materials have yet been placed in Slurry Pond #2.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

When SCA begins to fill this area with spoil materials, we will no longer submit a report for the Slurry Pond #2.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson Date: 9/30/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Coarse Refuse Pile
Permit Number	ACT/007/035	**Report Date 9/30/99**
Mine Name	SUNNYSIDE REFUSE AND SLURRY	
Company Name	SUNNYSIDE COGENERATION ASSOCIATES	
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Coarse Refuse Pile
	Pile Number	N/A
	MSHA ID Number	1211-UT-09-02093-01
Inspection Date	7/28/99	
Inspected By	Scott Carlson	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Third Quarter Inspection 1999
		Attachments to Report? X **No** ☐ **Yes**

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   N/A

   Removal of Coarse and fine Refuse Material Only

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Coarse Refuse Pile

5. **Final grading and revegetation of fill.**

N/A

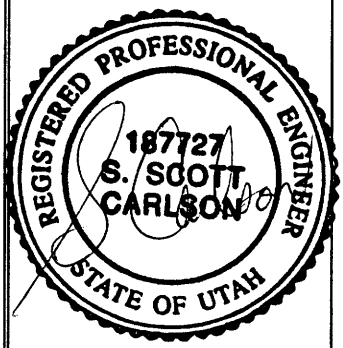
6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Waste Coal Removal
No Smokers Visible

Certification Statement



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	East Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-02	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Sto Capacity = 27+- acre-feet
Maximum Sediment Depth Elevation = N/A
Est ed Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond surface was dry.
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source, currently functioning as a sediment pond. No structural or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

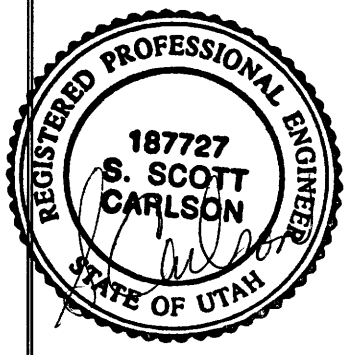
CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		West Cell	
Permit Number	ACT/007/035	**Report Date** 9/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	West Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-03	

IMPOUNDMENT INSPECTION

Inspection Date	7/28/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Third Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = N/A
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Slurry Cell is Inactive
Refuse Removal
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 9/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #1	
Permit Number	ACT/007/035	**Report Date 9/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #1	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-04	
Inspection Date	7/28/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Third Quarter Inspection 1999	
		Attachments to Report? ☐ No **X** Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Received approximately 500 yards of spoils materials during this Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #1	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Construction has been proceeding in shallow lifts in general conformance with the approved plan.

No evidence exists of fires in the pile.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #2	
Permit Number	ACT/007/035	**Report Date 9/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #2	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-05	
Inspection Date	7/28/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Third Quarter Inspection 1999	
		Attachments to Report? ☐No **X** Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   Existing disturbed site. No topsoil removal is required by approved plan.

2. **Placement of underdrains and protective filter systems.**

   Underdrains and filters are not required by approved plan. The Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Placement and compaction of fill material has begun in the portion of this disposal area formerly known as Slurry Pond #1. Material consists generally of coarse refuse rejects and is being placed in general conformance with the approved plan. Approximately 10,000 yards of material was placed during the quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #2	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Analytical results from samples taken of the material place in this disposal area will be submitted with next quarter's report.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Carlson **Date:** 9/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Clear Water Pond	
Permit Number	ACT/007/035	Report Date 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Clear Water Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Storage Capacity = 4.9 acre-feet
Maximum Sediment Depth Elevation = 6527
Existing Sediment Elevation = 6523+-

3. Principle and emergency spillway elevations.

Spillway Elevation = 6530.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Pond was dry.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

CERTIFIED REPORT

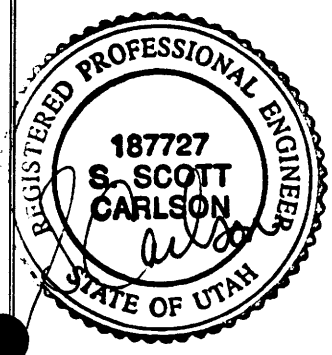
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson Project Manager
(Full Name and Title)

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	Report Date 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	Impoundment Name	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. Pond was dry. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

CERTIFIED REPORT

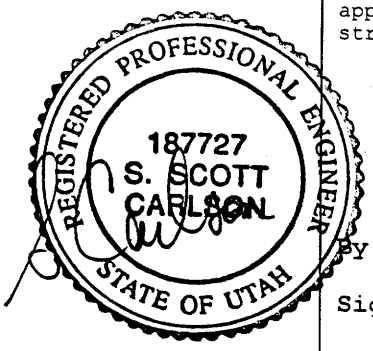
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		OCRR Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Old Coarse Refuse Road Sediment Pond	
	Impoundment Number	008	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 0.9 acre-feet
Maximum Sediment Depth Elevation = 6394.75
Estimated Existing Sediment Elevation = 6394+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6399.4
Primary Drain Elevation = 6395.75

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, pond was dry, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes, no structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

CERTIFIED REPORT

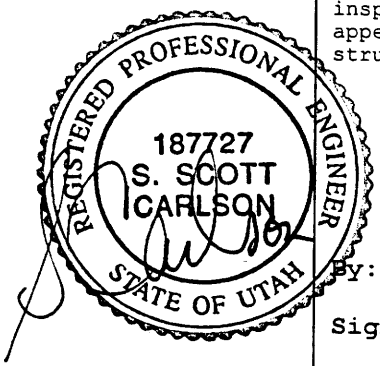
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Pasture Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Pasture Sediment Pond	
	Impoundment Number	009	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.0 acre-feet
Maximum Sediment Depth Elevation = 6485.5
Estimated Existing Sediment Elevation = 6484+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6490.6
Primary Drain Elevation = 6486.6

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		CRT Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	New Coarse Refuse Toe Sediment Pond	
	Impoundment Number	012	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.6 acre-feet
Maximum Sediment Depth Elevation = 6177.0
Estimated Existing Sediment Elevation = 6176+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6183.63
Primary Drain Elevation = 6178.2

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

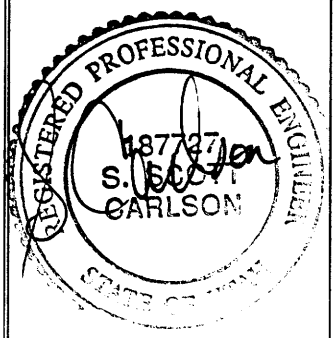
Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.



Signature: J Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		COAL RUNOFF POND	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Coal Runoff Sediment Pond	
	Impoundment Number	014	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.5 acre feet
Maximum Sediment Depth Elevation = 6476.0
Estimated Existing Sediment Elevation = 6474±

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6477.9
Emergency Spillway Elevation = 6479.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet and outlet conditions are good.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

REGISTERED PROFESSIONAL ENGINEER 18772 S. SCOTT CARLSON

Signature: S. Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Borrow Area Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Borrow Area Pond	
	Impoundment Number	016	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 8.3 acre-feet
Maximum Sediment Depth Elevation = 6513.3
Estimated Existing Sediment Elevation = 6511+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6517.03
Primary Drain Elevation = 6514.3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #2	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #2	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 15.3 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond is inactive, does not receive slurry from any source.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal Area #2, the Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments. SCA has befun to place spoil materials in Slurry Pond #1. No materials have yet been placed in Slurry Pond #2.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

SCA is in the process of removing coal fines as they dry adequately for processing and are needed for fuel. Since SCA has begun to prepare this area for spoil materials and no longer uses it as a pond, we will no longer submit a report for the Slurry Pond #2. Please refer to the inspection report for Excess Spoil Disposal Area #2.

Certification Statement:

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Coarse Refuse Pile
Permit Number	ACT/007/035	**Report Date 12/30/99**
Mine Name	SUNNYSIDE REFUSE AND SLURRY	
Company Name	SUNNYSIDE COGENERATION ASSOCIATES	
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Coarse Refuse Pile
	Pile Number	N/A
	MSHA ID Number	1211-UT-09-02093-01
Inspection Date	12/22/99	
Inspected By	Scott Carlson	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Fourth Quarter Inspection 1999
		Attachments to Report? No X Yes

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   N/A

   Removal of Coarse and fine Refuse Material Only

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Coarse Refuse Pile

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

Excavation of refuse material damaged a small portion of the westerly access road around the refuse pile. The operator was notified and agreed to repair the road and adjacent ditch and berm.

7. **Other Comments.** Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

Waste Coal Removal

One Smoker was observed at the north edge of the pile. This was brought to the attention of the operator who indicated an intent to extinguish is immediately.

Certification Statement

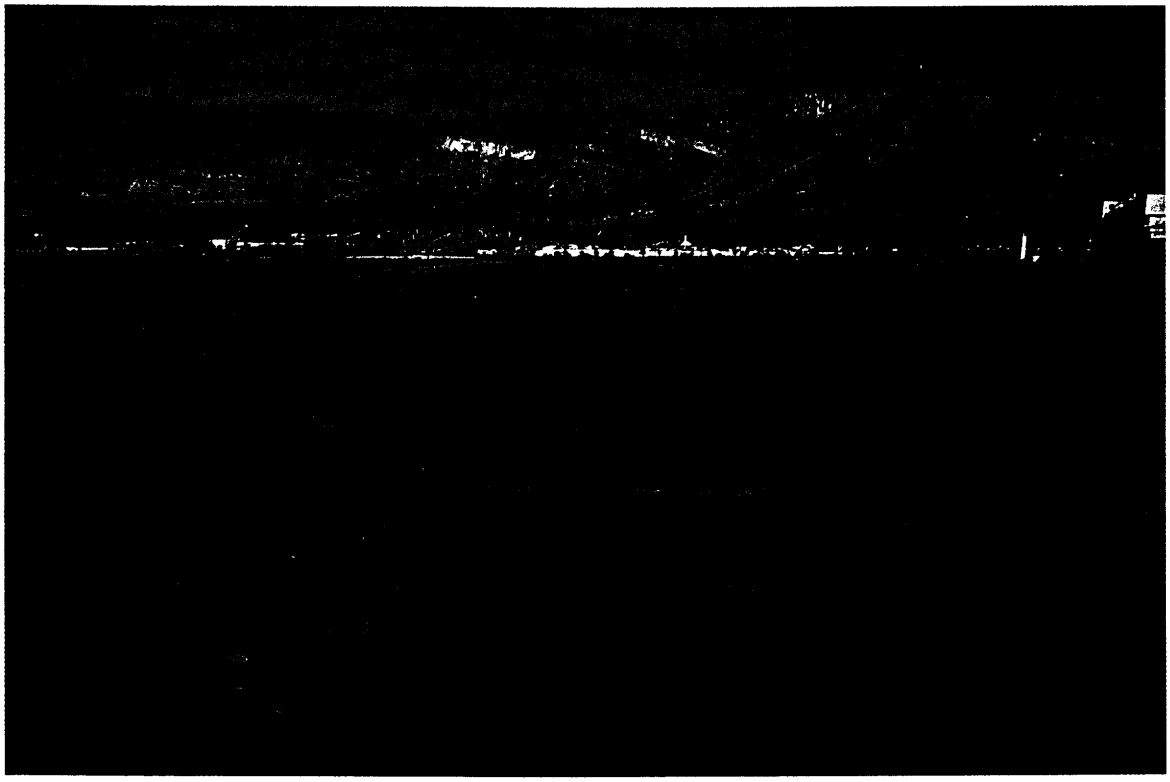
REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT



Coarse Refuse Pile
12/22/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		East Slurry Cell	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	East Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-02	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 27+- acre-feet
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond surface was dry.
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source, currently functioning as a sediment pond. No structural or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal area #2, the Slurry Ponds #1 and #2 no longer receive storm runoff. These storm flows are now routed directly to either the East Slurry Cell or to the Clear Water Pond. With the reclamation activities at Sunnyside Coal, both of these ponds have ample capacity to handle the stormflows without the Slurry Ponds in series.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

CERTIFIED REPORT

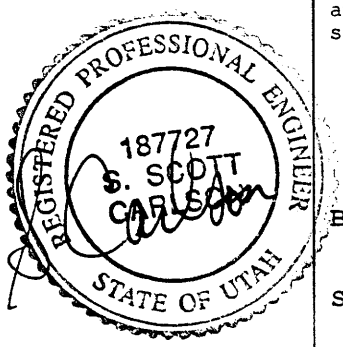
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		West Cell	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	West Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-03	

IMPOUNDMENT INSPECTION

Inspection Date	12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Fourth Quarter Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = N/A
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Slurry Cell is Inactive
Refuse Removal

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source

Excavation of refuse material damaged a small portion of the westerly access road around the refuse pile. The operator was notified and agreed to repair the road and adjacent ditch and berm.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: J Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #1	
Permit Number	ACT/007/035	**Report Date 12/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #1	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-04	
Inspection Date	12/22/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Fourth Quarter Inspection 1999	
		Attachments to Report? ☐ No **X** Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Received approximately 1,000 yards of spoils materials during this Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #1	

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions.

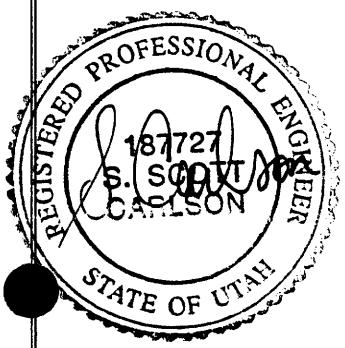
None

7. Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

Construction has been proceeding in shallow lifts in general conformance with the approved plan.

No evidence exists of fires in the pile.

Certification Statement

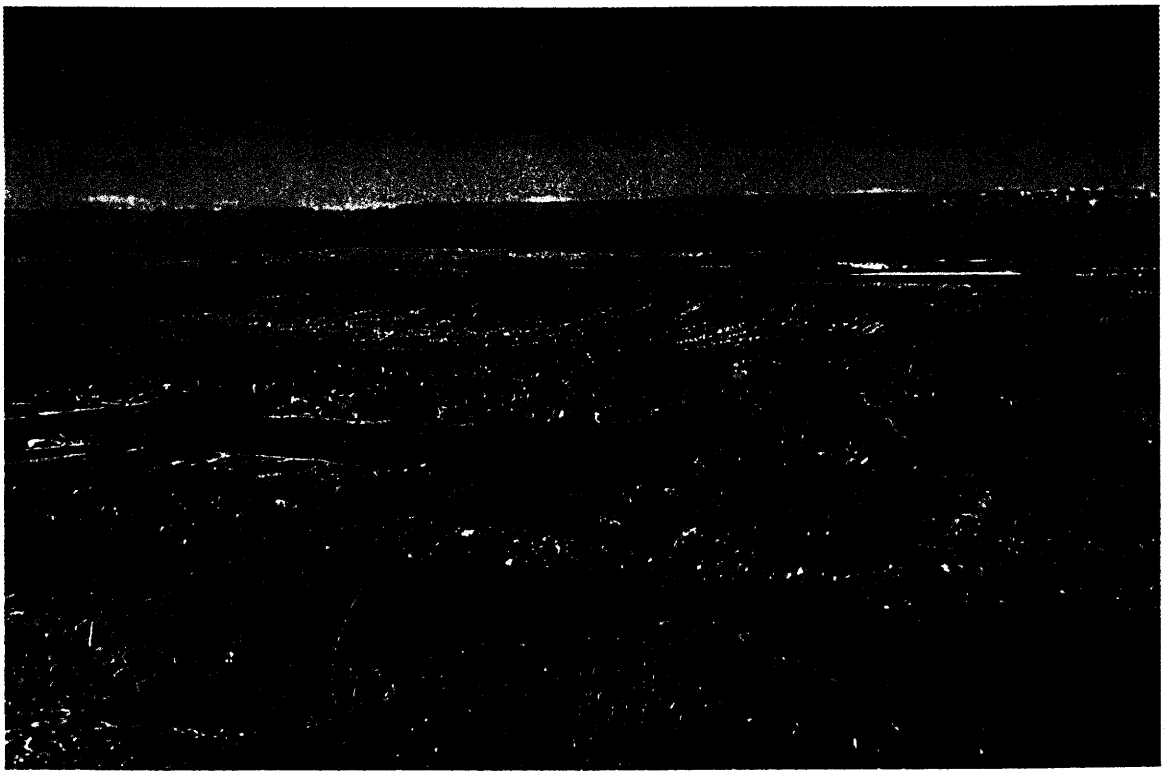


I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT



Excess Spoil Pile #1
12/22/99

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #2	
Permit Number	ACT/007/035	**Report Date 12/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #2	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-05	
Inspection Date	12/22/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Fourth Quarter Inspection 1999	
		Attachments to Report? ☐No **X** Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

Existing disturbed site. No topsoil removal is required by approved plan. SCA is currently in the process of removing accumulated coal fines from the Slurry Pond #2 area for use as fuel.

2. **Placement of underdrains and protective filter systems.**

Underdrains and filters are not required by approved plan. The Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

3. **Installation of final surface drainage systems.**

N/A

4. **Placement and compaction of fill materials.**

Placement and compaction of fill material has begun in the portion of this disposal area formerly known as Slurry Pond #1. Material consists generally of coarse refuse rejects and is being placed in general conformance with the approved plan. Approximately 10,000 yards of material was placed during Third Quarter and 7,500 yards during the Fourth Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #2	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Analytical results from samples taken of the material placed in this disposal area will be submitted with next quarter's report.

Certification Statement

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

REGISTERED PROFESSIONAL ENGINEER
187727
S. SCOTT CARLSON
STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

Excess Spoil Pile #2
12/22/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Clear Water Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Clear Water Pond	
	Impoundment Number	004	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.9 acre-feet
Maximum Sediment Depth Elevation = 6527
Existing Sediment Elevation = 6523+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6530.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Pond was dry.
No structure or stability problems observed.
Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Clear Water Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson Project Manager
(Full Name and Title)

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Railcut Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Railcut Sediment Pond	
	Impoundment Number	007	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 4.8 acre-feet
Maximum Sediment Depth Elevation = 6207.7
Estimated Existing Sediment Elevation = 6207+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6212.34
Primary Drain Elevation = 6209.07

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
no structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. Pond was dry. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Railcut Pond	

CERTIFIED REPORT

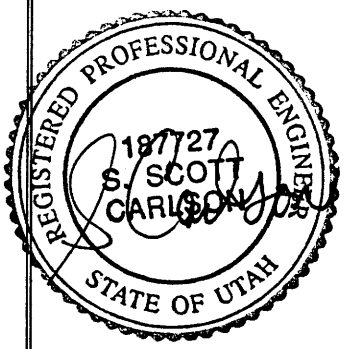
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E., Project Manager

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		OCRR Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Old Coarse Refuse Road Sediment Pond	
	Impoundment Number	008	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 0.9 acre-feet
Maximum Sediment Depth Elevation = 6394.75
Estimated Existing Sediment Elevation = 6394+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6399.4
Primary Drain Elevation = 6395.75

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, pond was dry, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes, no structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	OCRR Pond	

CERTIFIED REPORT

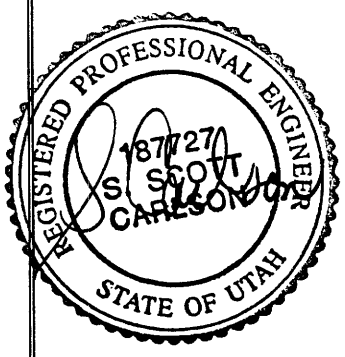
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson, P.E. Project Manager

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Pasture Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Pasture Sediment Pond	
	Impoundment Number	009	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.0 acre-feet
Maximum Sediment Depth Elevation = 6485.5
Estimated Existing Sediment Elevation = 6484+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6490.6
Primary Drain Elevation = 6486.6

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist

First Quarter: Pond had very little water in it.
Second Quarter: Pond was damp.
Third Quarter: Pond had < 1 foot of water in it.
Fourth Quarter: Pond was dry.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Pasture Pond	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		CRT Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	New Coarse Refuse Toe Sediment Pond	
	Impoundment Number	012	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.6 acre-feet
Maximum Sediment Depth Elevation = 6177.0
Estimated Existing Sediment Elevation = 6176+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6183.63
Primary Drain Elevation = 6178.2

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes. No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	CRT Pond	

CERTIFIED REPORT

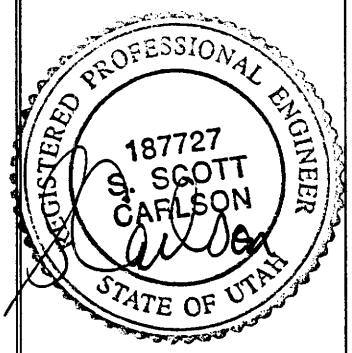
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		COAL RUNOFF POND	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Coal Runoff Sediment Pond	
	Impoundment Number	014	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 1.5 acre feet
Maximum Sediment Depth Elevation = 6476.0
Estimated Existing Sediment Elevation = 6474±

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6477.9
Emergency Spillway Elevation = 6479.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond had very little water in it.
No discharge, inlet and outlet conditions are good.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	COAL RUNOFF POND	

CERTIFIED REPORT

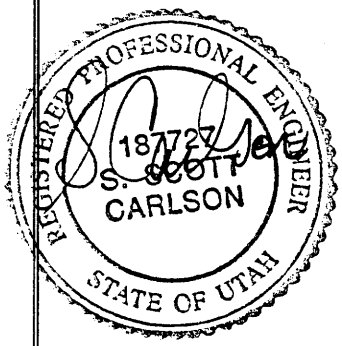
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

None

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Borrow Area Pond	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Borrow Area Pond	
	Impoundment Number	016	
	UPDES Permit Number	UT 024759	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 8.3 acre-feet
Maximum Sediment Depth Elevation = 6513.3
Estimated Existing Sediment Elevation = 6511+-

3. **Principle and emergency spillway elevations.**

Spillway Elevation = 6517.03
Primary Drain Elevation = 6514.3

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge, inlet/outlet conditions are good,
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes.
No structure or stability problems observed.

Qualification Statement	I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability. **Signature:** L Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Borrow Area Pond	

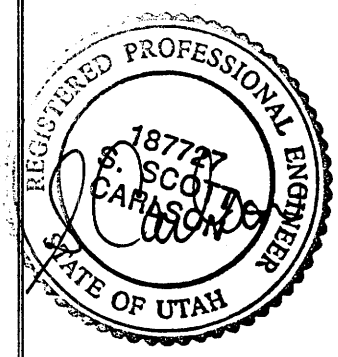
CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:



I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, P.E. Project Manager

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #1	
Permit Number	ACT/007/035	**Report Date** 3/17/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #1	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 16.4 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.8

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond does not receive slurry from any source.
No structure or stability problems observed.

Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

SCA began filling this pond with spoil materials during Summer 1999.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #1	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

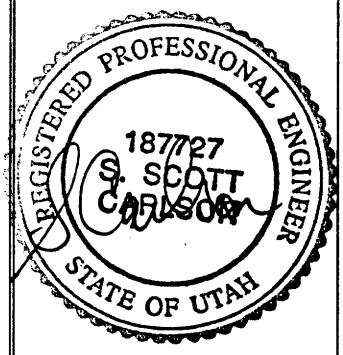
Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Construction activities began in the Second Quarter for the new spoil area and rerouting of stormwaters. From that point forward, inspection reports for this area are filed as the Excess Spoil Disposal Area #2 rather than the impoundment Slurry Pond #1.

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Slurry Pond #2	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	Slurry Pond #2	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 15.3 acre-feet
Maximum Sediment Depth Elevation = 6537.5
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

Top of Dike Elevation = 6540.1

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond was dry.
No discharge.
No structural or hazardous conditions exist.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Pond does not receive slurry from any source.
No structure or stability problems observed.

Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

In accordance with the approved plan to construct the Excess Spoil Disposal Area #2, the Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	Slurry Pond #2	

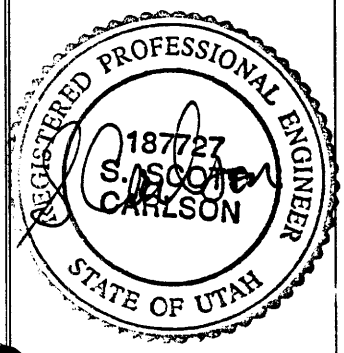
CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

SCA is in the process of removing coal fines as they dry adequately for processing and are needed for fuel. Since SCA has begun to prepare this area for spoil materials and no longer uses it as a pond, we will no longer submit a report for the Slurry Pond #2. Please refer to the inspection report for Excess Spoil Disposal Area #2.

Certification Statement:



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Coarse Refuse Pile
Permit Number	ACT/007/035	**Report Date 12/30/99**
Mine Name	SUNNYSIDE REFUSE AND SLURRY	
Company Name	SUNNYSIDE COGENERATION ASSOCIATES	
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Coarse Refuse Pile
	Pile Number	N/A
	MSHA ID Number	1211-UT-09-02093-01
Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99	
Inspected By	Scott Carlson	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Annual Inspection Report 1999
		Attachments to Report? X No ☐ Yes

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   N/A

   Removal of Coarse and fine Refuse Material Only

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Coarse Refuse Pile

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

During the Fourth Quarter, excavation of refuse material damaged a small portion of the westerly access road around the refuse pile. The operator was notified and agreed to repair the road and adjacent ditch and berm.

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

Waste Coal Removal

No smokers were visible, during the first three quarters.

However, during the Fourth Quarter inspection, one Smoker was observed at the north edge of the pile. This was brought to the attention of the operator who indicated an intent to extinguish it immediately.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		East Slurry Cell	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	East Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-02	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.**

Storage Capacity = 27+- acre-feet
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. **Principle and emergency spillway elevations.**

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Pond surface was dry.
No structural or hazardous conditions exist.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source, currently functioning as a sediment pond. No structural or stability problems observed. Reclamation of the Sunnyside Coal Property is currently underway. Among the facilities being reclaimed is the Slurry Ditch which connected to the SCA Properties. This ditch has been filled in near the SCA Property and is no longer a major storm water conveyance facility to the Slurry Ponds #1 and #2 or to the Clearwater Pond or to the East Slurry Cell. Watersheds which previously contributed to these ponds are no longer doing so.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	East Slurry Cell	

CERTIFIED REPORT

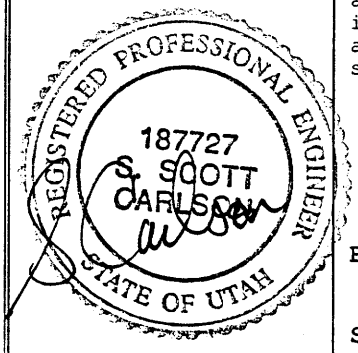
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		West Cell	
Permit Number	ACT/007/035	**Report Date** 12/30/99	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Impoundment Identification	**Impoundment Name**	West Slurry Cell	
	Impoundment Number	N/A	
	UPDES Permit Number	N/A	
	MSHA ID Number	1211-UT-09-02093-03	

IMPOUNDMENT INSPECTION

Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99
Inspected By	Scott Carlson
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual Inspection Report 1999

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

NONE

Required for an impoundment which functions as a SEDIMENTATION POND

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Storage Capacity = N/A
Maximum Sediment Depth Elevation = N/A
Estimated Existing Sediment Elevation = N/A

3. Principle and emergency spillway elevations.

N/A

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Slurry Cell is Inactive
Refuse Removal

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Slurry Cell is not receiving slurry from any source
No structure or stability problems observed.

During the Fourth Quarter, excavation of refuse material damaged a small portion of the westerly access road around the refuse pile. The operator was notified and agreed to repair the road and adjacent ditch and berm.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: S Scott Carlson **Date:** 12/30/99

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT	West Cell	

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	yes	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	yes	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	yes	

COMMENTS AND OTHER INFORMATION

none

Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

REGISTERED PROFESSIONAL ENGINEER 187727 S. SCOTT CARLSON STATE OF UTAH

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #1	
Permit Number	ACT/007/035	**Report Date 12/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #1	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-04	
Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Annual Inspection Report 1999	
		Attachments to Report? X No ☐ Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

   N/A

2. **Placement of underdrains and protective filter systems.**

   N/A

3. **Installation of final surface drainage systems.**

   N/A

4. **Placement and compaction of fill materials.**

   Received approximately 600 yards of spoils materials during First Quarter, 250 yards during Second Quarter, 500 yards during third quarter, 1,000 during Fourth Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #1	

5. **Final grading and revegetation of fill.**

N/A

6. **Appearances of instability, structural weakness, and other hazardous conditions.**

None

7. **Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.**

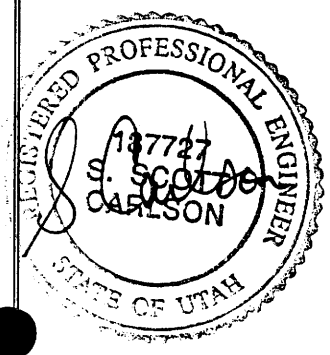
Construction has been proceeding in shallow lifts in general conformance with the approved plan.

No evidence exists of fires in the pile.

Three samples of the spoil material were analyzed according to the parameters listed in the permit during the 1st Quarter 1999 to determine suitability of the placed material for reclamation purposes. The attached map identifies the approximate location and elevation where these samples were taken. The laboratory test results for these samples are also attached and summarized. Sample "Spoils East" is unacceptable for reclamation cover due to an acid/base potential slightly below the required limit. Sample "Spoils Center" is unacceptable due to acid/base potential and Selenium content. Sample "Spoils West" meets all requirements for reclamation cover.

In the Second Quarter a discussion was held on site with Rusty Netz of SCA and Bill Malencik of DOGM. The large cobble/boulder material currently in place on the Easterly face of the spoil area are not adequate for final surface material. Additional spoil material (of a more "reclamation friendly" nature) will need to be placed on this outer face prior to completion of the lift for interior reclamation.

Certification Statement



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson **Date:** 12/30/99

P.E. Number & State: 187727 - UT

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE		Excess Spoil Pile #2	
Permit Number	ACT/007/035	**Report Date 12/30/99**	
Mine Name	SUNNYSIDE REFUSE AND SLURRY		
Company Name	SUNNYSIDE COGENERATION ASSOCIATES		
Excess Spoil Pile or Refuse Pile Identification	**Pile Name:**	Excess Spoil Disposal Area #2	
	Pile Number	N/A	
	MSHA ID Number	1211-UT-09-02093-05	
Inspection Date	3/17/99, 6/15/99, 7/28/99, 12/22/99		
Inspected By	Scott Carlson		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)		Annual Inspection Report 1999	
		Attachments to Report? X No ☐ Yes	

Field Evaluation

1. **Foundation preparation, including the removal of all organic material and topsoil.**

Existing disturbed site. No topsoil removal is required by approved plan.

In the Fourth Quarter SCA began the process of removing accumulated coal fines from the Slurry Pond #2 area for use as fuel.

2. **Placement of underdrains and protective filter systems.**

Underdrains and filters are not required by approved plan. The Slurry Ponds #1 and #2 no longer receive inflows of any storm waters. The inlet culverts have been removed and stormwater rerouted to other impoundments.

3. **Installation of final surface drainage systems.**

N/A

4. **Placement and compaction of fill materials.**

Placement and compaction of fill material began in the Third Quarter in the portion of this disposal area formerly known as Slurry Pond #1. Material consists generally of coarse refuse rejects and is being placed in general conformance with the approved plan. Approximately 10,000 yards of material was placed during Third Quarter and 7,500 yards during the Fourth Quarter.

INSPECTION AND CERTIFIED REPORT ON EXCESS SPOIL PILE OR REFUSE PILE	Excess Spoil Pile #2	

5. Final grading and revegetation of fill.

N/A

6. Appearances of instability, structural weakness, and other hazardous conditions.

None

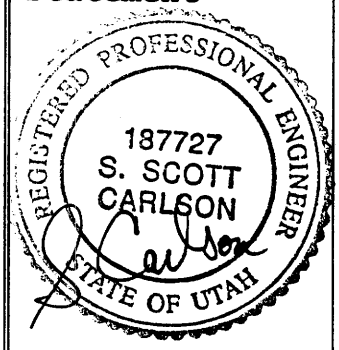
7. Other Comments. Describe any changes in the geometry of the Excess Spoil/Refuse Pile structure, instrumentation, average and maximum lifts of materials placed in the pile, elevations of active benches, total and remaining storage capacity of the structure, evidence of fires in the pile and abatement of such fires, volumes of materials placed in the structure during the year, and any other aspect of the structure affecting its stability or function which has occurred during the reporting period.

Both Slurry Pond #1 and Slurry Pond #2 have been approved to be filled with coal mine waste and excess spoil in connection with construction of the Excess Spoil Disposal Area # 2.

The Clearwater Pond is also part of this disposal area but will continue to function as a sediment pond until such time as it is needed as a disposal site.

Analytical results from samples taken of the material placed in this disposal area are not yet available and will be submitted with next quarter's report.

Certification Statement



I hereby certify that; I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson - Project Manager
(Full Name and Title)

Signature: S. Scott Carlson Date: 12/30/99

P.E. Number & State: 187727 - UT

APPENDIX B-1
CLIMATOLOGICAL DATA

SUNNYSIDE WEATHER STATION
1999 CLIMATOLOGICAL REPORT

day	Jan max temp	Jan min temp	Jan precip	Jan acc. dep	Feb max temp	Feb min temp	Feb precip	Feb acc. dep	Mar max temp	Mar min temp	Mar precip	Mar acc. dep	Apr max temp	Apr min temp	Apr precip	Apr acc. dep	May max temp	May min temp	May precip	May acc. dep	June max temp	June min temp	June precip	June acc. dep
1	45	23			38	20		tr	57	32			40	26			58	32			75	42		
2	42	18			35	15			50	27			38	20			58	32			58	43	0.11	
3	38	12			48	28			54	29			38	19		4	45	38	0.3		64	44	0.2	
4	40	15			40	24			49	33			45	25		7	45	27	tr		65	44		
5	47	22			34	29	0.5	6	39	15			40	18	0.45		45	24			55	32		
6	44	26			40	20	0.1		47	26			50	30			57	26			66	39	0.47	
7	46	25			37	29			48	32			57	32			67	36			72	47		
8	42	19			47	27			42	18	0.05		58	22	0.12		75	44			75	45		
9	43	18			49	33			47	34			43	25	0.1		59	47			76	47		
10	47	25			33	22	0.08	1.0	48	21			45	11	0.04		45	27			70	49		
11	45	23			27	5			44	32			53	25			53	25			75	45		
12	52	28			34	8			51	25			64	39			63	33			84	50		
13	48	27			45	17			54	24			66	46			60	40	0.07		85	59		
14	44	21			44	24			57	30			57	33			55	38	0.07		81	59		
15	40	23			46	26			59	34			42	20			58	34			81	56		
16	40	25			43	20			60	33			54	28			53	35			83	49		
17	45	25			45	26			65	35			59	37			60	30			70	49	0.30	
18	43	24			40	23			65	34			66	39			70	40			78	49		
19	45	30			42	29			68	40			71	24			73	45			87	56		
20	33	25	0.17	2	42	16			62	32			59	44	0.06		73	42			90	59		
21	36	20	0.36	5	43	26			59	31			43	30	0.12		77	48			82	56	0.06	
22	40	15			36	16			60	31			41	25	0.07		83	52			82	52		
23	45	24			44	26			57	33			740	28	0.25		82	62	0.04		83	56		
24		33			50	26			63				45	30			71	50			88	57		
25	44	33			52	27			65	37			40	27	0.67		67	44	0.12		88	54		
26	37	25	0.12	2	43	28			61	37			56	30	0.09		71	43			88	56		
27	38	14	0.18	3	43	22			54	38			57	38	0.1		75	52			87	53		
28	40	14	0.04	1	48	28			54	28			59	42			76	45	tr		88	55		
29	42	17							59	30			38	31	0.97		76	54			84	56		
30									62	39			48	31			82	45			87	54		
31									55	40							74	50	0.6					
total	1191	649	0.87	13.00	1168	640	0.68	7.00	1715	930	0.05	0.00	2212	875	3.04	11.00	2006	1240	1.2	0.00	2347	1512	1.14	0.00
AVG	42.54	22.38			41.71	22.86			55.32	30.00			73.73	29.17			64.71	40.00			78.23	50.40		
AVG DAILY	32.46				32.29				42.66				51.45				52.35				64.32			

acc. Dep. = accumulated depth
temperature in °F
precipitation in inches
* = equipment failure

SUNNYSIDE WEATHER STATION
1999 CLIMATOLOGICAL REPORT

day	July max temp	July min temp	July precip	July acc. dep	Aug max temp	Aug min temp	Aug precip	Aug acc. dep	Sept max temp	Sept min temp	Sept precip	Sept acc. dep	Oct max temp	Oct min temp	Oct precip	Oct acc. dep	Nov max temp	Nov min temp	Nov precip	Nov acc. dep	Dec max temp	Dec min temp	Dec precip	Dec acc. dep
1	95	59			87	54			70	56	0.05		74	42			63	36			4	28		
2	94	63			84	60			66	46	0.82		72	40			60	33			47	23		
3	92	66			77	59			70	49			74	38			60	33			37	21		
4	93	63			88	56	0.2		72	40			74	42			62	34			38	18		
5	95	58			77	58	tr		78	44			73	45			62	35			36	15		
6	92	64			75	51	0.95		82	49			70	41			65	36			38	16		
7	87	63	0.55		84	54			80	51			66	41			64	39			38	21	0.05	
8	81	62	tr		87	56			79	45			69	40			56	34			36	23	tr	
9	88	57	tr		85	57	0.15		76	50			74	44			55	33			30	14		
10	92	59			68	58			77	52	0.13		86	47			56	30			30	20	0.33	
11	88	60			69	49	0.52		71	43			77	47			59	31			36	8		
12	88	56			78	49			76	42			78	47			60	34			38	13		
13	89	62	0.04		80	52			75	44			77	49			62	32			28	17	0.11	
14	85	64	0.03		84	54			70	49			76	44			65	38			28	-1	0.07	
15	78	51	0.56		80	58			78	51	0.05		66	45			59	34			27	9		
16	77	59	0.03		82	55			70	41	tr		43	25			61	36			30	13		
17	84	57			81	56			72	40			53	22			57	34			42	16		
18	88	58	0.06		85	56			74	45			60	33			45	20			40	17		
19	81	62			83	58			64	48	0.04		58	32			45	26	TR		37	17		
20	84	55			80	56			67	38			62	34			48	26			34	17		
21	89	60			76	56	0.51		70	41	0.03		69	38			33	25			30	14	0.03	
22	87	54	0.17		82	55	0.25		72	32			72	41			35	13	0.18		33	11		
23	93	61			87	57			73	48			72	41			30	11			38	13		
24	87	61			84	61			72	45	0.04		68	40			32	8			41	17		
25	89	59			79	51	tr		78	46			68	41			35	17			49	20		
26	87	*			83	58	0.04		73	48			66	40			42	20			43	19		
27	89	60	0.03		81	57	0.12		56	38			69	39			47	26			53	22		
28	87	58			79	52			56	29			56	36			32	27			47	28		
29	85	60			85	58	tr		62	31			50	27	TR		54	30			42	23		
30	72	56	0.55		82	59			71	37			55	32			50	31			43	22		
31	78	56	1.1		76	51	0.15						61	32							35	22		
total	2694	1783	3.12	0.00	2508	1721	2.89	0.00	**2150**	**1318**	**1.16**	**0.00**	2088	1205	0	0.00	1584	862	0.18	0.00	1124	536	0.59	0.00
AVG	92.90	61.48			86.48	59.34			**74.14**	**45.45**			72.00	38.87			54.62	29.72			38.76	18.48		
AVG DAILY	77.19				72.91				59.79				55.44				42.17				28.62			

AVERAGE HIGH TEMPERATURE	64.60
AVERAGE LOW TEMPERATURE	37.35
TOTAL PRECIPITATION FOR 1998	14.92
AVERAGE MONTHLY PRECIPITATION	1.24

t

acc. Dep. = accumulated depth (snow, hail)
temperature in °F
precipitation in inches
* = equipment failure

APPENDIX B-2
VEGETATION MONITORING

VEGETATION MONITORING
AT THE
SUNNYSIDE COGENERATION FACILITY

1999

RECLAIMED OLD COARSE REFUSE ROAD
AND THE
ATRIPLEX/GRASS REFERENCE AREA

Prepared by

MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
P.O. Box 337
Springville, Utah 84663
(801) 489-6937

Patrick D. Collins, Ph.D.

for

SUNNYSIDE COGENERATION ASSOCIATES
P.O. Box 10
East Carbon, Utah 84520

March 2000

TABLE OF CONTENTS

INTRODUCTION 1

METHODS 2

RESULTS 3

Reclaimed Road 3
Reference Area 3

DISCUSSION 5

SUMMARY TABLES 6-12

COLOR PHOTOGRAPHS OF THE STUDY AREA . . . . .

RAW DATA . . . . . Appendix A

VEGETATION MONITORING
AT THE
SUNNYSIDE COGENERATION FACILITY
1999

INTRODUCTION

Quantitative or qualitative sampling of the vegetation of a road that has been reclaimed by Sunnyside Cogeneration Associates has been conducted during the growing seasons of 1996 through 1999. A reference area had been chosen at an earlier date to represent standards for revegetation success at the time of final reclamation. This reference area was also sampled for comparisons during the same period as the reclaimed road in some of these years. This document provides the sample results for 1999.

Like previous years' reports, a brief history is appropriate. Sunnyside Cogeneration Associates reclaimed an existing road on the south side of an old coarse refuse pile in the summer and fall of 1994. The work entailed regrading the road and reshaping the cut-and-fill areas to approximate the contours of the existing slopes. A seed mixture of plant species native (or approved introduced) to the area was then planted. The plant species used in the reclamation seed mixture are shown below.

PLANT SPECIES SEEDED
SHRUBS Fourwing saltbush (*Atriplex canescens*) Shadscale (*Atriplex confertifolia*) Winterfat (*Ceratoides lanata*) Gardner saltbush (*Atriplex gardneri*)
FORBS Lewis Flax (*Linum lewisii*) Yellow sweetclover (*Melilotus officinalis*) Globemallow (*Sphaeralcea grossulariifolia*)
GRASSES Thickspike wheatgrass (*Elymus lanceolatus*) Western wheatgrass (*Elymus smithii*) Needle-and-thread (*Stipa comata*) Indian ricegrass (*Stipa hymenoides*) Squirreltail (*Sitanion hystrix*) Slender wheatgrass (*Elymus trachycaulus*)

METHODS

Sampling methods have remained consistent for all years. For this report, the reclaimed Old Coarse Refuse Road and Atriplex/Grass Reference Area were sampled on August 18, 1999. Transect lines for sampling were randomly placed on the slopes of the reclaimed area to adequately represent the area as a whole. From these transect lines, sample locations were chosen using random numbers at right angles to them.

Cover estimates were made using ocular methods with meter square quadrats. Species composition was also assessed from the quadrat data. Plant nomenclature follows "A Utah Flora" (Welsh et al. 1993).

Frequency was assessed for each plant species and expressed as the relative proportion of the number of times a given species was present in the quadrats.

Density estimates of woody plant species for the reclaimed road and reference area were made using a distance method called the point-quarter. In this method, random points were placed on the sample sites and measured into four quarters. The distances to the nearest woody plant species were then recorded in each quarter. The average point-to-individual distance was equal to the square root of the mean area per individual.

Sample adequacy for cover and density was attempt with the goal that 80% of the samples were within 10% of the true mean for the plant communities in the area. The following formula was used:

$$nMIN = \frac{t^2 s^2}{(dx)^2}$$

where,

nMIN	= minimum adequate sample
t	= appropriate confidence t-value
s	= standard deviation
x	= sample mean
d	= desired change from mean

Color photographs were taken of the sample areas and are included in this report. All sample means, standard deviations, and raw data were also included in this report. The raw data summarized on spreadsheets have been included in Appendix A of the report.

RESULTS

Reclaimed Road

Total living cover of the reclaimed road was estimated to be 45.25% (Table 1). Shrubs (48.88%) and grasses (42.46%) were by far the dominant lifeform represented in the understory cover (Table 1). Like previous years, the plant species with the most cover was fourwing saltbush (*Atriplex canescens*). There was a host of forb species present in the quadrats, about half of which were "weedy" annuals, but no one species represented more than 1% cover. The dominant grass species were cheatgrass (*Bromus tectorum*), thickspike wheatgrass (*Elymus lanceolatus*), bluestem wheatgrass (Elymus smithii) and Indian ricegrass *(Stipa hymenoides*). For a complete list of species by cover refer to Table 2.

Woody species density was estimated to be 4,797 plants per acre and was also dominated by fourwing saltbush and rubber rabbitbrush. Like previous years the reclaimed road also had a significant amount of shadscale *(Atriplex confertifolia*) and winterfat (*Ceratoides lanata*). However, unlike previous years, Gardner saltbush (*Atriplex gardneri*) was also well-represented in the density measurements (Table 3). Figure 4 shows color photographs of the study areas.

Reference Area

The Atriplex/Grass community chosen to represent standards for the success of final revegetation was also sampled for comparisons. Total living cover for the reference area was estimated at

36.67% (Table 4). This area was again dominated by grasses (76.53%), followed by shrubs (23.47%). Forbs were not present this year in the sample quadrats.

The dominant grass species by cover and frequency by far was Salina wildrye (*Elymus salinus*). The dominant shrub was shadscale and represented 9.83% of the living cover and was found in 20.00% of the quadrats. For a list of the plant species by cover and frequency refer to Table 5.

Woody species density was estimated at 1,729 plants per acre, most of which was shadscale (Table 6).

DISCUSSION

A statistical comparison for cover and woody species density for the reclaimed road and the reference area is shown on Table 7. This comparison suggests that in 1999 living cover and woody species density was significantly higher for the reclaimed road when compared to the standard for revegetation success (reference area).

Also interesting to note, is the change of parameters over time. As mentioned in the Introduction of this document, vegetation sampling has been conducted on these sites since the reclamation occurred in 1994. Quantitative sampling was done in 1996, 1997 and 1999. Graphs have been provided that compare total living cover, composition and woody species density over time. One can observe some clear treads. For living cover (Figure 1) and woody species density (Figure 3),

the tread clearly shows an increase over time. The lifeform composition graph (Figure 2) also shows upward treads for grasses and shrubs, but at the expense of forbs. This may not be as negative as one might first postulate. A closer look at the data shows that most of the forbs in 1996 were weedy exotics (i.e. *Kochia scoparia*) and the introduced species called yellow sweet clover (*Melilotus officinalis*) – both of which have decreased appreciably over time. Obviously, weedy species are not desirable components of the plant community as it becomes more stable, diverse and self-perpetuating. Yellow sweetclover is a desirable species during initial establishment of perennial species because it can act as a "nurse plant" providing shade, organic matter and erosion control for the reclaimed area, but as far as a long-time dominant species, it would not be as desirable in this area. Actually, over time lifeform composition appears to be approaching the proportions of the reference area, or the area chosen to be a standard for final revegetation success. Therefore, revegetation at the Sunnyside Cogeneration Facility appears to be progressing in a positive direction when compared to its reference area.

TABLE 1: Total cover and composition summary for the reclaimed Old Coarse Refuse Road at the Sunnyside Cogeneration Facility (1999).

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE
Living Cover	45.25	12.50	40
Litter	9.13	3.85	40
Bareground	19.50	13.77	40
Rock	26.13	15.83	40
COMPOSITION			
Shrubs	48.88	27.87	40
Forbs	8.66	13.24	40
Grasses	42.46	23.07	40

TABLE 2: Species cover and frequency summary for the reclaimed Old Coarse Refuse Road at the Sunnyside Cogeneration Facility (1999).

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex canescens	12.70	15.62	40	62.50
Atriplex confertifolia	2.65	5.85	40	22.50
Atriplex gardneri	2.33	6.37	40	15.00
Ceratoides lanata	0.63	2.29	40	7.50
Chrysothamnus nauseosus var. *albicaulis*	4.30	9.53	40	27.50
Chrysothamnus nauseosus var. *consimilis*	0.50	2.18	40	5.00
FORBS				
Machaeranthera grindelioides	0.83	2.56	40	10.00
Malcomia africana	0.18	0.83	40	5.00
Medicago sativa	0.13	0.78	40	2.50
Melilotus officinalis	0.48	1.76	40	10.00
Salsola pestifer	0.58	1.91	40	10.00
Sisymbrium altissimum	0.63	2.78	40	5.00
Sphaeralcea grossulariifolia	0.58	1.39	40	17.50
GRASSES				
Bromus tectorum	6.28	8.11	40	47.50
Elymus lanceolatus	6.20	7.08	40	57.50
Elymus salinus	0.25	1.56	40	2.50
Elymus smithii	3.38	7.61	40	22.50
Stipa comata	0.68	1.81	40	12.50
Stipa hymenoides	2.00	4.72	40	22.50

TABLE 3: Woody species densities of the reclaimed Old Coarse Refuse Road at the Sunnyside Cogeneration Facility (1999).

	NUMBER/ACRE
Atriplex canescens	2278.54
Atriplex confertifolia	479.69
Atriplex gardneri	329.79
Ceratoides lanata	359.77
Cercocarpus ledifolius	29.98
Chrysothamnus nauseosus var. *albicaulis*	1229.21
Chrysothamnus nauseosus var. *consimilis*	59.96
Gutierrezia sarothrae	29.98
TOTAL	4796.93

TABLE 4: Total cover and composition summary for the Atriplex/Grass Reference Area at the Sunnyside Cogeneration Facility (1999).

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE
Living Cover	36.67	10.75	30
Litter	9.17	5.01	30
Bareground	8.33	8.79	30
Rock	45.83	14.95	30
COMPOSITION			
Shrubs	23.47	27.93	30
Forbs	0.00	0.00	30
Grasses	76.53	27.93	30

TABLE 5: Species cover and frequency summary for the Atriplex/Grass Reference Area at the Sunnyside Cogeneration Facility (1999).

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Atriplex confertifolia	9.83	12.49	30	53.33
GRASSES				
Bromus tectorum	1.67	4.15	30	20.00
Elymus salinus	21.93	14.51	30	86.67
Hilaria jamesii	1.00	5.39	30	6.67
Stipa hymenoides	2.23	4.47	30	23.33

TABLE 6: Woody species densities of the Atriplex/Grass Reference Area at the Sunnyside Cogeneration Facility (1999).

	NUMBER/ACRE
Atriplex canescens	14.41
Atriplex confertifolia	1556.24
Brickellia microphylla	28.82
Chrysothamnus nauseosus	43.23
Gutierrezia sarothrae	28.82
Juniperus osteosperma	57.64
TOTAL	1729.15

TABLE 7: Statistical summary sheet for the reclaimed road and reference areas at the Sunnyside Cogeneration Facility (1999).

RECLAIMED ROAD			
Total Living Cover*	$\bar{x}$=45.25	s=12.50	n=40
Density	$\bar{x}$=4796.93	s=3724.94	n=40
REFERENCE AREA			
Total Living Cover*	$\bar{x}$=36.67	s=10.75	n=30
Density	$\bar{x}$=1729.15	s=1166.29	n=30
STATISTICAL ANALYSES			
Total Living Cover	t=3.014	df=68	SL=p<.005
Density	t=4.347	df=68	SL=p<.005

$\bar{x}$= sample mean, s = sample standard deviation, n = sample size,
NS = nonsignificant, t = Student's t-value, df = degrees of freedom,
SL = significance level, p = probability level

FIGURE 1: Total living cover comparisons for the Reclaimed Road at the Sunnyside Cogeneration Plant (1996, 1997, 1999).

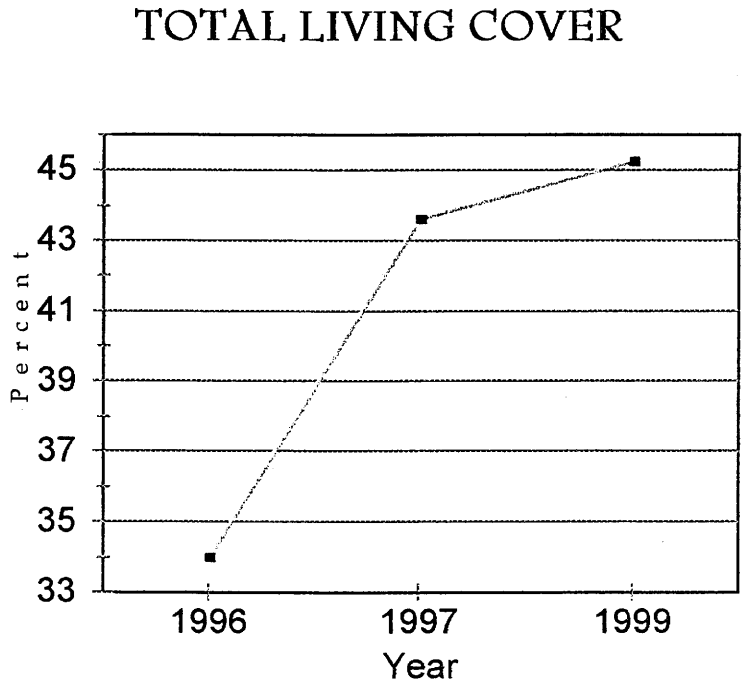


FIGURE 2: Composition comparisons for the Reclaimed Road at the Sunnyside Cogeneration Plant (1996, 1997, 1999).

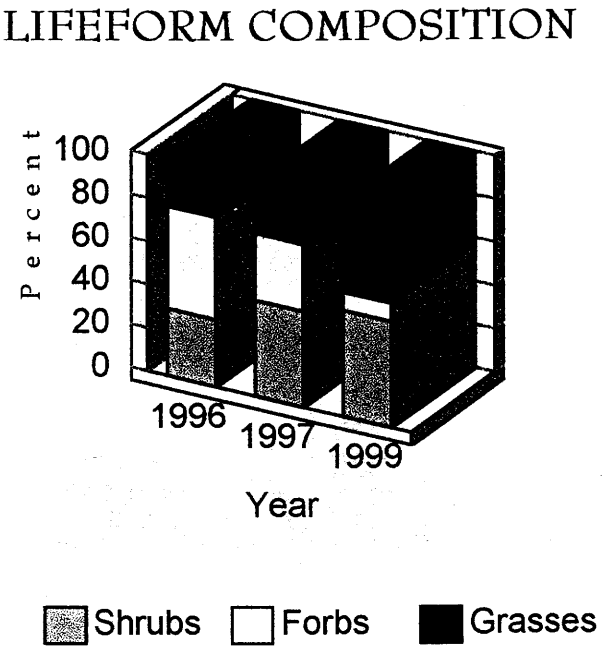


FIGURE 3: Woody species density comparisons for the Reclaimed Road at the Sunnyside Cogeneration Plant (1996, 1997, 1999).

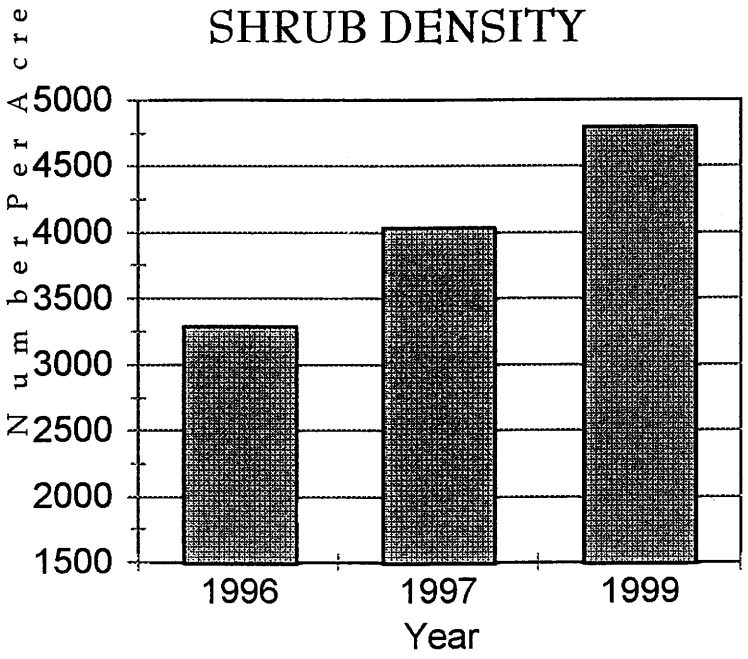
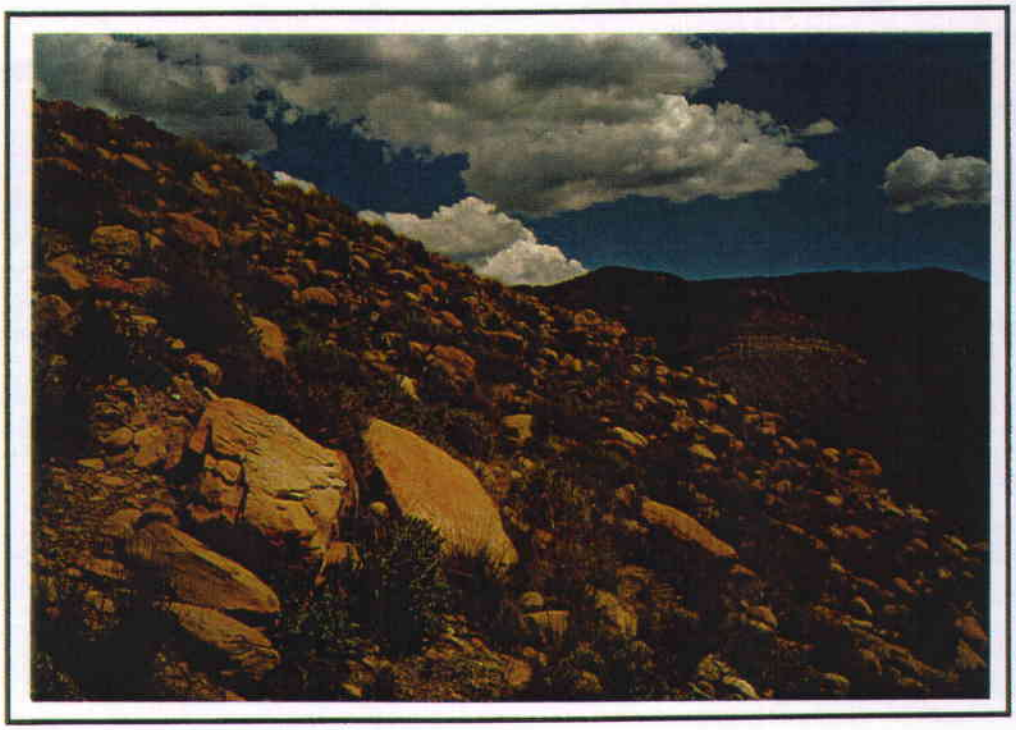


FIGURE 4: Color photographs of the study areas.

Reclaimed Road

Reference Area



SUNNYSIDE COGENERATION PLANT
Reclaimed Road
Atriplex/Grass
Exposure: S
Slope: 32 deg
Sample Date: 18 Aug 1999

	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
TREES & SHRUBS								
Atriplex canescens	0.00	5.00	5.00	0.00	20.00	30.00	0.00	0.00
Atriplex confertifolia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Atriplex gardneri	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ceratoides lanata	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chrysothamnus nauseosus albicaulis	7.00	5.00	10.00	25.00	5.00	10.00	10.00	30.00
Chrysothamnus nauseosus consimilis	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00
FORBS								
Machaeranthera canescens	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Malcomia africana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medicaga sativa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Melilotus officinalis	0.00	5.00	0.00	0.00	0.00	0.00	0.00	2.00
Salsola pestifer	0.00	0.00	0.00	0.00	0.00	0.00	10.00	3.00
Sisymbrium altissimum	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
Sphaeralcea grossulariifolia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRASSES								
Bromus tectorum	5.00	0.00	25.00	0.00	10.00	5.00	10.00	0.00
Elymus lanceolatus	13.00	10.00	0.00	0.00	5.00	0.00	0.00	0.00
Elymus salinus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elymus smithii	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00
[illegible] comata	7.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
[illegible]a hymenoides	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00
COVER								
Total Living Cover	40.00	40.00	50.00	35.00	40.00	50.00	30.00	35.00
Litter	15.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Bareground	15.00	30.00	25.00	30.00	10.00	30.00	25.00	25.00
Rock	30.00	20.00	15.00	25.00	40.00	10.00	35.00	30.00
% COMPOSITION								
Shrubs	37.50	25.00	50.00	71.43	62.50	80.00	33.33	85.71
Forbs	0.00	37.50	0.00	0.00	0.00	0.00	33.33	14.29
Grasses	62.50	37.50	50.00	28.57	37.50	20.00	33.33	0.00

9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00
0.00	0.00	0.00	20.00	35.00	50.00	35.00	5.00	25.00	8.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
0.00	20.00	5.00	10.00	15.00	20.00	0.00	20.00	15.00	0.00	0.00
0.00	10.00	15.00	20.00	0.00	0.00	10.00	5.00	10.00	0.00	10.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	25.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	5.00	0.00	10.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00
50.00	65.00	45.00	65.00	50.00	70.00	45.00	35.00	55.00	35.00	40.00
15.00	15.00	10.00	10.00	10.00	10.00	5.00	10.00	25.00	5.00	10.00
15.00	15.00	10.00	15.00	30.00	10.00	10.00	50.00	10.00	10.00	40.00
20.00	5.00	35.00	10.00	10.00	10.00	40.00	5.00	10.00	50.00	10.00
90.00	30.77	44.44	30.77	70.00	71.43	77.78	14.29	45.45	22.86	7.50
0.00	15.38	11.11	7.69	0.00	0.00	0.00	14.29	0.00	5.71	5.00
10.00	53.85	44.44	61.54	30.00	28.57	22.22	71.43	54.55	71.43	87.50

20.00	21.00	22.00	23.00	24.00	25.00	26.00	27.00	28.00	29.00	30.00
15.00	5.00	25.00	0.00	10.00	60.00	45.00	15.00	0.00	0.00	25.00
10.00	0.00	0.00	0.00	5.00	0.00	0.00	20.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	25.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	5.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00
0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	15.00	8.00	0.00	10.00	0.00	0.00	0.00	10.00	0.00
5.00	10.00	0.00	5.00	5.00	10.00	5.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	30.00	0.00	5.00	0.00	0.00	0.00	0.00
5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	5.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	25.00	0.00
45.00	35.00	45.00	25.00	55.00	80.00	55.00	65.00	40.00	45.00	40.00
5.00	10.00	5.00	5.00	10.00	5.00	5.00	10.00	10.00	10.00	10.00
30.00	10.00	10.00	60.00	25.00	5.00	10.00	15.00	15.00	35.00	10.00
20.00	45.00	40.00	10.00	10.00	10.00	30.00	10.00	35.00	10.00	40.00
55.56	14.29	55.56	0.00	36.36	75.00	81.82	69.23	62.50	0.00	100.00
0.00	28.57	0.00	48.00	0.00	0.00	0.00	0.00	37.50	22.22	0.00
44.44	57.14	44.44	52.00	63.64	25.00	18.18	30.77	0.00	77.78	0.00

31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	Mean
0.00	5.00	0.00	5.00	0.00	25.00	5.00	5.00	0.00	25.00	12.70
15.00	25.00	0.00	0.00	0.00	0.00	8.00	10.00	10.00	0.00	2.65
20.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63
5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.30
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	8.00	0.00	0.83
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.48
0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.58
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63
0.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.58
0.00	8.00	0.00	10.00	30.00	0.00	0.00	0.00	0.00	0.00	6.28
25.00	10.00	25.00	0.00	5.00	0.00	0.00	5.00	20.00	10.00	6.20
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
0.00	0.00	0.00	5.00	0.00	5.00	15.00	15.00	0.00	0.00	3.38
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
65.00	50.00	25.00	45.00	50.00	30.00	30.00	35.00	40.00	35.00	45.25
5.00	5.00	5.00	10.00	10.00	5.00	10.00	10.00	5.00	5.00	9.13
10.00	10.00	55.00	10.00	30.00	5.00	10.00	5.00	10.00	5.00	19.50
20.00	35.00	15.00	35.00	10.00	60.00	50.00	50.00	45.00	55.00	26.13
61.54	60.00	0.00	66.67	0.00	83.33	43.33	42.86	25.00	71.43	48.88
0.00	4.00	0.00	0.00	30.00	0.00	6.67	0.00	25.00	0.00	8.66
38.46	36.00	100.00	33.33	70.00	16.67	50.00	57.14	50.00	28.57	42.46

SUNNYSIDE COGENERATION PLANT
Reclaimed Road
Atriplex/Grass
Exposure: S
Slope: 32 deg
Sample Date: 18 Aug 1999

SDev	Freq	
		TREES & SHRUBS
15.62	62.50	Atriplex canescens
5.85	22.50	Atriplex confertifolia
6.37	15.00	Atriplex gardneri
2.29	7.50	Ceratoides lanata
9.53	27.50	Chrysothamnus nauseosus albicaulis
2.18	5.00	Chrysothamnus nauseosus consimilis
		FORBS
2.56	10.00	Machaeranthera canescens
0.83	5.00	Malcomia africana
0.78	2.50	Medicaga sativa
1.76	10.00	Melilotus officinalis
1.91	10.00	Salsola pestifer
2.78	5.00	Sisymbrium altissimum
1.39	17.50	Sphaeralcea grossulariifolia
		GRASSES
8.11	47.50	Bromus tectorum
7.08	57.50	Elymus lanceolatus
1.56	2.50	Elymus salinus
7.61	22.50	Elymus smithii
1.81	12.50	Stipa comata
4.72	22.50	Stipa hymenoides
		COVER
12.50		Total Living Cover
3.85		Litter
13.77		Bareground
15.83		Rock
		% COMPOSITION
27.67		Shrubs
13.24		Forbs
23.07		Grasses

SUNNYSIDE COGENERATION PLANT
Reference Area
Atriplex/Grass
Exposure: SW
[redacted]: 38 deg
[redacted]le Date: 18 Aug 1999

	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00
TREES & SHRUBS									
Atriplex confertifolia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	40.00
FORBS									
GRASSES									
Bromus tectorum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
Elymus salinus	30.00	25.00	20.00	30.00	40.00	55.00	25.00	5.00	10.00
Hilaria jamesii	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stipa hymenoides	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
COVER									
Total Living Cover	30.00	25.00	20.00	30.00	40.00	55.00	25.00	20.00	50.00
Litter	5.00	5.00	5.00	10.00	10.00	10.00	10.00	15.00	15.00
Bareground	45.00	10.00	5.00	5.00	10.00	5.00	10.00	5.00	5.00
[redacted]	20.00	60.00	70.00	55.00	40.00	30.00	55.00	60.00	30.00
% COMPOSITION									
Shrubs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	80.00
Forbs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grasses	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00	20.00

10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00
45.00	8.00	0.00	30.00	0.00	0.00	15.00	20.00	12.00	5.00	0.00
0.00	5.00	0.00	0.00	0.00	5.00	0.00	5.00	0.00	0.00	0.00
0.00	0.00	40.00	5.00	35.00	20.00	10.00	0.00	13.00	40.00	35.00
0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	7.00	0.00	0.00	0.00	0.00	15.00	10.00	0.00	0.00	0.00
50.00	50.00	40.00	35.00	35.00	25.00	40.00	35.00	25.00	45.00	35.00
30.00	5.00	10.00	5.00	10.00	5.00	10.00	5.00	5.00	10.00	10.00
5.00	5.00	5.00	35.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
15.00	40.00	45.00	25.00	50.00	65.00	45.00	55.00	65.00	40.00	50.00
90.00	16.00	0.00	85.71	0.00	0.00	37.50	57.14	48.00	11.11	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	84.00	100.00	14.29	100.00	100.00	62.50	42.86	52.00	88.89	100.00

21.00	22.00	23.00	24.00	25.00	26.00	27.00	28.00	29.00	30.00	Mean
20.00	5.00	15.00	20.00	0.00	0.00	25.00	20.00	10.00	0.00	9.83
0.00	0.00	0.00	20.00	0.00	0.00	10.00	0.00	0.00	0.00	1.67
30.00	20.00	40.00	5.00	20.00	25.00	0.00	25.00	20.00	35.00	21.93
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	10.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	2.23
50.00	35.00	55.00	45.00	20.00	25.00	50.00	45.00	30.00	35.00	36.67
10.00	10.00	10.00	10.00	5.00	5.00	10.00	15.00	5.00	5.00	9.17
10.00	5.00	5.00	10.00	5.00	5.00	5.00	5.00	5.00	10.00	8.33
30.00	50.00	30.00	35.00	70.00	65.00	35.00	35.00	60.00	50.00	45.83
40.00	14.29	27.27	44.44	0.00	0.00	50.00	44.44	33.33	0.00	23.47
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	85.71	72.73	55.56	100.00	100.00	50.00	55.56	66.67	100.00	76.53

SUNNYSIDE COGENERATION PLANT
Reference Area
Atriplex/Grass
Exposure: SW
Slope: 38 deg
Sample Date: 18 Aug 1999

SDev	Freq	
		TREES & SHRUBS
12.49	53.33	Atriplex confertifolia
		FORBS
		GRASSES
4.15	20.00	Bromus tectorum
14.51	86.67	Elymus salinus
5.39	6.67	Hilaria jamesii
4.47	23.33	Stipa hymenoides
		COVER
10.75		Total Living Cover
5.01		Litter
8.79		Bareground
14.95		Rock
		% COMPOSITION
27.93		Shrubs
0.00		Forbs
27.93		Grasses

OCRR from top of South Embankment of East Slurry Cell 03/17/99

Old Coarse Refuse Road 07/30/99

EXHIBIT B-2-a

Old Coarse Refuse Road 07/30/99

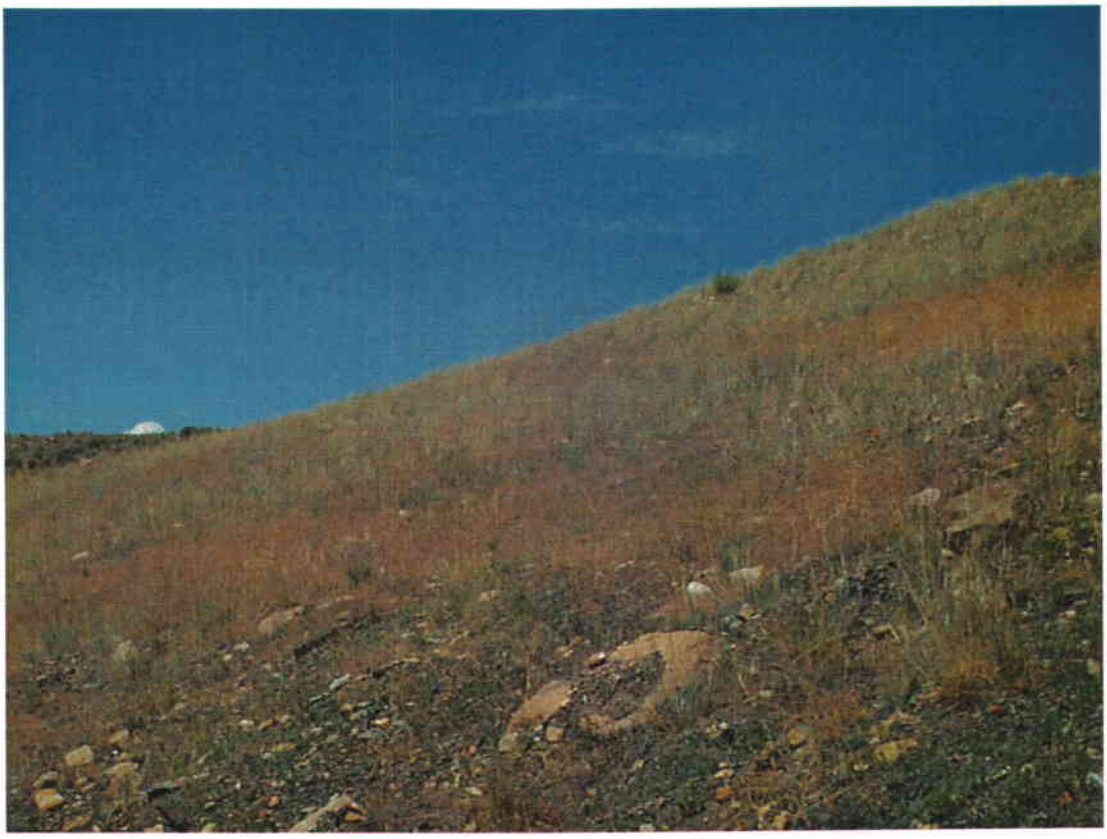
Old Coarse Refuse Road 07/30/99

EXHIBIT B-2-b

Old Coarse Refuse Road 12/22/99

South Embankment of East Slurry Cell 03/17/99

South Embankment of East Slurry Cell 03/17/99



South Embankment of East Slurry Cell 07/30/99

EXHIBIT B-2-d

South Embankment of East Slurry Cell 07/30/99

Revegetated Third and Fourth Lifts of Refuse Pile 12/22/99

EXHIBIT B-2-e

Storage Area #1 Topsoil Pile 07/30/99

East Embankment of East Slurry Cell 03/17/99

APPENDIX B-3
SOIL SAMPLING
EXCESS SPOIL DISPOSAL AREAS #1 AND #2

SUNNYSIDE COGENERATION ASSOCIATES - SPOILS AREA SAMPLES - DECEMBER 1999

Sample Site	Spoil #1 E	Spoile #1 C	Spoils #1 W	Spoils #2 C North	Spoils #2 C South
Lab No.	72-00758-1	72-00759-1	72-00760-1	72-00761-1	72-00762-1
Depths					
pH	7.36	6.91	7.24	6.97	7.0
EC (mmhos/cm @ 25 °C)	2.5	12.2	4.74	2.52	2.78
Saturation (%)	28.2	36.6	33.7	28.2	31.9
Calcium (meq/L)	12.0	21.2	24.2	11.2	16.3
Magnesium (meq/L)	12.4	273	40.6	13.4	14.5
Sodium (meq/L)	5.26	10.8	9.43	7.43	7.83
SAR	1.5	0.59	1.65	2.11	1.99
Sand (%)	82	82	80	78	80
Silt (%)	8	6	8	12	8
Clay (%)	10	12	12	10	12
Texture Class	Loamy Sand	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
Total Sulfur (%)	1.12	1.74	1.19	1.13	0.57
T.S. AP (t/1000t)	35.0	54.3	17.1	35.3	17.8
Neut. Pot. (t/1000t)	38.3	37.4	66.4	86.4	75.8
T.S. ABP (t/1000t)	53.30	-16.9	29.2	51.0	57.9
Nitrate- Nitrogen (ppm)	4.25	86.2	37.6	1.53	1.28
Boron (ppm)	1.66	10.2*	2.16	1.18	1.44
Selenium (ppm)	0.04	0.21	0.04	0.02	0.05
Total Organic Matter (%)					
Carbonates	8.83	3.7	6.64	8.64	7.58

Excess Spoil Area Samples

Overburden Evaluation for Vegetative Root Zone					
Parameters	**Sample Site**				
	Spoils #1 E	Spoils #1 C	Spoils #1 W	Spoils #2 C North	Spoils #2 C South
pH	Good	Good	Good	Good	Good
Ec mmhos/cm @ 25 °C	Good	Poor	Good	Fair	Fair
Saturation %	Good	Good	Good	Good	Good
Texture	Fair	Good	Good	Good	Good
SAR	Good	Good	Fair	Good	Good
Selenium	Good	Unacceptable	Good	Good	Good
Boron	Good	Unacceptable	Good	Good	Good
Acid / Base Potential	Good	Unacceptable	Good	Good	Good

Parameters	Good	Fair	Poor	Unacceptable
pH	6.1 to 8.2	5.1 to 6.1 8.2 to 8.4	4.5 to 5.0 8.5 to 9.0	< 4.5 > 9.0
Ec mmhos/cm @ 25 °C	0 to 2	2 to 8	8 to 15	> 15
Saturation %	25% to 85%		< 25% > 80%	
Texture	sl, l, sil, scl, vfsl, fsl	c, sicl, sc, ls, lfs	sic, s, sc, c, cos, fs, vfs	g, vcos
SAR	0 to 4	5 to 10	10 to 12 fine texture 10 to 15 coarse texture	12 fine texture 15 coarse texture
Selenium	< 0.1 mg/Kg			> 0.1 mg/Kg
Boron	< 5.0 mg/Kg			> 5.0 mg/Kg
Acid / Base Potential	> -5 tons $CaCO_3$ / 1,000 tons material			< -5 tons $CaCO_3$ / 1,000 tons material

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)
Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80238
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID: SPOILS #1 E

Kind of sample SOIL

Sample taken by SUNNYSIDE COGENERATION FAC

Date received December 28, 1999

Analysis report no. 72-00758-1

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	99.70	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	5.73	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	0.96	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.26	%
Total Organic Carbon	EPA 3.2.14	98.8	%

Post-it® Fax Note 7671 | Date 3-8 | # of pages ▶ 25
To Rusty Nete | From Laura
Co./Dept. | Co. CTE Denver
Phone # | Phone #
Fax # | Fax #

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Esequiel Jaco

Denver Laboratory

MEMBER ACIL

MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

CONDITIONS ON REVERSE

SINCE 1908

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 EASTorthing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00758-1			8.83	58.8	0.04	0.07	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MAR. -08' 00 (WED) 10:23 COMMERCIAL TEST-LAB TEL:303 373 4791 P. 003

SINCE 1925

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SGS - Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 EASTorthing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00758-1			1.12	35.0	88.3	53.3				

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MAR.-08' 00(WED) 10:23 COMMERCIAL TEST-LAB TEL:303 373 4791 P. 004

SINCE 1908

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

MAR. -08' 00 (WED) 10:23 COMMERCIAL TEST-LAB TEL:303 373 4791 P. 005

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 EASTorthing :
Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00758-1			4.25	1.66		0.04	0.07	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9305

SINCE 1908®

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

MAR. -08' 00 (WED) 10:22 COMMERCIAL TEST-LAB TEL:303 373 4791 P. 002

March 8, 2000

SUNNYSIDE COGENERATION

SOIL

Location : SPOILS #1 EASTorthing :

Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00758-1		7.36	2.50	30.2	12.0	12.4	5.26	1.50	82	8	10	LOAMY SAND	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-0306
SINCE 1908
SGS Member of the SGS Group (Société Générale de Surveillance)
Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID: SPOILS #1 C

Kind of sample SOIL

Sample taken by SUNNYSIDE COGENERATION FAC

Date received December 28, 1999

Analysis report no. 72-00759-1

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	97.96	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	8.75	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	0.07	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.18	%
Total Organic Carbon	EPA 3.2.14	93.3	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 007 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-08'00(WED) 10:23

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SEOILS #1 CENTER Northing :
Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00759-1		6.91	12.2*	36.6	21.2	273.	10.8	0.55	82	6	12	SANDY LOAM	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 008 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-08'00(WED) 10:24

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 CENTER Northing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00759-1			3.7%	93.3	0.21	0.31	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 009

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR. -08' 00 (WED) 10:24

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 CENTER Northing :

Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP. t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00759-1			1.74	54.3	37.4	-16.9	0.60	18.7	18.6	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Esequiel Jaco

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 010 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR. -08' 00 (WE) 10:24

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 CENTER Northing :
Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00759-1			86.2*	10.2*		0.21	0.31	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/
Soil Material [illegible] Of Agric[illegible]

COMMERCIAL TESTING & ENGINEERING CO.

Esequiel Jaco

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-8300 FAX: 630-953-8306
SINCE 1908
SGS Member of the SGS Group (Société Générale de Surveillance)
Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID: SPOILS #1 W

Kind of sample SOIL

Sample taken by SUNNYSIDE COGENERATION FAC

Date received December 28, 1999

Analysis report no. 72-00760-1

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-P,D-98	99.08	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	8.58	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	1.17	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.22	%
Total Organic Carbon	EPA 3.2.14	96.6	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

SINCE 1908®

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 012
TEL:303 373 4791
COMMERCIAL TEST-LAB
MAR.-08'00(WED) 10:24

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 WESTorthing :
Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00760-1		7.24	4.74	33.7	24.2	40.6	9.43	1.65	80	8	12	SANDY LOAM	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guidelins No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/Spoil Material, University Of Wyoming, [illegible] March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 013

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR.-08'00(WED) 10:25

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 WESTorthing :

Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00760-1			6.64	96.5	0.04	0.07	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ezequiel Jaco

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 014 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-08'00(WED) 10:25

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOILS #1 WESTorthing :

Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP. t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00760-1			1.19	37.1	66.4	29.2				

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University of Wyoming, College of Agriculture, Bulletin MP-82, Mar[illegible] 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908®

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 015 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-08'00(WED) 10:25

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SEGILS #1 WESTorthing :
Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00760-1			27.6	2.15		0.04	0.07	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guidaline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University of Wyoming, College of

COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-0300 FAX: 630-953-0306

SINCE 1908®

SGS Member of the SGS Group (Société Générale de Surveillance)
Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID: SPOIL PILE #2 CENTER NORTH

Kind of sample SOIL

Sample taken by SUNNYSIDE COGENERATION FAC

Date received January 11, 2000

Analysis report no. 72-00761-1

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	89.73	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	11.6	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	1.82	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.22	%
Total Organic Carbon	EPA 3.2.14	99.3	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 017

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR. -08' 00 (WED) 10:25

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 CE Northing :

Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00761-1		6.97	2.52	28.2	11.2	11.4	7.43	2.11	78	12	10	SANDY LOAM	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ingrid Jaco

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 018 TEL:303 373 4791 COMMERCIAL TEST-LAB MAR.-08'00(WED) 10:26

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILS #2 CE Northing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00761-1			8.64	39.3	0.02	0.04	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-8308

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 019

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR.-08'00(WED) 10:26

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 CR Northing :

Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP. t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00761-1			1.13	35.3	86.4	51.0				

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

E. Miguel Jarvis

Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 020

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR.-08'00(WED) 10:26

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 C3 Northing :

Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00761-1			1.53	1.18		0.02	0.04	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guidaline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

SINCE 1908

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1010 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

SGS Member of the SGS Group (Société Générale de Surveillance)

Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE OPERATIONS
P.O. BOX 159
#1 POWER PLANT ROAD
SUNNYSIDE UT 84539

Sample identification by
SUNNYSIDE COGENERATION FAC

SAMPLE ID: SPOIL PILE #2 CENTER SOUTH

Kind of sample SOIL

Sample taken by SUNNYSIDE COGENERATION FAC

Date received January 11, 2000

Analysis report no. 72-00762-1

PARAMETER	METHOD	RESULTS	UNITS
Solids	CLPSOW390, PART-F,D-98	99.67	%
Cation Exchange Capacity (CEC)	USDA No. 60 (19)	10.6	meq/100g
Exchangeable Sodium Percent (ESP)	USDA No. 60 (10B)(calc)	1.65	%
Nitrogen, total Kjeldahl	M3512-TKN by Block Digester	0.24	%
Total Organic Carbon	EPA 3.2.14	99.1	%

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

SINCE 1908®

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 CE Northing :
Surface Elevation : Easting :

Lab No.	Depths	pH	EC mmhos/cm @ 25°C	Saturation %	Calcium meq/l	Magnesium meq/l	Sodium meq/l	SAR	Particle Size Sand %	Silt %	Clay %	Texture Class	Notes
72-00762-1		7.00	2.78	31.9	16.3	14.5	7.83	1.99	80	8	12	SANDY LOAM	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, [illegible] March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ezequiel Jorco

Denver Laboratory

P. 023

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-8300 FAX: 708-953-8306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

TEL:303 373 4791

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 CR Northing :
Surface Elevation : Easting :

Lab No.	Depths	Total Organic Matter %	Carbonates	Coarse Fragments	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00762-1			7.58	99.1	0.05	0.06	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guidaline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ezequiel Jaco
Denver Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #2 CH Northing :

Surface Elevation : Easting :

Lab No.	Depths	Total Organic Carbon %	Total Sulfur %	T.S. AP t/1000t	Neut. Pot. t/1000t	T.S. ABP. t/1000t	Pyr+Org Sulfur %	Pyr+Org AP t/1000t	Pyr+Org ABP t/1000t	Notes
72-00762-1			0.57	17.8	75.8	57.9				

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ezequiel Jorco

Denver Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

F-467
Original Watermarked For Your Protection

TERMS A[illegible]NDITIONS ON REVERSE

MAR.-08'00(WED) 10:27 COMMERCIAL TEST-LAB TEL:303 373 4791

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS, B-200, DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

P. 025

TEL:303 373 4791

COMMERCIAL TEST-LAB

MAR.-08'00(WED) 10:27

March 8, 2000

SUNNYSIDE COGENERATION
SOIL

Location : SPOIL PILE #1 CE Northing :

Surface Elevation : Easting :

Lab No.	Depths	Arsenic ppm	Nitrate-Nitrogen ppm	Boron ppm	Molybdenum ppm	Selenium ppm	AB-DTPA Selenium ppm	Notes
72-00762-1			1.28	1.44		0.05	0.06	

Method Ref.: Wyoming D.E.Q., Land Quality Division Guideline No. 1, Topsoil And Overburden Rules Update/8-94

Standard Operating Procedures For The Sampling And Analysis Of Selenium In Soil And Overburden/ Spoil Material, University Of Wyoming, College Of Agriculture, Bulletin MP-82, March 1994.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

APPENDIX B-4
WATER MONITORING

Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (801) 888-4476 • Fax (801) 888-2538

April 9, 1999

Division of Oil, Gas & Mining
STATE OF UTAH
c/o College of Eastern Utah
451 East 400 North
Price, Utah 84501

ATTN: Mr. Bill Malencik

Subject: Quarterly Sampling Report
Monitoring Period: January, February, & March 1999
DOGM Permit Boundary Water Quality Monitoring Plan
Sunnyside Cogeneration Associates Power Plant

Dear Bill:

This letter report summarizes the analytical results and field activities concerning the DOGM Permit Water Quality Monitoring Plan at the Sunnyside Cogeneration Associates Power Plant. The baseline quarterly period covered is January, February, and March 1999. I collected the quarterly water-samples, monthly field parameters, and performed visual inspections of the DOGM permit monitoring locations on March 2, 1999.

Immediately after collection, the water samples were preserved (when necessary), placed on ice in a cooler, and delivered under chain of custody documentation to Chemtech / Ford Laboratory.

The required field parameters for each monitoring location were measured on March 2, 1999, and are presented in Table 2. None of the DOGM UPDES permit outfalls discharged effluent during the monitoring period. Also, coarse refuse source (CRS) monitoring location was not discharging during this period; no sample was taken.

If you have any questions or comments, please contact me at (435) 888-4476.

Sincerely,

Rusty Netz

Rusty Netz
Environmental Coordinator

RN/lls

Enclosures:

Table 1:	Compliance Monitoring Locations
Table 2:	Field Parameter Data
Table 3:	Quarterly Compliance Sampling Results, 1st Quarter, 1999
Attachment A:	Field Data Sheets (UPDES)
Attachment B:	Analytical Laboratory Report

c.c. Mr. Robert Evans, NRG Energy, Inc.
Mr. Douglas Burnham, Babcock & Wilcox
Mr. Ken Wyatt, Division of Oil, Gas & Mining
Mr. Gordon Strom, SOA
SCA Plant file

Table 1

TABLE 1

Sunnyside Cogeneration Facility

Sunnyside, Utah

Compliance Monitoring Locations

DOGM Permit Boundary Water Quality Monitoring Plan

DOGM UPDES Monitoring Locations

Outfall 004, Clear Water Pond

Outfall 007, Rail Cut Pond

Outfall 008, Old Coarse Refuse Pond

Outfall 009, Pasture Pond

Outfall 012, Coarse RefuseToe

Outfall 014, Coal Pile Runoff Pond

Outfall 016, Borrow Area Pond

DOGM Baseline Water Quality Monitoring Locations

ICE-1, Icelander Creek

F-2, Whitmore Springs

CRS, Coarse Refuse Seep-Source

CRB, Coarse Refuse Seep-Boundary

WELL-1, Dragerton Well

B-6, Borehole B-6

Table 2

TABLE 2

Sunnyside Cogeneration Facility
Sunnyside, Utah

Field Parameter Data
DOGM Permit Boundry Water Quality Monitoring Plan
Monitoring Period: First Quarter 1999
Samples taken March 2, 1999

Monitoring Location	Location I.D.	Temp. (C)	pH (su)	SC (umhos)	Dissolved Oxygen (mg/l)	Flow Rate (gpm)	Flow method
Icelander Creek	ICE-1	1.3	8.69	1730	8.6	20	2
Columbia Dugway Spring	F-2	6.4	8.5	1820	8.2	30	2
Coarse Refuse Seep Source	CRS	NA	NA	NA	NA	NA	NA
Coarse Refuse Seep Boundary	CRB	2.6	8.23	4810	10.8	24	2
Dragerton Well	Well-1	10.1	7.45	1110	6.9	225	4
Borehole B-6	B-6	NW	NW	NW	NW	NW	NW

Notes:
na - no flow
NW- no water present
nd - data is not available due to lack of discharge
1- Flow rates were measured using a weir.
2 - Flow rates were measured using a calibrated container and stopwatch method.
3 - Flow rates were measured using the floating debris method.
4 - Flow rates were measured using a meter

Table 3

TABLE 3

Sunnyside Cogeneration Facility

Sunnyside, Utah
First Quarter 1999
Quarterly Compliance Sampling Results

DOGM Permit Boundary Water Quality Monitoring Plan
Sampling Date: March 2, 1999

	Analytical Parameters									
	Metals (mg/l)				Inorganics (mg/l)					Ions
Sample Location	Iron Total	Iron Dissolved	Manganese Total	Manganese Dissolved	Electrical Conductivity	Oil & Grease	Settleable Solids	Dissolved Solids	Suspended Solids	C - A Balance
ICE-1	0.11	0.03	<0.01	<0.01	1730	<5	<0.1	984	10	14.99/16.96
CRB	<0.02	<0.02	<0.01	<0.01	4810	<5	<0.1	4,710	2	55.70/60.52
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	0.05	0.02	0.01	<0.01	1820	<5	<0.1	1,030	<1	16.19/18.23
WELL-1	0.10	0.05	<0.01	<0.01	1110	<5	<0.1	872	<1	13.52/15.27
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

	Analytical Parameters									
	Anions (mg/l)					Cations (mg/l)				
Sample Location	Bicarbonate Alkalinity	Carbonate Alkalinity	Total Alkalinity	Chloride as Cl	Sulfate as SO4	Calcium as Ca (D)	Hardness as CaCO3	Magnesium as Mg (D)	Potassium as K	Sodium as Na
ICE-1	531	<1	435	30	356	60	442	71	2.5	140
CRB	389	<1	319	126	2430	380	1960	240	18	380
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	556	<1	456	33	393	72	480	73	2.6	150
WELL-1	513	<1	421	19	304	60	368	53	2.7	140
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.
* - Higher detection limit reported due to interferences present in the sample
na - not applicable
NW - no water present
ND - data is not available due to lack of discharge

Attachment "A"

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: CLEAR WATER POND
OUTFALL NUMBER: 004

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0757	R. NETZ	cold/sunny	NO							NO	Damp basin
1/29/99	1300	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1115	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	912	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1400	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	955	R. NETZ	cool/clear	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	RAIL CUT POND
OUTFALL NUMBER:	007

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
											NO	damp basin
1/11/99	0926	R. NETZ	cold/sunny	NO							NO	1" snow
1/29/99	1439	R. NETZ	snowy	NO							NO	DAMP
2/13/99	1439	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1120	R. NETZ	cold/sunny	NO							NO	Basin dry
3/13/99	1655	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1155	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: **OLD COARSE REFUSE BASIN**

OUTFALL NUMBER: **008**

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
											NO	damp Basin
1/11/99	1009	R. NETZ	cold/sunny	NO							NO	1" snow
1/29/99	1512	R. NETZ	snowy	NO							NO	DAMP
2/13/99	1145	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	925	R. NETZ	cold/sunny	NO							NO	Basin dry
3/13/99	1425	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1015	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: PASTURE POND
OUTFALL NUMBER: 009

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1021	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1527	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1330	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	955	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1438	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1030	R. NETZ	cool/clear	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: COARSE REFUSE TOE POND

OUTFALL NUMBER: 012

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
											NO	Muddy basin
1/11/99	0928	R. NETZ	cold/sunny	NO							NO	1" snow
1/29/99	1446	R. NETZ	snowy	NO							NO	DAMP
2/13/99	1430	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1110	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1645	R. NETZ	cool/clear	NO							NO	DRY
3/26/99	1150	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: COAL PILE SED. POND
OUTFALL NUMBER: 014

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1123	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1331	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1338	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1015	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1445	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1036	R. NETZ	cool/clear	NO							NO	DRY BASIN

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: BORROW AREA BASIN
OUTFALL NUMBER: 016

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1102	R. NETZ	cold/sunny	NO							NO	DAMP
1/29/99	1206	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1125	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	920	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1415	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1010	R. NETZ	cool/clear	NO							NO	DRY BASIN

Attachment "B"

CHEMTECH-FORD

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001738
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:15
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	531	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	435	1	3/ 8/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	30	1	3/ 5/99 11:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	442	0.2	3/17/99 13:54	CAL	RIF
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/ 3/99 9:45	EPA 160.5	LPS
Sulfate, mg/L	356	167	3/ 8/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	984	10	3/ 4/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	10	1	3/ 3/99 9:50	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	64	0.5	3/ 4/99 10:02	EPA 200.7	EG
Calcium (D), as Ca, mg/L	60	0.5	3/ 4/99 10:02	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.11	0.02	3/ 4/99 10:02	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	3/ 4/99 10:02	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	74	0.2	3/ 4/99 10:02	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY, UT 84107-6903
801 262-7299 PHONE
801 262-7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001738
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:15
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	71	0.2	3/ 4/99 10:02	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Potassium (D), as K, mg/L	2.5	0.2	3/ 4/99 10:02	EPA 200.7	EG
Sodium (D), as Na, mg/L	140	0.2	3/ 4/99 10:02	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/ 4/99 9:45	SM18 5520B	LC
Cation Sum, meq/L	14.99				
Anion Sum, meq/L	16.96				
% Cation/Anion Difference,	6.16				CSM
Temperature, Receiving, C	2.0		3/ 3/99 9:00		

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6935
801 262 7299 PHONE
801 262 7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001738
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:15
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample received on ice.
The cation/anion balance difference is greater than normally accepted. The analytes have been verified by reanalysis.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6906
801 262 7299 PHONE
801 262 7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001737
Project: BASELINE
Sample Desc: CRB
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 9:45
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	389	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	319	1	3/ 8/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	126	1	3/ 5/99 11:00	EPA 325.3	TSM
Hardness, (calc), mg/L CaCO3	1,960	25	3/11/99 8:30	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/ 3/99 9:45	EPA 160.5	LPS
Sulfate, mg/L	2,430	1000	3/ 8/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,710	10	3/ 4/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	2	1	3/ 3/99 9:50	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	390	0.5	3/ 4/99 10:02	EPA 200.7	EG
Calcium (D), as Ca, mg/L	380	0.5	3/ 4/99 10:02	EPA 200.7	EG
Iron (T), as Fe, mg/L	< 0.02	0.02	3/ 4/99 10:02	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	3/ 4/99 10:02	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	240	0.2	3/ 4/99 10:02	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107-6905
801 262-7299 PHONE
801 262-7378 FAX

CHEMTECH-FORD

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001737
Project: BASELINE
Sample Desc: CRB
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 9:45
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	240	0.2	3/ 4/99 10:02	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Potassium (D), as K, mg/L	18	0.2	3/ 4/99 10:02	EPA 200.7	EG
Sodium (D), as Na, mg/L	380	0.2	3/ 4/99 10:02	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/ 4/99 9:45	SM18 5520B	LC
Cation Sum, meq/L	55.70				
Anion Sum, meq/L	60.52				
% Cation/Anion Difference,	4.15				
Temperature, Receiving, C	2.0		3/ 3/99 9:00		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107-6905
801 262-7299 PHONE
801 262-[illegible] FAX

CHEMTECH-FORD

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001739
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:30
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	556	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	456	1	3/ 8/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	33	1	3/ 5/99 11:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	480	0.2	3/17/99 13:54	CAL	RIF
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/ 3/99 9:45	EPA 160.5	LPS
Sulfate, mg/L	393	167	3/ 8/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,030	10	3/ 4/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	< 1	1	3/ 3/99 9:50	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	72	0.5	3/ 4/99 10:02	EPA 200.7	EG
Calcium (D), as Ca, mg/L	72	0.5	3/ 4/99 10:02	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.05	0.02	3/ 4/99 10:02	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.02	0.02	3/ 4/99 10:02	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	74	0.2	3/ 4/99 10:02	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107-5935
801 262 7299 PHONE
801 262 7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001739
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:30
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	73	0.2	3/ 4/99 10:02	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Potassium (D), as K, mg/L	2.6	0.2	3/ 4/99 10:02	EPA 200.7	EG
Sodium (D), as Na, mg/L	150	0.2	3/ 4/99 10:02	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/ 4/99 9:45	SM18 5520B	LC
Cation Sum, meq/L	16.19				
Anion Sum, meq/L	18.23				
% Cation/Anion Difference,	5.91				
Temperature, Receiving, C	2.0		3/ 3/99 9:00		CSM

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6906
801 262-7299 PHONE
801 262-7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001739
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 10:30
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample received on ice.
The cation/anion balance difference is greater than normally accepted. The analytes have been verified by reanalysis.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001740
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 11:00
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	513	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	3/ 8/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	421	1	3/ 8/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	19	1	3/ 5/99 11:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	368	0.2	3/17/99 13:54	CAL	RIF
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	3/ 3/99 9:45	EPA 160.5	LPS
Sulfate, mg/L	304	167	3/ 8/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	872	10	3/ 4/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	< 1	1	3/ 3/99 9:50	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	63	0.5	3/ 4/99 10:02	EPA 200.7	EG
Calcium (D), as Ca, mg/L	60	0.5	3/ 4/99 10:02	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.10	0.02	3/ 4/99 10:02	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.05	0.02	3/ 4/99 10:02	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	55	0.2	3/ 4/99 10:02	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6905
801 262-7299 PHONE
801 262-7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT. 84520

Group #: 28480
Lab #: 99-U001740
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 11:00
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	53	0.2	3/ 4/99 10:02	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	3/ 4/99 10:02	EPA 200.7	EG
Potassium (D), as K, mg/L	2.7	0.2	3/ 4/99 10:02	EPA 200.7	EG
Sodium (D), as Na, mg/L	140	0.2	3/ 4/99 10:02	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	3/ 4/99 9:45	SM18 5520B	LC
Cation Sum, meq/L	13.52				
Anion Sum, meq/L	15.27				
% Cation/Anion Difference,	6.10				
Temperature, Receiving, C	2.0		3/ 3/99 9:00		CSM

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 3/17/99

To: Sunnyside Cogeneration
attn: Rusty Netz
P.O. Box 10
East Carbon, UT 84520

Group #: 28480
Lab #: 99-U001740
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: GROUND WATER
Date Sampled: 3/ 2/99
Date Submitted: 3/ 3/99

Time Sampled: 11:00
Time Received: 8:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample received on ice.
The cation/anion balance difference is greater than normally accepted. The analytes have been verified by reanalysis.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD, INC.

COMPANY: SCA - Sunnyside Cogen.
ADDRESS: #1 Power Plant RD.
CITY/STATE/ZIP: Sunnyside Utah
PHONE #: 888-4476 FAX #: 888-2538
COMPANY CONTACT: Rusty Netz
PROJECT: Baseline

_____Mark 'X' for copy to DEQ Div of Drinking Water

BILLING NAME:
BILLING ADDRESS:
P.O. #:
TURNAROUND REQUIRED* Regular - By 3/10/99
*expedited turnaround subject to additional charge

Lab ID#	SAMPLE IDENTIFICATION/LOCATION	SAMPLE DATE	SAMPLE TIME	Number of Containers	MATRIX: Water: Drink., Waste, Ground (circle)	Soil / Solid (circle)	Sludge: Solid, Liquid (circle)	Oil	Solvent	Other (specify)	ANALYTES REQUESTED: Alk	Hardness ($CaCO_3$)	Bicarbonate	Carbonate	Ca (D)	Cl-	Fe (T) (D)	Mg D + D	Mg D	K D	Na D	Sulfate	Oil + Grease	TSS	TDS	Settleable	CA Balance
1737	1. CRB	2/2/99	945	3	✓			✓																		
1738	2. ICE-1	"	1015	3	✓			✓																		
1739	3. F-2	"	1030	3	✓			✓																		
1740	4. Well-1	"	1100	3	✓			✓																		
	5.																									
	6.																									
	7.																									
	8.																									
	9.																									
	10.																									

Sampled by: (print)
Sampled by: (signature)
Sample Receiving Temperature: (C) ON ICE

Special Instructions:

Sample Delivered by Courier:

	Date/Time		Date/Time
Relinquished by: (signature) Rusty Netz	2/2/99 1130	Received by (signature): M. Montgomery	2/3/99
Relinquished by: (signature)	Date/Time	Received by (signature): Carol Murphy	Date/Time 2/3/99 @ 850
Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time

CHEMTECH-FORD, INC. 6100 South Stratler (380 West) Murray, UT 84107 Phone 801-262-7299 Fax 801-262-7378

NET 30 DAYS: 1.5% PER MONTH INTEREST CHARGE (18% A.P.R.) CUSTOMER AGREES TO PAY COLLECTION COSTS AND ATTORNEY'S FEES.

WHITE: ORIGINAL YELLOW: CUSTOMER PINK: FILE

Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (801) 888-4476 • Fax (801) 888-2538

July 8,1999

Division of Oil, Gas & Mining
STATE OF UTAH
c/o College of Eastern Utah
451 East 400 North
Price, Utah 84501

ATTN: Mr. Bill Malencik

Subject: Quarterly Sampling Report
Monitoring Period: April, May, & June 1999
DOGM Permit Boundary Water Quality Monitoring Plan
Sunnyside Cogeneration Associates Power Plant

Dear Bill:

This letter report summarizes the analytical results and field activities concerning the DOGM Permit Water Quality Monitoring Plan at the Sunnyside Cogeneration Associates Power Plant. The baseline quarterly period covered is April, May, and June 1999. I collected the quarterly water-samples, monthly field parameters, and performed visual inspections of the DOGM permit monitoring locations on May 25, 1999.

Immediately after collection, the water samples were preserved (when necessary), placed on ice in a cooler, and delivered under chain of custody documentation to Chemtech / Ford Laboratory.

The required field parameters for each monitoring location were measured on May 25, 1999, and are presented in Table 2. None of the DOGM UPDES permit outfalls discharged effluent during the monitoring period. Also, coarse refuse source (CRS) monitoring location was not discharging during this period; no sample was taken.

If you have any questions or comments, please contact me at (435) 888-4476.

Sincerely,

Rusty Netz

Rusty Netz
Environmental Coordinator

RN/lls

Enclosures:

Table 1:	Compliance Monitoring Locations
Table 2:	Field Parameter Data
Table 3:	Quarterly Compliance Sampling Results, 2nd Quarter, 1999
Attachment A:	Field Data Sheets (UPDES)
Attachment B:	Analytical Laboratory Report

c.c. Mr. Robert Evans, NRG Energy, Inc.
Mr. Douglas Burnham, Babcock & Wilcox
Mr. Ken Wyatt, Division of Oil, Gas & Mining
Mr. Gordon Strom, SOA
SCA Plant file

Table 1

TABLE 1

Sunnyside Cogeneration Facility

Sunnyside, Utah

Compliance Monitoring Locations

DOGM Permit Boundary Water Quality Monitoring Plan

DOGM UPDES Monitoring Locations
Outfall 004, Clear Water Pond
Outfall 007, Rail Cut Pond
Outfall 008, Old Coarse Refuse Pond
Outfall 009, Pasture Pond
Outfall 012, Coarse RefuseToe
Outfall 014, Coal Pile Runoff Pond
Outfall 016, Borrow Area Pond

DOGM Baseline Water Quality Monitoring Locations
ICE-1, Icelander Creek
F-2, Whitmore Springs
CRS, Coarse Refuse Seep-Source
CRB, Coarse Refuse Seep-Boundary
WELL-1, Dragerton Well
B-6, Borehole B-6

TABLE 2

TABLE 2

Sunnyside Cogeneration Facility
Sunnyside, Utah

Field Parameter Data

DOGM Permit Boundry Water Quality Monitoring Plan
Monitoring Period: Second Quarter 1999
Samples taken May 25, 1999

Monitoring Location	Location I.D.	Temp. (C)	pH (su)	SC (umhos)	Dissolved Oxygen (mg/l)	Flow Rate (gpm)	Flow method
Icelander Creek	ICE-1	9	8.71	1680	9	20	2
Columbia Dugway Spring	F-2	11	8.46	1720	8.2	40	2
Coarse Refuse Seep Source	CRS	NA	NA	NA	NA	NA	NA
Coarse Refuse Seep Boundary	CRB	7.5	8.05	4700	8.8	30	2
Dragerton Well	Well-1	14.9	7.44	1190	6.5	125	4
Borehole B-6	B-6	NW	NW	NW	NW	NW	NW

Notes:
na - no flow
NW- no water present
nd - data is not available due to lack of discharge
1- Flow rates were measured using a weir.
2 - Flow rates were measured using a calibrated container and stopwatch method.
3 - Flow rates were measured using the floating debris method.
4 - Flow rates were measured using a meter

TABLE 3

TABLE 3

Sunnyside Cogeneration Facility

Sunnyside, Utah
Second Quarter 1999
Quarterly Compliance Sampling Results

DOGM Permit Boundary Water Quality Monitoring Plan
Sampling Date: May 25, 1999

	Analytical Parameters									
	Metals (mg/l)				Inorganics (mg/l)					Ions
Sample Location	Iron Total	Iron Dissolved	Manganese Total	Manganese Dissolved	Electrical Conductivity	Oil & Grease	Settleable Solids	Dissolved Solids	Suspended Solids	C - A Balance
ICE-1	0.16	0.03	<0.01	<0.01	1680	<5	<0.1	1180	6	18.26/19.45
CRB	<0.02	<0.02	0.01	0.01	4700	<5	<0.1	4610	4	58.48/65.24
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	0.15	0.04	0.02	0.02	1720	<5	<0.1	1230	6	18.59/20.07
WELL-1	0.13	0.03	<0.01	<0.01	1190	<5	<0.1	820	3	13.13/13.56
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

	Analytical Parameters									
	Anions (mg/l)					Cations (mg/l)				
Sample Location	Bicarbonate Alkalinity	Carbonate Alkalinity	Total Alkalinity	Chloride as Cl	Sulfate as SO4	Calcium as Ca (D)	Hardness as CaCO3	Magnesium as Mg (D)	Potassium as K	Sodium as Na
ICE-1	499	10	425	41	470	66	540	91	3.3	170
CRB	368	<1	302	121	2680	410	2050	250	19	390
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	546	3	453	41	474	83	578	90	3.3	160
WELL-1	496	<1	407	14	242	61	371	53	2.5	130
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.
* - Higher detection limit reported due to interferences present in the sample.
na - not applicable
NW - no water present
ND - data is not available due to lack of discharge

Attachment "A"

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	CLEAR WATER POND
OUTFALL NUMBER:	004

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0757	R. NETZ	cold/sunny	NO							NO	Damp basin
1/29/99	1300	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1115	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	912	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1400	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	955	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1050	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1340	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	920	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1439	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1340	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1337	R. NETZ	sunny	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: RAIL CUT POND
OUTFALL NUMBER: 007

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0926	R. NETZ	cold/sunny	NO							NO	damp basin
1/29/99	1439	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1439	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1120	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1655	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1155	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1330	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1535	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	830	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1645	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1018	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1420	R. NETZ	sunny	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: OLD COARSE REFUSE BASIN

OUTFALL NUMBER: 008

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
											NO	damp Basin
1/11/99	1009	R. NETZ	cold/sunny	NO							NO	1" snow
1/29/99	1512	R. NETZ	snowy	NO							NO	DAMP
2/13/99	1145	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	925	R. NETZ	cold/sunny	NO							NO	Basin dry
3/13/99	1425	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1015	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1110	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1355	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	935	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1455	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1410	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1345	R. NETZ	sunny	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: PASTURE POND
OUTFALL NUMBER: 009

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1021	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1527	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1330	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	955	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1438	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1030	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1120	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1415	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	945	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1510	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	940	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1350	R. NETZ	sunny	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: COARSE REFUSE TOE POND

OUTFALL NUMBER: 012

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0928	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1446	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1430	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1110	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1645	R. NETZ	cool/clear	NO							NO	DAMP
3/26/99	1150	R. NETZ	cool/clear	NO							NO	DRY
4/15/99	1345	R. NETZ	sunny	NO							NO	DRY
4/25/99	1525	R. NETZ	sunny	NO							NO	DRY
5/6/99	835	R. NETZ	sunny	NO							NO	DRY
5/19/99	1630	R. NETZ	sunny	NO							NO	DRY
6/10/99	1015	R. NETZ	sunny	NO							NO	DRY
6/26/99	1410	R. NETZ	sunny	NO							NO	DRY

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: COAL PILE SED. POND
OUTFALL NUMBER: 014

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1123	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1331	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1338	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1015	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1445	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1036	R. NETZ	cool/clear	NO							NO	DRY BASIN
4/15/99	1125	R. NETZ	sunny	NO							NO	DRY BASIN
4/25/99	1420	R. NETZ	sunny	NO							NO	DRY BASIN
5/6/99	949	R. NETZ	sunny	NO							NO	DRY BASIN
5/19/99	1515	R. NETZ	sunny	NO							NO	DRY BASIN
6/10/99	920	R. NETZ	sunny	NO							NO	DRY BASIN
6/26/99	1355	R. NETZ	sunny	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: BORROW AREA BASIN

OUTFALL NUMBER: 016

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1102	R. NETZ	cold/sunny	NO							NO	DAMP
1/29/99	1206	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1125	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	920	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1415	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1010	R. NETZ	cool/clear	NO							NO	DRY BASIN
4/15/99	1100	R. NETZ	sunny	NO							NO	DRY BASIN
4/25/99	1350	R. NETZ	sunny	NO							NO	DRY BASIN
5/6/99	930	R. NETZ	sunny	NO							NO	DRY BASIN
5/19/99	1445	R. NETZ	sunny	NO							NO	DRY BASIN
6/10/99	1358	R. NETZ	sunny	NO							NO	DRY BASIN
6/26/99	1334	R. NETZ	sunny	NO								

Attachment "B"

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004791
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 10:00
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	499	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	10	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	425	1	6/ 1/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	41	1	6/ 4/99 9:00	EPA 325.3	KA
Hardness, (calc), mg CaCO3/L	540	0.2	6/10/99 10:08	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/26/99 13:20	EPA 160.5	LPS
Sulfate, mg/L	470	100	6/ 9/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,180	10	5/26/99 15:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	6	1	5/26/99 13:30	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	68	0.2	5/31/99 12:05	EPA 200.7	EG
Calcium (D), as Ca, mg/L	66	0.2	5/28/99 8:11	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.16	0.02	5/31/99 12:05	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	5/28/99 8:11	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	92	0.2	5/31/99 12:05	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004791
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 10:00
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	499	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	10	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	425	1	6/ 1/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	41	1	6/ 4/99 9:00	EPA 325.3	KA
Hardness, (calc), mg CaCO3/L	540	0.2	6/10/99 10:08	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/26/99 13:20	EPA 160.5	LPS
Sulfate, mg/L	470	100	6/ 9/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,180	10	5/26/99 15:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	6	1	5/26/99 13:30	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	68	0.2	5/31/99 12:05	EPA 200.7	EG
Calcium (D), as Ca, mg/L	66	0.2	5/28/99 8:11	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.16	0.02	5/31/99 12:05	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	5/28/99 8:11	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	92	0.2	5/31/99 12:05	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7373 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004791
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 10:00
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	91	0.2	5/28/99 8:11	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	5/31/99 12:05	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	5/28/99 8:11	EPA 200.7	EG
Potassium (D), as K, mg/L	3.3	0.2	5/28/99 8:11	EPA 200.7	EG
Sodium (D), as Na, mg/L	170	0.2	5/28/99 8:11	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	6/ 7/99 10:00	SM18 5520B	BM
Cation Sum, meq/L	18.26				
Anion Sum, meq/L	19.45				
% Cation/Anion Difference,	3.16				
Temperature, Receiving, C	5.0		5/26/99 9:50		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004790
Project: BASELINE
Sample Desc: CRB
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 9:30
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	368	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	302	1	6/ 1/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	121	1	6/ 4/99 9:00	EPA 325.3	KA
Hardness, (calc), mg CaCO3/L	2,050	0.2	6/10/99 10:08	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/26/99 13:20	EPA 160.5	LPS
Sulfate, mg/L	2,680	500	6/ 9/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,610	10	5/26/99 15:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	4	1	5/26/99 13:30	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	410	0.2	5/28/99 8:11	EPA 200.7	EG
Calcium (D), as Ca, mg/L	410	0.2	5/28/99 8:11	EPA 200.7	EG
Iron (T), as Fe, mg/L	< 0.02	0.02	5/28/99 8:11	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	5/28/99 8:11	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	250	0.2	5/28/99 8:11	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004790
Project: BASELINE
Sample Desc: CRB
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 9:30
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Magnesium (D), as Mg, mg/L	250	0.2	5/28/99	8:11	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.01	0.01	5/28/99	8:11	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.01	0.01	5/28/99	8:11	EPA 200.7	EG
Potassium (D), as K, mg/L	19	0.2	5/28/99	8:11	EPA 200.7	EG
Sodium (D), as Na, mg/L	390	0.2	5/28/99	8:11	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	6/ 7/99	10:00	SM18 5520B	BM
Cation Sum, meq/L	58.48					
Anion Sum, meq/L	65.24					
% Cation/Anion Difference,	5.46					CSM
Temperature, Receiving, C	5.5		5/26/99	9:50		

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004792
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 10:20
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	546	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	3	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	453	1	6/ 1/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	41	1	6/ 4/99 9:00	EPA 325.3	KA
Hardness, (calc), mg CaCO3/L	578	0.2	6/10/99 10:08	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/26/99 13:20	EPA 160.5	LPS
Sulfate, mg/L	474	100	6/ 9/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,230	10	5/26/99 15:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	6	1	5/26/99 13:30	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	83	0.2	5/28/99 8:11	EPA 200.7	EG
Calcium (D), as Ca, mg/L	83	0.2	5/28/99 8:11	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.15	0.02	5/28/99 8:11	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.04	0.02	5/28/99 8:11	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	91	0.2	5/28/99 8:11	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004792
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 10:20
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Magnesium (D), as Mg, mg/L	90	0.2	5/28/99	8:11	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	5/28/99	8:11	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	5/28/99	8:11	EPA 200.7	EG
Potassium (D), as K, mg/L	3.3	0.2	5/28/99	8:11	EPA 200.7	EG
Sodium (D), as Na, mg/L	160	0.2	5/28/99	8:11	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	6/ 7/99	10:00	SM18 5520B	BM
Cation Sum, meq/L	18.59					
Anion Sum, meq/L	20.07					
% Cation/Anion Difference,	3.83					
Temperature, Receiving, C	6.0		5/26/99	9:50		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004793
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 11:00
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	496	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	6/ 1/99 9:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	407	1	6/ 1/99 9:00	SM 2320B	TSM
Chloride (D), mg/L	14	1	6/ 4/99 9:00	EPA 325.3	KA
Hardness, (calc), mg CaCO3/L	371	0.2	6/10/99 10:08	CAL	RIF
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	5/26/99 13:20	EPA 160.5	LPS
Sulfate, mg/L	242	50	6/ 9/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	820	10	5/26/99 15:00	EPA 160.1	LPS
Total Suspended Solids, mg/L	3	1	5/26/99 13:30	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	60	0.2	5/28/99 8:11	EPA 200.7	EG
Calcium (D), as Ca, mg/L	61	0.2	5/28/99 8:11	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.13	0.02	5/28/99 8:11	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	5/28/99 8:11	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	54	0.2	5/28/99 8:11	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 6/10/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 30145
Lab #: 99-U004793
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: GROUND WATER
Date Sampled: 5/25/99
Date Submitted: 5/25/99

Time Sampled: 11:00
Time Received: 9:50

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED		METHOD	ANALYST
INORGANIC PARAMETERS						
Magnesium (D), as Mg, mg/L	53	0.2	5/28/99	8:11	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	5/28/99	8:11	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	5/28/99	8:11	EPA 200.7	EG
Potassium (D), as K, mg/L	2.5	0.2	5/28/99	8:11	EPA 200.7	EG
Sodium (D), as Na, mg/L	130	0.2	5/28/99	8:11	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	6/ 7/99	10:00	SM18 5520B	BM
Cation Sum, meq/L	13.13					
Anion Sum, meq/L	13.56					
% Cation/Anion Difference,	1.64					
Temperature, Receiving, C	7.0		5/26/99	9:50		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

ANALYSIS REQUEST FORM/CHAIN OF CUSTODY

CHEMTECH - FORD, INC.

COMPANY: Scot
ADDRESS: #1 Power Plant Rd
CITY/STATE/ZIP: Sunny Hill, Utah 84539
PHONE #: 888-4476 FAX #: 888-2538
COMPANY CONTACT: Rusty Hill
PROJECT: Baseline

_____Mark 'X' for copy to DEQ Div of Drinking Water

BILLING NAME:
BILLING ADDRESS:
P.O. #:
TURNAROUND REQUIRED*
*expedited turnaround subject to additional charge

Lab ID#		SAMPLE IDENTIFICATION/LOCATION	SAMPLE DATE	SAMPLE TIME	Number of Containers	MATRIX: Water: Drink., Waste, Ground (circle)	Soil / Solid (circle)	Sludge: Solid, Liquid (circle)	Oil	Solvent	Other (specify)	ANALYTES REQUESTED: Baseline
4790	1.	CRB	5/25	930	3	✓			✓			X
4791	2.	ICE-1	5/25	1000	3	✓			✓			X
4792	3.	F-2	5/25	1020	3	✓			✓			X
4793	4.	Well-1	5/25	1100	3	✓			✓			X
	5.											
	6.											
	7.											
	8.											
	9.											
	10.											

Sampled by: (print)
Sampled by: (signature)
Sample Receiving Temperature: (C) ON ICE

Special Instructions: Filter in Lab - for Metals. ~~[illegible]~~ 1037

Sample Delivered by Courier:

Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time
Rusty Hill	5/25/99 / 1130	M. [illegible]	5/25/99 1330
Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time
		[illegible]	5/25/99 @ 930
Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time

CHEMTECH-FORD, INC. 6100 South Stratler (380 West) Murray, UT 84107 Phone 801-262-7299 Fax 801-262-7378

NET 30 DAYS: 1.5% PER MONTH INTEREST CHARGE (18% A.P.R.) CUSTOMER [illegible]ES TO PAY COLLECTION COSTS AND ATTORNEY'S FEES.

YELLOW: CUSTOMER PINK: [illegible]LE

Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (801) 888-4476 • Fax (801) 888-2538

Oct. 11, 1999

Division of Oil, Gas & Mining
STATE OF UTAH
c/o College of Eastern Utah
451 East 400 North
Price, Utah 84501

ATTN: Mr. Bill Malencik

Subject: Quarterly Sampling Report
Monitoring Period: July, August, and September
DOGM Permit Boundary Water Quality Monitoring Plan
Sunnyside Cogeneration Associates Power Plant

Dear Bill:

This letter summarizes the analytical results and field activities concerning the DOGM Permit Water Quality Monitoring Plan at the Sunnyside Cogeneration Associates Power Plant. The baseline quarterly period covered is July, August, and September 1999. I collected the quarterly water-samples, monthly field parameters, and performed visual inspections of the DOGM permit monitoring locations on September 08, 1999.

Immediately after collection, the water samples were preserved (when necessary), placed on ice in a cooler, and delivered under chain of custody documentation to Chemtech / Ford Laboratory.

The required field parameters for each monitoring location were measured on September 08, 1999, and are presented in Table 2. None of the DOGM UPDES permit outfalls discharged effluent during the monitoring period. Also, coarse refuse source (CRS) monitoring location was not discharging during this period; no sample was taken.

If you have any questions or comments, please contact me at t the above number.

Sincerely,

Rusty Netz

Rusty Netz
Environmental Coordinator

RN/ta

Enclosures:

Table 1:	Compliance Monitoring Locations
Table 2:	Field Parameter Data
Table 3:	Quarterly Compliance Sampling Results, 3rd Quarter
Attachment A:	Field Data Sheets (UPDES)
Attachment B:	Analytical Laboratory Report

cc. Mr. Ken Wyatt, Division of Oil, Gas & Mining
SCA Plant file
Rusty Netz

TABLE #1

TABLE 1

Sunnyside Cogeneration Facility

Sunnyside, Utah

Compliance Monitoring Locations

DOGM Permit Boundary Water Quality Monitoring Plan

DOGM UPDES Monitoring Locations
Outfall 004, Clear Water Pond
Outfall 007, Rail Cut Pond
Outfall 008, Old Coarse Refuse Pond
Outfall 009, Pasture Pond
Outfall 012, Coarse RefuseToe
Outfall 014, Coal Pile Runoff Pond
Outfall 016, Borrow Area Pond

DOGM Baseline Water Quality Monitoring Locations
ICE-1, Icelander Creek
F-2, Whitmore Springs
CRS, Coarse Refuse Seep-Source
CRB, Coarse Refuse Seep-Boundary
WELL-1, Dragerton Well
B-6, Borehole B-6

TABLE #2

TABLE 2

Sunnyside Cogeneration Facility
Sunnyside, Utah

Field Parameter Data

DOGM Permit Boundry Water Quality Monitoring Plan
Monitoring Period: Third Quarter 1999
Samples taken September 8, 1999

Monitoring Location	Location I.D.	Temp. (C)	pH (su)	SC (umhos)	Dissolved Oxygen (mg/l)	Flow Rate (gpm)	Flow method
Icelander Creek	ICE-1	12.6	8.22	1610	8.2	30	2
Columbia Dugway Spring	F-2	14	8	1640	8.4	35	2
Coarse Refuse Seep Source	CRS	NA	NA	NA	NA	NA	NA
Coarse Refuse Seep Boundary	CRB	11.7	7.75	4860	8	30	2
Dragerton Well	Well-1	14.7	7.27	1440	7.8	125	4
Borehole B-6	B-6	NW	NW	NW	NW	NW	NW

Notes:
na - no flow
NW- no water present
nd - data is not available due to lack of discharge
1- Flow rates were measured using a weir.
2 - Flow rates were measured using a calibrated container and stopwatch method.
3 - Flow rates were measured using the floating debris method.
4 - Flow rates were measured using a meter

TABLE #3

TABLE 3

Sunnyside Cogeneration Facility

Sunnyside, Utah
Third Quarter 1999
Quarterly Compliance Sampling Results

DOGM Permit Boundary Water Quality Monitoring Plan
Sampling Date: September 8, 1999

	Analytical Parameters									
	Metals (mg/l)				Inorganics (mg/l)					Ions
Sample Location	Iron Total	Iron Dissolved	Manganese Total	Manganese Dissolved	Electrical Conductivity	Oil & Grease	Settleable Solids	Dissolved Solids	Suspended Solids	C - A Balance
ICE-1	0.16	0.02	<0.01	<0.01	1610	<5	<0.1	1140	9	16 28/18 13
CRB	0.79	<0.02	0.21	0.16	4860	<5	0.5	4710	105	56 18/61 13
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F-2	0.12	0.03	0.02	0.02	1640	<5	<0.1	1140	5	18 36/20 0
WELL-1	0.08	<0.02	110	96	1440	<5	NA	1,070	NA	16 22/17 53
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

	Analytical Parameters									
	Anions (mg/l)					Cations (mg/l)				
Sample Location	Bicarbonate Alkalinity	Carbonate Alkalinity	Total Alkalinity	Chloride as Cl	Sulfate as SO4	Calcium as Ca (D)	Hardness as CaCO3	Magnesium as Mg (D)	Potassium as K	Sodium as Na
ICE-1	543	4	453	31	395	55	463	79	2.9	160
CRB	427	<1	350	118	2440	390	1960	240	17	380
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F-2	601	<1	493	30	447	78	561	85	3.1	170
WELL-1	459	<1	376	56	405	61	548	96	2.2	120
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable
* Higher detection limit reported due to interferences present in the sample
NA not applicable
NW no water present
ND data is not available due to lack of discharge

ATTACHMENT "A"

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: CLEAR WATER POND

OUTFALL NUMBER: 004

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0757	R. NETZ	cold/sunny	NO							NO	Damp basin
1/29/99	1300	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1115	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	912	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1400	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	955	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1050	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1340	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	920	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1439	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1340	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1337	R. NETZ	sunny	NO							NO	6" water
7/9/99	1415	R. NETZ	cloudy	NO							NO	Basin dry
7/22/99	945	R. NETZ	rainy	NO							NO	1" ft.water
8/6/99	1050	R. NETZ	rainy	NO							NO	1" ft.water
8/27/99	1340	R. NETZ	rainy	NO							NO	DAMP
9/10/99	1100	R. NETZ	cool/clear	NO							NO	DAMP
9/24/99	1355	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: RAIL CUT POND
OUTFALL NUMBER: 007

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0926	R. NETZ	cold/sunny	NO							NO	damp basin
1/29/99	1439	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1439	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1120	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1655	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1155	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1330	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1535	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	830	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1645	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1018	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1420	R. NETZ	sunny	NO							NO	Basin dry
7/9/99	1513	R. NETZ	cloudy	NO							NO	DAMP
7/22/99	1130	R. NETZ	rainy	NO							NO	DAMP
8/6/99	1330	R. NETZ	rainy	NO							NO	DAMP
8/27/99	1535	R. NETZ	rainy	NO							NO	DAMP
9/10/99	1345	R. NETZ	cool/clear	NO							NO	DAMP
9/24/99	1545	R. NETZ	cool/clear									

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: OLD COARSE REFUSE BASIN
OUTFALL NUMBER: 008

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1009	R. NETZ	cold/sunny	NO							NO	damp Basin
1/29/99	1512	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1145	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	925	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1425	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1015	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1110	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1355	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	935	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1455	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	1410	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1345	R. NETZ	sunny	NO							NO	DAMP
7/9/99	1430	R. NETZ	cloudy	NO							NO	DAMP
7/22/99	1010	R. NETZ	rainy	NO							NO	1" water
8/6/99	1110	R. NETZ	rainy	NO							NO	1" water
8/27/99	1355	R. NETZ	rainy	NO							NO	Basin dry
9/10/99	1120	R. NETZ	cool/clear	NO							NO	Basin dry
9/24/99	1410	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS	PASTURE POND
OUTFALL NUMBER	009

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1021	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1527	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1330	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	955	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1438	R. NETZ	cool/clear	NO							NO	Basin dry
3/26/99	1030	R. NETZ	cool/clear	NO							NO	Basin dry
4/15/99	1120	R. NETZ	sunny	NO							NO	Basin dry
4/25/99	1415	R. NETZ	sunny	NO							NO	Basin dry
5/6/99	945	R. NETZ	sunny	NO							NO	Basin dry
5/19/99	1510	R. NETZ	sunny	NO							NO	Basin dry
6/10/99	940	R. NETZ	sunny	NO							NO	Basin dry
6/26/99	1350	R. NETZ	sunny	NO							NO	1' ft. water
7/9/99	1440	R. NETZ	cloudy	NO							NO	3' ft. water
7/22/99	1020	R. NETZ	rainy	NO							NO	1' ft. water
8/6/99	1120	R. NETZ	rainy	NO							NO	1' ft. water
8/27/99	1415	R. NETZ	rainy	NO							NO	DAMP
9/10/99	1130	R. NETZ	cool/clear	NO							NO	DAMP
9/24/99	1425	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	COARSE REFUSE TOE POND
OUTFALL NUMBER:	012

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	0928	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1446	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1430	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1110	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1645	R. NETZ	cool/clear	NO							NO	DAMP
3/26/99	1150	R. NETZ	cool/clear	NO							NO	DRY
4/15/99	1345	R. NETZ	sunny	NO							NO	DRY
4/25/99	1525	R. NETZ	sunny	NO							NO	DRY
5/6/99	835	R. NETZ	sunny	NO							NO	DRY
5/19/99	1630	R. NETZ	sunny	NO							NO	DRY
6/10/99	1015	R. NETZ	sunny	NO							NO	DRY
6/26/99	1410	R. NETZ	sunny	NO							NO	3" WATER
7/9/99	1508	R. NETZ	cloudy	NO							NO	6" WATER
7/22/99	1115	R. NETZ	rainy	NO							NO	1" ft water
8/6/99	1345	R. NETZ	rainy	NO							NO	1" ft water
8/27/99	1525	R. NETZ	rainy	NO							NO	DRY
9/10/99	1400	R. NETZ	cool/clear	NO							NO	DRY
9/24/99	1545	R. NETZ	cool/clear	NO								

Sunnyside Cogen[illegible]ion Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS	COAL PILE SED. POND
OUTFALL NUMBER	014

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1123	R. NETZ	cold/sunny	NO							NO	Muddy basin
1/29/99	1331	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1338	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	1015	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1445	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1036	R. NETZ	cool/clear	NO							NO	DRY BASIN
4/15/99	1125	R. NETZ	sunny	NO							NO	DRY BASIN
4/25/99	1420	R. NETZ	sunny	NO							NO	DRY BASIN
5/6/99	949	R. NETZ	sunny	NO							NO	DRY BASIN
5/19/99	1515	R. NETZ	sunny	NO							NO	DRY BASIN
6/10/99	920	R. NETZ	sunny	NO							NO	DRY BASIN
6/26/99	1355	R. NETZ	sunny	NO							NO	6" WATER
7/9/99	1445	R. NETZ	cloudy	NO							NO	1' ft. WATER
7/22/99	1026	R. NETZ	rainy	NO							NO	6" WATER
8/6/99	1125	R. NETZ	rainy	NO							NO	6" WATER
8/27/99	1420	R. NETZ	rainy	NO							NO	DRY BASIN
9/10/99	1150	R. NETZ	cool/clear	NO							NO	DRY BASIN
9/24/99	1450	R. NETZ	cool/clear	NO								

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS: BORROW AREA BASIN

OUTFALL NUMBER: 016

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
1/11/99	1102	R. NETZ	cold/sunny	NO							NO	DAMP
1/29/99	1206	R. NETZ	snowy	NO							NO	1" snow
2/13/99	1125	R. NETZ	cold/sunny	NO							NO	DAMP
2/26/99	920	R. NETZ	cold/sunny	NO							NO	DAMP
3/13/99	1415	R. NETZ	cool/clear	NO							NO	DRY BASIN
3/26/99	1010	R. NETZ	cool/clear	NO							NO	DRY BASIN
4/15/99	1100	R. NETZ	sunny	NO							NO	DRY BASIN
4/25/99	1350	R. NETZ	sunny	NO							NO	DRY BASIN
5/6/99	930	R. NETZ	sunny	NO							NO	DRY BASIN
5/19/99	1445	R. NETZ	sunny	NO							NO	DRY BASIN
6/10/99	1358	R. NETZ	sunny	NO							NO	DRY BASIN
6/26/99	1334	R. NETZ	sunny	NO							NO	DAMP
7/9/99	1425	R. NETZ	cloudy	NO							NO	DAMP
7/22/99	955	R. NETZ	rainy	NO							NO	DAMP
8/6/99	1100	R. NETZ	rainy	NO							NO	DAMP
8/27/99	1350	R. NETZ	rainy	NO							NO	DAMP
9/10/99	1100	R. NETZ	cool/clear	NO							NO	DAMP
9/24/99	1350	R. NETZ	cool/clear	NO								

ATTACHMENT "B"

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008658
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:00
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	543	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	4	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	453	1	9/14/99 13:30	SM 2320B	TSM
Chloride (D), mg/L	31	1	9/13/99 13:30	EPA 325.3	PNM
Hardness, (calc), mg CaCO3/L	463	0.2	9/16/99 11:57	CAL	EJB
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	9/ 9/99 10:30	EPA 160.5	LPS
Sulfate, mg/L	395	100	9/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,140	10	9/ 9/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	9	1	9/ 9/99 10:45	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	63	0.2	9/13/99 2:40	EPA 200.7	EG
Calcium (D), as Ca, mg/L	55	0.2	9/14/99 12:14	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.16	0.02	9/13/99 2:40	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.02	0.02	9/14/99 12:14	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	87	0.2	9/13/99 2:40	EPA 200.7	EG

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

CHEMTECH FORD

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008658
Project: BASELINE
Sample Desc: ICE-1
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:00
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	79	0.2	9/14/99 12:14	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	9/13/99 2:40	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	9/14/99 12:14	EPA 200.7	EG
Potassium (D), as K, mg/L	2.9	0.2	9/14/99 12:14	EPA 200.7	EG
Sodium (D), as Na, mg/L	160	0.2	9/14/99 12:14	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	9/20/99 8:30	SM18 5520B	BM
Cation Sum, meq/L	16.28		9/16/99 11:54		EJB
Anion Sum, meq/L	18.13		9/16/99 11:54		EJB
% Cation/Anion Difference,	5.38		9/16/99 11:54		EJB
Temperature, Receiving, C	4.5		9/ 9/99 10:00		CSM

NOTE: Sample received on ice.

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH [illegible]
[illegible]
[illegible]

CHEMTECH-FORD

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008657
Project: BASELINE
Sample Desc: CRB
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 9:25
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	427	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	350	1	9/14/99 13:30	SM 2320B	TSM
Chloride (D), mg/L	118	2	9/13/99 13:30	EPA 325.3	PNM
Hardness, (calc), mg CaCO3/L	1,960	0.2	9/16/99 11:57	CAL	EJB
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	0.5	0.1	9/ 9/99 10:30	EPA 160.5	LPS
Sulfate, mg/L	2,440	1000	9/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,710	10	9/ 9/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	105	1	9/ 9/99 10:45	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	420	0.2	9/13/99 2:40	EPA 200.7	EG
Calcium (D), as Ca, mg/L	390	0.2	9/14/99 12:14	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.79	0.02	9/13/99 2:40	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	9/14/99 12:14	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	260	0.2	9/13/99 2:40	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

CHEMTECH-FORD

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008657
Project: BASELINE
Sample Desc: CRB
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 9:25
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	240	0.2	9/14/99 12:14	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.21	0.01	9/13/99 2:40	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.16	0.01	9/14/99 12:14	EPA 200.7	EG
Potassium (D), as K, mg/L	17	0.2	9/14/99 12:14	EPA 200.7	EG
Sodium (D), as Na, mg/L	380	0.2	9/14/99 12:14	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	9/20/99 8:30	SM18 5520B	BM
Cation Sum, meq/L	56.18		9/16/99 11:51		EJB
Anion Sum, meq/L	61.13		9/16/99 11:52		EJB
% Cation/Anion Difference,	4.22		9/16/99 11:53		EJB
Temperature, Receiving, C	4.0		9/ 9/99 10:00		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6905
801 262 7299 PHONE
801 262 [illegible]

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008659
Project: BASELINE
Sample Desc: F-2
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:20
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	601	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	493	1	9/14/99 13:30	SM 2320B	TSM
Chloride (D), mg/L	30	1	9/13/99 13:30	EPA 325.3	PNM
Hardness, (calc), mg CaCO3/L	561	1	9/29/99 16:47	CAL	EJB
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	9/ 9/99 10:30	EPA 160.5	LPS
Sulfate, mg/L	447	100	9/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,140	10	9/ 9/99 14:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	5	1	9/ 9/99 10:45	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	81	0.2	9/29/99 12:21	EPA 200.7	EG
Calcium (D), as Ca, mg/L	78	0.2	9/14/99 12:14	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.12	0.02	9/14/99 12:14	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.03	0.02	9/14/99 12:14	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	87	0.2	9/29/99 12:21	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

CHEMTECH-FORD

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008659
Project: BASELINE
Sample Desc: F-2
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:20
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	85	0.2	9/14/99 12:14	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	9/14/99 12:14	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	9/14/99 12:14	EPA 200.7	EG
Potassium (D), as K, mg/L	3.1	0.2	9/14/99 12:14	EPA 200.7	EG
Sodium (D), as Na, mg/L	170	0.2	9/14/99 12:14	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	9/20/99 8:30	SM18 5520B	BM
Cation Sum, meq/L	18.36		9/16/99 11:55		EJB
Anion Sum, meq/L	20.00		9/16/99 11:55		EJB
% Cation/Anion Difference,	4.28		9/16/99 11:56		EJB
Temperature, Receiving, C	5.0		9/ 9/99 10:00		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY, UTAH 84107-6905
801-262-7299 PHONE

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008660
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:45
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	459	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	9/14/99 13:30	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	376	1	9/14/99 13:30	SM 2320B	TSM
Chloride (D), mg/L	56	1	9/13/99 13:30	EPA 325.3	PNM
Hardness, (calc), mg CaCO3/L	548	0.2	9/28/99 16:11	CAL	RIF
Hardness Index: Very Hard Water					
Sulfate, mg/L	405	100	9/24/99 12:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,070	10	9/ 9/99 14:30	EPA 160.1	LPS
Calcium (T), as Ca, mg/L	67	0.2	9/14/99 12:14	EPA 200.7	EG
Calcium (D), as Ca, mg/L	61	0.2	9/14/99 12:14	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.08	0.02	9/14/99 12:14	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	9/14/99 12:14	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	110	0.2	9/14/99 12:14	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	96	0.2	9/14/99 12:14	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.01	0.01	9/14/99 12:14	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

Date: 9/29/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 32415
Lab #: 99-U008660
Project: BASELINE
Sample Desc: Well-1
Sample Matrix: WATER
Date Sampled: 9/ 8/99
Date Submitted: 9/ 9/99

Time Sampled: 10:45
Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Manganese (D), as Mn, mg/L	< 0.01	0.01	9/14/99 12:14	EPA 200.7	EG
Potassium (D), as K, mg/L	2.2	0.2	9/14/99 12:14	EPA 200.7	EG
Sodium (D), as Na, mg/L	120	0.2	9/14/99 12:14	EPA 200.7	EG
Oil & Grease, mg/L	< 5	5	9/20/99 8:30	SM18 5520B	BM
Cation Sum, meq/L	16.22				
Anion Sum, meq/L	17.53				
% Cation/Anion Difference,	3.90				
Temperature, Receiving, C	4.0		9/ 9/99 10:00		CSM

NOTE: Sample received on ice.

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107-6905
801 262 7299 PHONE
801 262 [illegible]

CHEMTECH - FORD, INC.

ANALYSIS REQUEST FORM/CHAIN OF CUSTOL

COMPANY: Sunnyside Co-Gen
ADDRESS: #1 Power Plant RD.
CITY/STATE/ZIP: Sunnyside, Ut. 84539
PHONE #: 888-41176 FAX #: 888-2538
COMPANY CONTACT: Rusty Neth
PROJECT: Baseline

BILLING NAME:
BILLING ADDRESS:
P.O. #:
TURNAROUND REQUIRED* Regular
*expedited turnaround subject to additional charge

_____Mark 'X' for copy to DEQ Div of Drinking Water

Lab ID#	SAMPLE IDENTIFICATION/LOCATION	SAMPLE DATE	SAMPLE TIME	Number of Containers	MATRIX: Water: Drink., Waste, Ground (circle)	MATRIX: Soil / Solid (circle)	MATRIX: Sludge: Solid, Liquid (circle)	MATRIX: Oil	MATRIX: Solvent	MATRIX: Other (specify)	ANALYTES REQUESTED: Base Line
8657	1. CRB	9/8	925	3	✓			✓			X
8658	2. ICE-1	9/8	1000	3	✓			✓			X
8659	3. F-2	9/8	1020	3	✓			✓			X
8660	4. Well-1	9/8	1045	3	✓			✓			X
	5.										
	6.										
	7.										
	8.										
	9.										
	10										

Not Filtered

Sampled by: (print)
Sampled by: (signature)
Sample Receiving Temperature: (C) ON ICE

Special Instructions:

Sample Delivered by Courier:

	Date/Time		Date/Time
Relinquished by: (signature) Rusty Neth	1100 / 9/8/99	Received by (signature): M. Montgomery	9/8/99 13:35
Relinquished by: (signature)	Date/Time	Received by (signature): S D	Date/Time 9-9-99 @ 1000
Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time

CHEMTECH-FORD, INC. 6100 South Stratler (380 West) Murray, UT 84107 Phone 801-262-7299 Fax 801-262-7378

0 DAYS: 1.5% PER MONTH INTEREST CHARGE (18% A.P.R.) CUSTOMER AGREES TO PAY COLLECTION COSTS AND ATTORNEY'S FEES.

WHITE: ORIGINAL YELLOW: CUSTOMER PINK: FILE

Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (435) 888-4476 • Fax (435) 888-2538

January 14, 2000

Division of Oil, Gas & Mining
STATE OF UTAH
c/o College of Eastern Utah
451 East 400 North
Price, Utah 84501

ATTN: Mr. Bill Malencik

Subject: Quarterly Sampling Report
Monitoring Period: October, November, December 1999
DOGM Permit Boundary Water Quality Monitoring Plan
Sunnyside Cogeneration Associates Power Plant

Dear Bill:

This letter summarizes the analytical results and field activities concerning the DOGM Permit Water Quality Monitoring Plan at the Sunnyside Cogeneration Associates Power Plant. The baseline quarterly period covered is Oct., Nov., Dec. 1999. I collected the quarterly water-samples, monthly field parameters, and performed visual inspections of the DOGM permit monitoring locations on December 07, 1999.

Immediately after collection, the water samples were preserved (when necessary), placed on ice in a cooler, and delivered under chain of custody documentation to Chemtech / Ford Laboratory.

The required field parameters for each monitoring location were measured on December 07, 1999, and are presented in Table 2. None of the DOGM UPDES permit outfalls discharged effluent during the monitoring period. Also, coarse refuse source (CRS) monitoring location was not discharging during this period; no sample was taken.

If you have any questions or comments, please contact me at (435) 888-4476.

Sincerely,

Rusty Netz

Rusty Netz
Environmental Coordinator

RN/ta

Enclosures:

Table 1:	Compliance Monitoring Locations
Table 2:	Field Parameter Data
Table 3:	Quarterly Compliance Sampling Results, 4th Quarter
Attachment A:	Field Data Sheets (UPDES)
Attachment B:	Analytical Laboratory Report

cc. Mr. Ken Wyatt, Division of Oil, Gas & Mining
SCA Plant file
Rusty Netz

TABLE #1

TABLE 1

Sunnyside Cogeneration Facility

Sunnyside, Utah

Compliance Monitoring Locations

DOGM Permit Boundary Water Quality Monitoring Plan

DOGM UPDES Monitoring Locations
Outfall 004, Clear Water Pond
Outfall 007, Rail Cut Pond
Outfall 008, Old Coarse Refuse Pond
Outfall 009, Pasture Pond
Outfall 012, Coarse RefuseToe
Outfall 014, Coal Pile Runoff Pond
Outfall 016, Borrow Area Pond

DOGM Baseline Water Quality Monitoring Locations
ICE-1, Icelander Creek
F-2, Whitmore Springs
CRS, Coarse Refuse Seep-Source
CRB, Coarse Refuse Seep-Boundary
WELL-1, Dragerton Well
B-6, Borehole B-6

TABLE #2

TABLE 2

Sunnyside Cogeneration Facility
Sunnyside, Utah

Field Parameter Data

DOGM Permit Boundry Water Quality Monitoring Plan
Monitoring Period: Fourth Quarter 1999
Samples taken December 7, 1999

Monitoring Location	Location I.D.	Temp. (C)	pH (su)	SC (umhos)	Dissolved Oxygen (mg/l)	Flow Rate (gpm)	Flow method
Icelander Creek	ICE-1	0.5	8.7	1590	9	28	2
Columbia Dugway Spring	F-2	4.4	8.8	1510	8.9	45	2
Coarse Refuse Seep Source	CRS	NA	NA	NA	NA	NA	NA
Coarse Refuse Seep Boundary	CRB	1.3	8.51	4610	8.7	25	2
Dragerton Well	Well-1	8.9	7.75	300	8.4	125	4
Borehole B-6	B-6	NW	NW	NW	NW	NW	NW

Notes:
na - no flow
NW- no water present
nd - data is not available due to lack of discharge
1- Flow rates were measured using a weir.
2 - Flow rates were measured using a calibrated container and stopwatch method.
3 - Flow rates were measured using the floating debris method.
4 - Flow rates were measured using a meter

TABLE #3

TABLE 3

Sunnyside Cogeneration Facility

Sunnyside, Utah
Fourth Quarter 1999
Quarterly Compliance Sampling Results

DOGM Permit Boundary Water Quality Monitoring Plan
Sampling Date: December 7, 1999

	Analytical Parameters									
	Metals (mg/l)				Inorganics (mg/l)					Ions
Sample Location	Iron Total	Iron Dissolved	Manganese Total	Manganese Dissolved	Electrical Conductivity	Oil & Grease	Settleable Solids	Dissolved Solids	Suspended Solids	C - A Balance
ICE-1	0 19	0 05	<0.01	<0.01	1590	<6	<0.1	1100	8	18.04/18.31
CRB	<0 02	<0 02	0.01	0.01	4610	<6	<0.1	4460	2	53.42/59.51
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	0 11	0.04	0.02	0.02	1510	<6	<0.1	1020	2	17.59/17.52
WELL-1	0 02	<0 02	<0 01	<0.01	300	7	NA	900	NA	14.92/14.70
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

	Analytical Parameters									
	Anions (mg/l)					Cations (mg/l)				
Sample Location	Bicarbonate Alkalinity	Carbonate Alkalinity	Total Alkalinity	Chloride as Cl	Sulfate as SO4	Calcium as Ca (D)	Hardness as CaCO3	Magnesium as Mg (D)	Potassium as K	Sodium as Na
ICE-1	575	<1	472	28	389	66	479	78	3.2	180
CRB	425	<1	349	121	2360	360	1940	230	17	370
CRS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
F - 2	565	<1	464	25	363	74	460	78	3	170
WELL-1	509	<1	417	19	290	51	313	45	2.2	110
BOREHOLE B-6	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.
* Higher detection limit reported due to interferences present in the sample
na not applicable
NW no water present
ND - data is not available due to lack of discharge

ATTACHMENT "A"

Sunnyside Cogeneration Associates
UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	WATER SUPPLY PIPELINE
OUTFALL NUMBER:	002

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	0744	R. NETZ	cold/sunny	NO							NO	
01/29/1999	1215	R. NETZ	snowy	NO							NO	
02/13/1999	1018	R. NETZ	SUNNY	NO							NO	
02/26/1999	820	R. NETZ	SUNNY	NO							NO	
03/13/1999	1310	R. NETZ	cool/clear	NO							NO	
03/26/1999	910	R. NETZ	cool/clear	NO							NO	
04/15/1999	955	R. NETZ	sunny	NO							NO	
04/25/1999	1300	R. NETZ	sunny	NO							NO	
05/06/1999	900	R. NETZ	sunny	NO							NO	
05/19/1999	1400	R. NETZ	sunny	NO							NO	
06/10/1999	1120	R. NETZ	sunny	NO							NO	
06/26/1999	1030	R. NETZ	sunny	NO							NO	
07/09/1999	1335	R. NETZ	cloudy	NO							NO	
07/22/1999	915	R. NETZ	rainy	NO							NO	
08/06/1999	955	R. NETZ	rainy	NO							NO	
08/27/1999	1300	R. NETZ	rainy	NO							NO	
09/10/1999	1040	R. NETZ	cool/clear	NO							NO	
09/24/1999	1320	R. NETZ	cool/clear	NO							NO	
10/08/1999	911	R. NETZ	sunny	NO							NO	
10/27/1999	1410	R. NETZ	sunny	NO							NO	
11/05/1999	1125	R. NETZ	sunny	NO							NO	
11/19/1999	1035	R. NETZ	sunny	NO							NO	
12/10/1999	0852	R. NETZ	cold/sunny	NO							NO	
12/22/1999	1324	R. NETZ	Ptly. cloudy	NO							NO	

Sunnyside Cogeneration Associates
UPDES Monitoring Sites
Field Data Sheets

[illegible]	WATER SUPPLY PIPELINE
[illegible] Point	003

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	0752	R. NETZ	cold/sunny	NO							NO	
01/29/1999	1224	R. NETZ	snowy	NO							NO	
02/13/1999	1018	R. NETZ	SUNNY	NO							NO	
02/26/1999	820	R. NETZ	SUNNY	NO							NO	
03/13/1999	1325	R. NETZ	cool/clear	NO							NO	
03/26/1999	920	R. NETZ	cool/clear	NO							NO	
04/15/1999	1020	R. NETZ	sunny	NO							NO	
04/25/1999	1310	R. NETZ	sunny	NO							NO	
05/06/1999	911	R. NETZ	sunny	NO							NO	
05/19/1999	1410	R. NETZ	sunny	NO							NO	
06/10/1999	1125	R. NETZ	sunny	NO							NO	
06/26/1999	1035	R. NETZ	sunny	NO							NO	
07/09/1999	1335	R. NETZ	cloudy	NO							NO	
07/22/1999	915	R. NETZ	rainy	NO							NO	
08/06/1999	1020	R. NETZ	rainy	NO							NO	
08/27/1999	1310	R. NETZ	rainy	NO							NO	
09/10/1999	1040	R. NETZ	cool/clear	NO							NO	
09/24/1999	1320	R. NETZ	cool/clear	NO							NO	
10/08/1999	911	R. NETZ	sunny	NO							NO	
10/27/1999	1410	R. NETZ	sunny	NO							NO	
11/05/1999	1125	R. NETZ	sunny	NO							NO	
11/19/1999	1035	R. NETZ	sunny	NO							NO	
12/10/1999	0852	R. NETZ	cold/sunny	NO							NO	
12/22/1999	1324	R. NETZ	Ptly. cloudy	NO							NO	

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	CLEAR WATER POND
OUTFALL NUMBER:	004

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	0757	R. NETZ	cold/sunny	NO							NO	Damp basin
01/29/1999	1300	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1115	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	912	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1400	R. NETZ	cool/clear	NO							NO	Basin dry
03/26/1999	955	R. NETZ	cool/clear	NO							NO	Basin dry
04/15/1999	1050	R. NETZ	sunny	NO							NO	Basin dry
04/25/1999	1340	R. NETZ	sunny	NO							NO	Basin dry
05/06/1999	920	R. NETZ	sunny	NO							NO	Basin dry
05/19/1999	1439	R. NETZ	sunny	NO							NO	Basin dry
06/10/1999	1340	R. NETZ	sunny	NO							NO	Basin dry
06/26/1999	1337	R. NETZ	sunny	NO							NO	Basin dry
07/09/1999	1415	R. NETZ	cloudy	NO							NO	6" water
07/22/1999	945	R. NETZ	rainy	NO							NO	Basin dry
08/06/1999	1050	R. NETZ	rainy	NO							NO	1' ft.water
08/27/1999	1340	R. NETZ	rainy	NO							NO	1' ft.water
09/10/1999	1100	R. NETZ	cool/clear	NO							NO	DAMP
09/24/1999	1355	R. NETZ	cool/clear	NO							NO	DAMP
10/08/1999	920	R. NETZ	sunny	NO							NO	Basin dry
10/27/1999	1439	R. NETZ	sunny	NO							NO	Basin dry
11/05/1999	1340	R. NETZ	sunny	NO							NO	Basin dry
11/19/1999	1337	R. NETZ	sunny	NO							NO	Basin dry
12/10/1999	0857	R. NETZ	cold/sunny	NO							NO	Basin dry
12/22/1999	1400	R. NETZ	Ptly. cloudy	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

SITE	RAIL CUT POND
SITE NUMBER	007

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	0926	R. NETZ	cold/sunny	NO							NO	damp basin
01/29/1999	1439	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1439	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	1120	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1655	R. NETZ	cool/clear	NO							NO	Basin dry
03/26/1999	1155	R. NETZ	cool/clear	NO							NO	Basin dry
04/15/1999	1330	R. NETZ	sunny	NO							NO	Basin dry
04/25/1999	1535	R. NETZ	sunny	NO							NO	Basin dry
05/06/1999	830	R. NETZ	sunny	NO							NO	Basin dry
05/19/1999	1645	R. NETZ	sunny	NO							NO	Basin dry
06/10/1999	1018	R. NETZ	sunny	NO							NO	Basin dry
06/26/1999	1420	R. NETZ	sunny	NO							NO	Basin dry
07/09/1999	1513	R. NETZ	cloudy	NO							NO	DAMP
07/22/1999	1130	R. NETZ	rainy	NO							NO	DAMP
08/06/1999	1330	R. NETZ	rainy	NO							NO	DAMP
08/27/1999	1535	R. NETZ	rainy	NO							NO	DAMP
09/10/1999	1345	R. NETZ	cool/clear	NO							NO	DAMP
09/24/1999	1545	R. NETZ	cool/clear	NO							NO	DAMP
10/08/1999	830	R. NETZ	sunny	NO							NO	Basin dry
10/27/1999	1645	R. NETZ	sunny	NO							NO	Basin dry
11/05/1999	1018	R. NETZ	sunny	NO							NO	Basin dry
11/19/1999	1420	R. NETZ	sunny	NO							NO	Basin dry
12/10/1999	0826	R. NETZ	cold/sunny	NO							NO	Basin dry
12/22/1999	1339	R. NETZ	Ptly. cloudy	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	OLD COARSE REFUSE BASIN
OUTFALL NUMBER:	008

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1009	R. NETZ	cold/sunny	NO							NO	damp Basin
01/29/1999	1512	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1145	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	925	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1425	R. NETZ	cool/clear	NO							NO	Basin dry
03/26/1999	1015	R. NETZ	cool/clear	NO							NO	Basin dry
04/15/1999	1110	R. NETZ	sunny	NO							NO	Basin dry
04/25/1999	1355	R. NETZ	sunny	NO							NO	Basin dry
05/06/1999	935	R. NETZ	sunny	NO							NO	Basin dry
05/19/1999	1455	R. NETZ	sunny	NO							NO	Basin dry
06/10/1999	1410	R. NETZ	sunny	NO							NO	Basin dry
06/26/1999	1345	R. NETZ	sunny	NO							NO	Basin dry
07/09/1999	1430	R. NETZ	cloudy	NO							NO	DAMP
07/22/1999	1010	R. NETZ	rainy	NO							NO	DAMP
08/06/1999	1110	R. NETZ	rainy	NO							NO	1" water
08/27/1999	1355	R. NETZ	rainy	NO							NO	1" water
09/10/1999	1120	R. NETZ	cool/clear	NO							NO	Basin dry
09/24/1999	1410	R. NETZ	cool/clear	NO							NO	Basin dry
10/08/1999	935	R. NETZ	sunny	NO							NO	Basin dry
10/27/1999	1455	R. NETZ	sunny	NO							NO	Basin dry
11/05/1999	1410	R. NETZ	sunny	NO							NO	Basin dry
11/19/1999	1345	R. NETZ	sunny	NO							NO	Basin dry
12/10/1999	0909	R. NETZ	cold/sunny	NO							NO	Basin dry
12/22/1999	1412	R. NETZ	Ptly. cloudy	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

STATION	PASTURE POND
UPDES NUMBER	009

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1021	R. NETZ	cold/sunny	NO							NO	Muddy basin
01/29/1999	1527	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1330	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	955	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1438	R. NETZ	cool/clear	NO							NO	Basin dry
03/26/1999	1030	R. NETZ	cool/clear	NO							NO	Basin dry
04/15/1999	1120	R. NETZ	sunny	NO							NO	Basin dry
04/25/1999	1415	R. NETZ	sunny	NO							NO	Basin dry
05/06/1999	945	R. NETZ	sunny	NO							NO	Basin dry
05/19/1999	1510	R. NETZ	sunny	NO							NO	Basin dry
06/10/1999	940	R. NETZ	sunny	NO							NO	Basin dry
06/26/1999	1350	R. NETZ	sunny	NO							NO	Basin dry
07/09/1999	1440	R. NETZ	cloudy	NO							NO	1' ft. water
07/22/1999	1020	R. NETZ	rainy	NO							NO	3' ft. water
08/06/1999	1120	R. NETZ	rainy	NO							NO	1' ft. water
08/27/1999	1415	R. NETZ	rainy	NO							NO	1' ft. water
09/10/1999	1130	R. NETZ	cool/clear	NO							NO	DAMP
09/24/1999	1425	R. NETZ	cool/clear	NO							NO	DAMP
10/08/1999	945	R. NETZ	sunny	NO							NO	Basin dry
10/27/1999	1510	R. NETZ	sunny	NO							NO	Basin dry
11/05/1999	940	R. NETZ	sunny	NO							NO	Basin dry
11/19/1999	1350	R. NETZ	sunny	NO							NO	Basin dry
12/10/1999	0921	R. NETZ	cold/sunny	NO							NO	Basin dry
12/22/1999	1427	R. NETZ	Ptly. cloudy	NO							NO	Basin dry

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	COARSE REFUSE TOE POND
OUTFALL NUMBER:	012

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	0928	R. NETZ	cold/sunny	NO							NO	Muddy basin
01/29/1999	1446	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1430	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	1110	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1645	R. NETZ	cool/clear	NO							NO	DAMP
03/26/1999	1150	R. NETZ	cool/clear	NO							NO	DRY
04/15/1999	1345	R. NETZ	sunny	NO							NO	DRY
04/25/1999	1525	R. NETZ	sunny	NO							NO	DRY
05/06/1999	835	R. NETZ	sunny	NO							NO	DRY
05/19/1999	1630	R. NETZ	sunny	NO							NO	DRY
06/10/1999	1015	R. NETZ	sunny	NO							NO	DRY
06/26/1999	1410	R. NETZ	sunny	NO							NO	DRY
07/09/1999	1508	R. NETZ	cloudy	NO							NO	3" WATER
07/22/1999	1115	R. NETZ	rainy	NO							NO	6" WATER
08/06/1999	1345	R. NETZ	rainy	NO							NO	1" ft water
08/27/1999	1525	R. NETZ	rainy	NO							NO	1" ft water
09/10/1999	1400	R. NETZ	cool/clear	NO							NO	DRY
09/24/1999	1545	R. NETZ	cool/clear	NO							NO	DRY
10/08/1999	835	R. NETZ	sunny	NO							NO	DRY
10/27/1999	1630	R. NETZ	sunny	NO							NO	DRY
11/05/1999	1015	R. NETZ	sunny	NO							NO	DRY
11/19/1999	1410	R. NETZ	sunny	NO							NO	DRY
12/10/1999	0828	R. NETZ	cold/sunny	NO							NO	DRY
12/22/1999	1346	R. NETZ	Ptly. cloudy	NO							NO	DRY

Sunnyside Cogeneration Associates
UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	FACILITY SED. POND
OUTFALL NUMBER:	013

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1125	R. NETZ	cold/sunny	NO							NO	damp basin
01/29/1999	1332	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1341	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	1020	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1450	R. NETZ	cool/clear	NO							NO	DRY BASIN
03/26/1999	1045	R. NETZ	cool/clear	NO							NO	DRY BASIN
04/15/1999	1130	R. NETZ	sunny	NO							NO	DRY BASIN
04/25/1999	1425	R. NETZ	sunny	NO							NO	DRY BASIN
05/06/1999	953	R. NETZ	sunny	NO							NO	DRY BASIN
05/19/1999	1525	R. NETZ	sunny	NO							NO	DRY BASIN
06/10/1999	1000	R. NETZ	sunny	NO							NO	2" WATER
06/26/1999	1400	R. NETZ	sunny	NO							NO	DRY BASIN
07/09/1999	1450	R. NETZ	cloudy	NO							NO	6" WATER
07/22/1999	1030	R. NETZ	rainy	NO							NO	3' WATER
08/06/1999	1130	R. NETZ	rainy	NO							NO	6 inches water
08/27/1999	1425	R. NETZ	rainy	NO							NO	6 inches water
09/10/1999	1145	R. NETZ	cool/clear	NO							NO	DRY BASIN
09/24/1999	1443	R. NETZ	cool/clear	NO							NO	DRY BASIN
10/08/1999	953	R. NETZ	sunny	NO							NO	DRY BASIN
10/27/1999	1525	R. NETZ	sunny	NO							NO	DRY BASIN
11/05/1999	1000	R. NETZ	sunny	NO							NO	DRY BASIN
11/19/1999	1400	R. NETZ	sunny	NO							NO	DRY BASIN
12/10/1999	830	R. NETZ	sunny/cold	NO							NO	DRY BASIN
12/20/1999	850	R. NETZ	sunny/cold	NO							NO	DRY BASIN

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	COAL PILE SED. POND
OUTFALL NUMBER:	014

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1123	R. NETZ	cold/sunny	NO							NO	Muddy basin
01/29/1999	1331	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1338	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	1015	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1445	R. NETZ	cool/clear	NO							NO	DRY BASIN
03/26/1999	1036	R. NETZ	cool/clear	NO							NO	DRY BASIN
04/15/1999	1125	R. NETZ	sunny	NO							NO	DRY BASIN
04/25/1999	1420	R. NETZ	sunny	NO							NO	DRY BASIN
05/06/1999	949	R. NETZ	sunny	NO							NO	DRY BASIN
05/19/1999	1515	R. NETZ	sunny	NO							NO	DRY BASIN
06/10/1999	920	R. NETZ	sunny	NO							NO	DRY BASIN
06/26/1999	1355	R. NETZ	sunny	NO							NO	DRY BASIN
07/09/1999	1445	R. NETZ	cloudy	NO							NO	6" WATER
07/22/1999	1026	R. NETZ	rainy	NO							NO	1' ft. WATER
08/06/1999	1125	R. NETZ	rainy	NO							NO	6" WATER
08/27/1999	1420	R. NETZ	rainy	NO							NO	6" WATER
09/10/1999	1150	R. NETZ	cool/clear	NO							NO	DRY BASIN
09/24/1999	1450	R. NETZ	cool/clear	NO							NO	DRY BASIN
10/08/1999	949	R. NETZ	sunny	NO							NO	DRY BASIN
10/27/1999	1515	R. NETZ	sunny	NO							NO	DRY BASIN
11/05/1999	920	R. NETZ	sunny	NO							NO	DRY BASIN
11/19/1999	1355	R. NETZ	sunny	NO							NO	DRY BASIN
12/10/1999	0923	R. NETZ	cold/sunny	NO							NO	DRY BASIN
12/22/1999	1431	R. NETZ	cold/sunny	NO							NO	DRY BASIN

Sunnyside Cogeneration Associates
UPDES Monitoring Sites
Field Data Sheets

SITE NAME	ASH LANDFILL SED. BASIN
OUTFALL NUMBER	015

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1019	R. NETZ	cold/sunny	NO							NO	damp basin
01/29/1999	1230	R. NETZ	snowy	NO							NO	1" SNOW
02/13/1999	1410	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	1050	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1630	R. NETZ	cool/clear	NO							NO	DRY BASIN
03/26/1999	1110	R. NETZ	cool/clear	NO							NO	DRY BASIN
04/15/1999	1225	R. NETZ	sunny	NO							NO	DRY BASIN
04/25/1999	1500	R. NETZ	sunny	NO							NO	DRY BASIN
05/06/1999	843	R. NETZ	sunny	NO							NO	DRY BASIN
05/19/1999	1608	R. NETZ	sunny	NO							NO	DRY BASIN
06/10/1999	1010	R. NETZ	sunny	NO							NO	DRY BASIN
06/26/1999	1415	R. NETZ	sunny	NO							NO	DRY BASIN
07/09/1999	1500	R. NETZ	cloudy	NO							NO	DAMP
07/22/1999	1100	R. NETZ	rainy	NO							NO	1' water
08/06/1999	1225	R. NETZ	rainy	NO							NO	6 inches water
08/27/1999	1500	R. NETZ	rainy	NO							NO	6 inches water
09/10/1999	1248	R. NETZ	cool/clear	NO							NO	DRY BASIN
09/24/1999	1525	R. NETZ	cool/clear	NO							NO	DRY BASIN
10/08/1999	843	R. NETZ	sunny	NO							NO	DRY BASIN
10/27/1999	1608	R. NETZ	sunny	NO							NO	DRY BASIN
11/05/1999	1010	R. NETZ	sunny	NO							NO	DRY BASIN
11/19/1999	1415	R. NETZ	sunny	NO							NO	DRY BASIN
12/10/1999	1300	R. NETZ	sunny/cold	NO							NO	DRY BASIN
12/20/1999	1230	R. NETZ	sunny/cold	NO							NO	DRY BASIN

Sunnyside Cogeneration Associates
DOGM UPDES Monitoring Sites
Field Data Sheets

LOCATIONS:	BORROW AREA BASIN
OUTFALL NUMBER:	016

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	1102	R. NETZ	cold/sunny	NO							NO	DAMP
01/29/1999	1206	R. NETZ	snowy	NO							NO	1" snow
02/13/1999	1125	R. NETZ	cold/sunny	NO							NO	DAMP
02/26/1999	920	R. NETZ	cold/sunny	NO							NO	DAMP
03/13/1999	1415	R. NETZ	cool/clear	NO							NO	DRY BASIN
03/26/1999	1010	R. NETZ	cool/clear	NO							NO	DRY BASIN
04/15/1999	1100	R. NETZ	sunny	NO							NO	DRY BASIN
04/25/1999	1350	R. NETZ	sunny	NO							NO	DRY BASIN
05/06/1999	930	R. NETZ	sunny	NO							NO	DRY BASIN
05/19/1999	1445	R. NETZ	sunny	NO							NO	DRY BASIN
06/10/1999	1358	R. NETZ	sunny	NO							NO	DRY BASIN
06/26/1999	1334	R. NETZ	sunny	NO							NO	DRY BASIN
07/09/1999	1425	R. NETZ	cloudy	NO							NO	DAMP
07/22/1999	955	R. NETZ	rainy	NO							NO	DAMP
08/06/1999	1100	R. NETZ	rainy	NO							NO	DAMP
08/27/1999	1350	R. NETZ	rainy	NO							NO	DAMP
09/10/1999	1100	R. NETZ	cool/clear	NO							NO	DAMP
09/24/1999	1350	R. NETZ	cool/clear	NO							NO	DAMP
10/08/1999	930	R. NETZ	sunny	NO							NO	DRY BASIN
10/27/1999	1445	R. NETZ	sunny	NO							NO	DRY BASIN
11/05/1999	1358	R. NETZ	sunny	NO							NO	DRY BASIN
11/19/1999	1334	R. NETZ	sunny	NO							NO	DRY BASIN
12/10/1999	0902	R. NETZ	cold/sunny	NO							NO	DRY BASIN
12/22/1999	1406	R. NETZ	cold/sunny	NO							NO	DRY BASIN

Sunnyside Cogeneration Associates
UPDES Monitoring Sites
Field Data Sheets

[illegible] OUTFALL NUMBER	PHASE II ASH LANDFILL SED. BASIN 017

Date	Time	Personnel	Weather	Discharge Present	Flow (gpm)	Water Level (feet)	Temp (F)	pH	SC (umhos)	DO mg/l	Sample Taken	Observations
01/11/1999	10:25	R.Netz	cold	NO							NO	4' water
01/29/1999	12:40	R. Netz	snowy	NO							NO	2' water
02/13/1999	14:25	R. Netz	cold	NO							NO	2' water
02/26/1999	10:35	R. Netz	cold	NO							NO	2' water
03/13/1999	16:40	R. Netz	cold	NO							NO	1.5' water
03/26/1999	11:20	R. Netz	cold	NO							NO	1.5' water
04/15/1999	12:40	R. Netz	cold	NO							NO	1' water
04/25/1999	15:15	R. Netz	cold	NO							NO	1' water
05/06/1999	940	R. NETZ	sunny	NO							NO	1' water
05/19/1999	1455	R. NETZ	sunny	NO							NO	1' water
06/10/1999	1015	R. NETZ	sunny	NO							NO	damp
06/26/1999	1425	R. NETZ	sunny	NO							NO	damp
07/09/1999	1515	R. NETZ	sunny	NO							NO	damp
07/22/1999	1115	R. NETZ	sunny	NO							NO	1' water
08/06/1999	1230	R. NETZ	rainy	NO							NO	2' water
08/27/1999	1515	R. NETZ	rainy	NO							NO	2' water
09/10/1999	1300	R. NETZ	cold	NO							NO	1' ft water
09/24/1999	1545	R. NETZ	cold	NO							NO	1' ft water
10/08/1999	900	R. NETZ	sunny	NO							NO	1' ft water
10/27/1999	1620	R. NETZ	sunny	NO							NO	1' ft water
11/05/1999	1025	R. NETZ	sunny	NO							NO	1' ft water
11/19/1999	1430	R. NETZ	sunny	NO							NO	1' ft water
12/10/1999	1325	R. NETZ	sunny/cold	NO							NO	1' ft water
12/20/1999	1255	R. NETZ	sunny/cold	NO							NO	1' ft water

ATTACHMENT "B"

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011958
Project: BASELINE
Sample Desc: ICE 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:30
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	575	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	472	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	28	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), MG/l	479	10		CAL	
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	12/ 8/99 11:15	EPA 160.5	LPS
Sulfate, mg/L	389	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,100	10	12/ 9/99 11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	8	1	12/ 8/99 11:20	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	63	0.2	12/13/99 2:40	EPA 200.7	EG
Calcium (D), as Ca, mg/L	66	0.2	12/10/99 12:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.19	0.02	12/13/99 2:40	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.05	0.02	12/10/99 12:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	78	0.2	12/13/99 2:40	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011958
Project: BASELINE
Sample Desc: ICE 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:30
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	83	0.2	12/10/99 12:38	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	12/13/99 2:40	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	12/10/99 12:38	EPA 200.7	EG
Potassium (D), as K, mg/L	3.2	0.2	12/10/99 12:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	180	0.8	12/10/99 12:38	EPA 200.7	EG
Oil & Grease, mg/L	< 6	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/L	18.04				
Anion Sum, meq/L	18.31				
% Cation/Anion Difference,	0.76				
Temperature, Receiving, c	0.5		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011959
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99 Time Sampled: 10:45
Date Submitted: 12/ 8/99 Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	565	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	464	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	25	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), mg/L ,10	460	5		CAL	
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	12/ 8/99 11:15	EPA 160.5	LPS
Sulfate, mg/L	363	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,020	10	12/ 9/99 11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	2	1	12/ 8/99 11:20	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	67	0.2	12/10/99 12:36	EPA 200.7	EG
Calcium (D), as Ca, mg/L	74	0.2	12/10/99 12:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.11	0.02	12/10/99 12:36	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.04	0.02	12/10/99 12:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	71	0.2	12/10/99 12:36	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011959
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99 Time Sampled: 10:45
Date Submitted: 12/ 8/99 Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	78	0.2	12/10/99 12:38	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	12/10/99 12:36	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	12/10/99 12:38	EPA 200.7	EG
Potassium (D), as K, mg/L	3.0	0.2	12/10/99 12:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	170	0.8	12/10/99 12:38	EPA 200.7	EG
Oil & Grease, mg/L	< 6	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/l	17.59				
Anion Sum, meq/L	17.52				
% Cation/Anion Difference,	-0.18				
Temperature, Receiving, c	1.5		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 12/27/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34480
Lab #: 99-U012185
Sample Desc: CRB
Sample Matrix: WATER
Date Sampled: 12/12/99
Date Submitted: 12/14/99

Time Sampled: 9:30
Time Received: 9:45

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	425	1	12/20/99 8:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/20/99 8:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	349	1	12/20/99 8:00	SM 2320B	TSM
Chloride (D), mg/L	121	1	12/17/99 13:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	1,940	0.2	12/23/99 14:39	CAL	RIF
Hardness Index: Very Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	12/14/99 10:45	EPA 160.5	LPS
Sulfate, mg/L	2,360	500	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	4,460	10	12/16/99 11:30	EPA 160.1	LPS
Total Suspended Solids, mg/L	2	1	12/14/99 10:50	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	380	0.2	12/14/99 10:38	EPA 200.7	EG
Calcium (D), as Ca, mg/L	360	0.2	12/15/99 10:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	< 0.02	0.02	12/14/99 10:38	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	12/15/99 10:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	240	0.2	12/14/99 10:38	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	230	0.2	12/15/99 10:38	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 12/27/99

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34480
Lab #: 99-U012185
Sample Desc: CRB
Sample Matrix: WATER
Date Sampled: 12/12/99
Date Submitted: 12/14/99

Time Sampled: 9:30
Time Received: 9:45

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Manganese (T), as Mn, mg/L	0.01	0.01	12/14/99 10:38	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.01	0.01	12/15/99 10:38	EPA 200.7	EG
Potassium (D), as K, mg/L	17	0.2	12/15/99 10:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	370	0.2	12/15/99 10:38	EPA 200.7	EG
Oil & Grease, mg/L	< 6	6	12/16/99 15:01	SM18 5520B	PNM
Cation Sum, meq/L	53.42				
Anion Sum, meq/L	59.51				
% Cation/Anion Difference, meq/L	5.40				
Temperature, Receiving, C	6.5		12/14/99 9:45		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011960
Project: BASELINE
Sample Desc: Well 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99 Time Sampled: 11:15
Date Submitted: 12/ 8/99 Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	509	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	417	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	19	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	313	0.2	1/14/00 13:59	CAL	RIF
Hardness Index: Hard Water					
Sulfate, mg/L	290	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	900	10	12/ 9/99 11:45	EPA 160.1	LPS
Calcium (T), as Ca, mg/L	61	0.2	12/10/99 12:36	EPA 200.7	EG
Calcium (D), as Ca, mg/L	51	0.2	12/10/99 12:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.02	0.02	12/10/99 12:36	EPA 200.7	EG
Iron (D), as Fe, mg/L	< 0.02	0.02	12/10/99 12:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	54	0.2	12/10/99 12:36	EPA 200.7	EG
Magnesium (D), as Mg, mg/L	45	0.2	12/10/99 12:38	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	12/10/99 12:36	EPA 200.7	EG

Approved By: Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD ANALYTICAL LABORATORIES

Date: 1/14/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011960
Project: BASELINE
Sample Desc: Well 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 11:15
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Manganese (D), as Mn, mg/L	< 0.01	0.01	12/10/99 12:38	EPA 200.7	EG
Potassium (D), as K, mg/L	2.2	0.2	12/10/99 12:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	110	0.2	12/10/99 12:38	EPA 200.7	EG
Oil & Grease, mg/L	7	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/L	11.09				
Anion Sum, meq/L	14.92				
% Cation/Anion Difference,	14.70				
Temperature, Receiving, c	2.0		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: [signature]
Ron Fuller, Laboratory Director

MRL = Report detection limit

(generic.rpt)

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH - FORD, INC.

ANALYSIS REQUEST FORM/CHAIN OF CUSTODY

COMPANY: Sunnyside Cogeneration Ass.
ADDRESS: #1 Power Plant Road
CITY/STATE/ZIP: Sunnyside, Utah
PHONE #: 885-4476 FAX #: 888-2538
COMPANY CONTACT: Rusty Nutz
PROJECT: Baseline

BILLING NAME:
BILLING ADDRESS:
P.O. #:
TURNAROUND REQUIRED* Normal
*expedited turnaround subject to additional charges

____Mark 'X' for copy to DEQ Div of Drinking Water

Lab ID#	SAMPLE IDENTIFICATION/LOCATION	SAMPLE DATE	SAMPLE TIME	Number of Containers	MATRIX: Water: Drink., Waste, Ground (circle)	Soil / Solid (circle)	Sludge: Solid, Liquid (circle)	Oil	Solvent	Other (specify)	ANALYTES REQUESTED
(X)	1. CRB	12/7	1000	3	X						Base line
	2. ICE 1	12/7	1030	3	X						XXX
	3. F-2	12/7	1045	3	X						not
	4. Well 2	12/7	1115	3	X						filtered
	5.										
	6.										
	7.										
	8.										
	9.										
	10.										

Sampled by: (print)
Sampled by: (signature)

Special Instructions: (X) CRB Damaged in Shipment - Will need to be resampled

	Date/Time		Date/Time
Relinquished by: (signature) Rusty Nutz	12/7/99 1115	Received by (signature): M Montgomery	12-7-99 1320
Relinquished by: (signature)		Received by (signature):	12-8-99 @ 1017
Relinquished by: (signature)		Received by (signature):	

CHEMTECH-FORD, INC. 6100 South Stratler (360 West) Murray, UT 84107 Phone 801-262-7299 Fax 801-262-7378

NET 30 DAYS: 1.5% PER MONTH INTEREST CHARGE (18% A.P.R.) CUSTOMER AGREES TO PAY COLLECTION COSTS AND ATTORNEY'S FEES.

WHITE: ORIGINAL YELLOW: CUSTOMER PINK: FILE

CHEMTECH → 8018882538 01/14/00 15:30

CHEMTECH - FORD, INC.

ANALYSIS REQUEST FORM/CHAIN OF CUSTODY

COMPANY: Sunnyside Cogeneration Assoc.
ADDRESS: #1 Power Plant Road
CITY/STATE/ZIP: Sunnyside, Utah
PHONE #: 888-4476 FAX #: 888-2538
COMPANY CONTACT: Rusty Metz
PROJECT: Baseline

BILLING NAME:
BILLING ADDRESS:
P.O. #:
TURNAROUND REQUIRED* Normal
*expedited turnaround subject to additional charge

_____Mark 'X' for copy to DEQ Div of Drinking Water

Lab ID#		SAMPLE IDENTIFICATION/LOCATION	SAMPLE DATE	SAMPLE TIME	Number of Containers	MATRIX: Water: Drink.,Waste,Ground (circle)	Soil / Solid (circle)	Sludge: Solid, Liquid (circle)	Oil	Solvent	Other (specify)	ANALYTES REQUESTED: Basic Lab
	1.	CRB	12/7	1000	3	✓			✓			X
11958	2.	ICE 1	12/7	1030	3	✓			✓			X
11959	3.	F-2	12/7	1045	3	✓			✓			X
11960	4.	Well 2	12/7	1115	3	✓			✓			X
	5.											
	6.											
	7.											
	8.											
	9.											
	10.											

Sampled by: (print)
Sampled by: (signature)
Sample Receiving Temperature: (C) ON ICE

Special Instructions: CRB Damaged in shipping - will need to be resampled

Sample Delivered by Courier:

Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time
Relinquished by: (signature)	Date/Time	Received by (signature):	Date/Time
Relinquished by: (signature)	Date/Time	Received by (signature)	Date/Time

CHEMTECH-FORD, INC. 6100 South Stratler (380 West) Murray, UT 84107 Phone 801-262-7299 Fax 801-262-7378

NET 30 DAYS: 1.5% PER MONTH INTEREST CHARGE (18% A.P.R.) CUSTOMER AGREES TO PAY COLLECTION COSTS AND ATTORNEY'S FEES.

WHITE: ORIGINAL YELLOW: CUSTOMER PINK: FILE

CHEMTECH-FORD

CASE NARRATIVE

Sunnyside Cogeneration
Attn: Rusty Netz
#1 Power Plant Road

Date: 01/28/00
Laboratory Group #: 34360
Pertaining to Sample: 99U-011960
Project ID: Baseline
Page 1 of 1

General Discussion

Sample Well 2 had an initial cation/anion balance difference of 14.7%. The metals were re-analyzed which corrected the cation/anion balance difference to 0.23%.

Ron Fuller
Laboratory Supervisor

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011958
Project: BASELINE
Sample Desc: ICE 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:30
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	575	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	472	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	28	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), MG/l	479	10		CAL	
Hardness Index: Hard Water					
Settleable Solids, mL/L/hr	< 0.1	0.1	12/ 8/99 11:15	EPA 160.5	LPS
Sulfate, mg/L	389	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,100	10	12/ 9/99 11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	8	1	12/ 8/99 11:20	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	63	0.2	12/13/99 2:40	EPA 200.7	EG
Calcium (D), as Ca, mg/L	66	0.2	12/10/99 12:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.19	0.02	12/13/99 2:40	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.05	0.02	12/10/99 12:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	78	0.2	12/13/99 2:40	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011958
Project: BASELINE
Sample Desc: ICE 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:30
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	83	0.2	12/10/99 12:38	EPA 200.7	EG
Manganese (T), as Mn, mg/L	< 0.01	0.01	12/13/99 2:40	EPA 200.7	EG
Manganese (D), as Mn, mg/L	< 0.01	0.01	12/10/99 12:38	EPA 200.7	EG
Potassium (D), as K, mg/L	3.2	0.2	12/10/99 12:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	180	0.8	12/10/99 12:38	EPA 200.7	EG
Oil & Grease, mg/L	< 6	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/L	18.04				
Anion Sum, meq/L	18.31				
% Cation/Anion Difference,	0.76				
Temperature, Receiving, c	0.5		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011959
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:45
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	565	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	464	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	25	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), mg/L ,10 Hardness Index: Hard Water	460	5		CAL	
Settleable Solids, mL/L/hr	< 0.1	0.1	12/ 8/99 11:15	EPA 160.5	LPS
Sulfate, mg/L	363	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	1,020	10	12/ 9/99 11:45	EPA 160.1	LPS
Total Suspended Solids, mg/L	2	1	12/ 8/99 11:20	EPA 160.2	LPS
Calcium (T), as Ca, mg/L	67	0.2	12/10/99 12:36	EPA 200.7	EG
Calcium (D), as Ca, mg/L	74	0.2	12/10/99 12:38	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.11	0.02	12/10/99 12:36	EPA 200.7	EG
Iron (D), as Fe, mg/L	0.04	0.02	12/10/99 12:38	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	71	0.2	12/10/99 12:36	EPA 200.7	EG

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011959
Project: BASELINE
Sample Desc: F-2
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 10:45
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (D), as Mg, mg/L	78	0.2	12/10/99 12:38	EPA 200.7	EG
Manganese (T), as Mn, mg/L	0.02	0.01	12/10/99 12:36	EPA 200.7	EG
Manganese (D), as Mn, mg/L	0.02	0.01	12/10/99 12:38	EPA 200.7	EG
Potassium (D), as K, mg/L	3.0	0.2	12/10/99 12:38	EPA 200.7	EG
Sodium (D), as Na, mg/L	170	0.8	12/10/99 12:38	EPA 200.7	EG
Oil & Grease, mg/L	< 6	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/l	17.59				
Anion Sum, meq/L	17.52				
% Cation/Anion Difference,	-0.18				
Temperature, Receiving, c	1.5		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

CHEMTECH-FORD

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011960
Project: BASELINE
Sample Desc: Well 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99 Time Sampled: 11:15
Date Submitted: 12/ 8/99 Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Alkalinity,as Bicarbonate, mg/L	509	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, as Carbonate, mg/L	< 1	1	12/14/99 12:00	SM 2320B	TSM
Alkalinity, Total (CaCO3), mg/L	417	1	12/14/99 12:00	SM 2320B	TSM
Chloride, mg/L	19	1	12/14/99 10:00	EPA 325.3	TSM
Hardness, (calc), mg CaCO3/L	313	0.2	1/14/00 13:59	CAL	RIF
Hardness Index: Hard Water					
Sulfate, mg/L	290	100	12/15/99 11:00	EPA 375.4	TSM
Total Dissolved Solids, mg/L	900	10	12/ 9/99 11:45	EPA 160.1	LPS
Calcium (T), as Ca, mg/L	68	0.2	1/19/00 10:58	EPA 200.7	JJT
Calcium (D), as Ca, mg/L	68	0.2	1/19/00 10:58	EPA 200.7	JJT
Iron (T), as Fe, mg/L	< 0.02	0.02	1/19/00 10:58	EPA 200.7	JJT
Iron (D), as Fe, mg/L	< 0.02	0.02	1/19/00 10:58	EPA 200.7	JJT
Magnesium (T), as Mg, mg/L	61	0.2	1/19/00 10:38	EPA 200.7	JJT
Magnesium (D), as Mg, mg/L	59	0.2	1/19/00 10:58	EPA 200.7	JJT
Manganese (T), as Mn, mg/L	< 0.01	0.01	1/19/00 10:58	EPA 200.7	JJT

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

Date: 1/28/00

To: Sunnyside Cogeneration Assoc. Fac.
Attn. Rusty Netz
#1 Power Plant Road
Sunnyside, UT 84539

Group #: 34360
Lab #: 99-U011960
Project: BASELINE
Sample Desc: Well 1
Sample Matrix: GROUND WATER
Date Sampled: 12/ 7/99
Date Submitted: 12/ 8/99

Time Sampled: 11:15
Time Received: 10:17

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MINIMUM REPORTING LIMIT (MRL)	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Manganese (D), as Mn, mg/L	< 0.01	0.01	1/19/00 10:58	EPA 200.7	JJT
Potassium (D), as K, mg/L	2.9	0.2	1/19/00 10:58	EPA 200.7	JJT
Sodium (D), as Na, mg/L	150	0.2	1/19/00 10:58	EPA 200.7	JJT
Oil & Grease, mg/L	7	6	12/15/99 11:00	SM18 5520B	PNM
Cation Sum, meq/L	14.85				
Anion Sum, meq/L	14.92				
% Cation/Anion Difference,	0.23				
Temperature, Receiving, c	2.0		12/ 8/99 10:17		CSM

NOTE: Sample received on ice.

Approved By: _____
Ron Fuller, Laboratory Director

MRL = Report detection limit

{generic.rpt}

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905
801 262 7299 PHONE
801 262 7378 FAX

APPENDIX B-5
MINED QUANTITIES

1999 Mined Quantities						
Month	Coarse (tons)	Silt (tons)	Total (tons)	Quarter Sum (tons)	Spoil Pile #1 (cubic yards)	Spoil Pile #2 (cubic yards)
January	47,221	9,954	57,175	152,601	600	0
February	30,894	8,371	39,265			
March	43,698	12,463	56,161			
April	23,532	6,940	30,472	92,353	250	0
May	18,974	5,786	24,760			
June	25,886	11,235	37,121			
July	31,192	10,281	41,473	120,673	500	10,000
August	24,765	11,986	36,751			
September	30,453	11,996	42,449			
October	31,144	9,412	40,556	100,886	1,000	7,500
November	11,210	3,855	15,065			
December	32,419	12,846	45,265			
TOTAL	**351,388**	**115,125**	**466,513**	**466,513**	**2,350**	**17,500**

Refuse Pile / West Cell 07/30/99

Excess Spoil Disposal Area #2 12/22/99

APPENDIX B-6
APPROVAL ORDER FOR AIR QUALITY PERMIT

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Ursula K. Trueman
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.
Web: www.deq.state.ut.us

received
9-1-99

DAQE-691-99

August 13, 1999

James Willey
Sunnyside Cogeneration Associates
250 West Pratt Street, 23rd Floor
Baltimore, MD 21201-2423

Dear Mr. Willey:

Re: Amendment for Approval Order DAQE-586-99, to Establish Source Specific Emission Control Requirements for an Ash Landfill, Carbon County, CDS-A, ATT, PSD NSPS, TITLE V

The attached document is an Approval Order for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Jose Garcia. He may be reached at (801) 536-4096.

Sincerely,

Ursula K. Trueman

Ursula K. Trueman, Executive Secretary
Utah Air Quality Board

UKT:JG:aj

cc: Southeastern Utah District Health Department
Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

AMENDMENT FOR APPROVAL ORDER DAQE-586-99, TO ESTABLISH SOURCE SPECIFIC EMISSION CONTROL REQUIREMENTS FOR AN ASH LANDFILL

Prepared By: Jose Garcia, Engineer
801-536-4096

APPROVAL NUMBER

DAQE-691-99

Date: August 13, 1999

Source Contact

Sunnyside Cogeneration Associates
James Willey
(410) 783-2800

Ursula K. Trueman
Executive Secretary
Utah Air Quality Board

Sunnyside Cogeneration Associates (SCA) owns and operates a waste coal electric generation plant located on Route 123, Sunnyside, Carbon County. SCA has requested an amendment to their current Approval Order DAQE-586-99, to incorporate clarifications and conditions regarding the associated ash landfill operation. The landfill is located on property leased from the City of East Carbon which is located approximately one mile west of the generation facility. The landfill receives ash from the combustion of the high-ash waste coal tailings which is reclaimed from the closed Sunnyside Mine site. Emissions attributable to the ash landfill, mainly fugitive dust, are controlled through the use of watering, compaction, terracing and re-vegetation. An enhanced Prevention of Significant Deterioration (PSD) modeling analysis was performed in accordance with previous Approval Order (AO) requirements which accounted for fugitive dust emissions associated with the existing ash landfill. SCA's ash landfill and other facility installations have been in commercial operation since 1993; therefore, there is no increase in fugitive dust emissions (actual or allowable) associated with this notice. The Utah Division of Air Quality intends to amend SCA's existing AO to include more specific conditions for the landfill operation, including the requirement for developing a fugitive dust control plan. A 30-day public comment period was provided for accepting comments regarding the fugitive dust control plan.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this AO reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order:

General Conditions:

1. This Approval Order (AO) applies to the following company:

Facility Location	Corporate Office Location
Sunnyside Cogeneration	Sunnyside Cogeneration Associates
State Route 123, #1 Powerplant Road	250 West Pratt Street, 23rd Floor
Sunnyside, Utah 84539	Baltimore, Maryland 21201-2423
(435) 888-4476	
(435) 888-2538	

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

State Route 123, #1 Powerplant Road
Sunnyside, Utah 84539
Carbon County

Universal Transverse Mercator (UTM) Coordinate System:

Plant: 4,377.786 kilometers Northing; 552.984 kilometers Easting; Zone 12

Ash Landfill: 4,376.600 kilometers Northing; 550.780 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code Rule 307 (UAC R307), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.

3. Sunnyside Cogeneration Associates shall construct and operate the electric generating plant, consisting of a waste coal fired fluidized bed combustion unit and related plant equipment, and associated surface coal mining and ash landfill operations, according to the information submitted in the Notice of Intent dated December 20, 1985, and additional information received June 22, 1987; April 24, 1990; September 4, 1990; January 17, 1991; February 8, 1991; August 30, 1993; October 9, 1995, and the Air Quality Modeling Study submitted in October, 1996.

4. This AO shall replace and void the AOs dated June 22, 1988 (BAQE-379-88); August 16, 1990 (BAQE-474-90); December 28, 1990 (BAQE-749-90); February 8, 1991(BAQE-063-91); March 8, 1991 (BAQE-158-91); February 7, 1994 (DAQE-0077-94); and July 7, 1999 (DAQE-586-99).

5. At least once per calendar year, all employees or contractors who operate equipment that produces and/or controls emissions to the air shall receive training as to their responsibilities in operating that equipment in order to comply with all relevant conditions of this AO. Applicable training updates must be conducted within 60 days of every time this AO is modified or reissued. Applicable training must also be conducted within 60 days for new employees, re-assigned employees or other contractors who operate equipment that produces and/or controls emissions covered under this AO. This AO shall be made available to all employees or contractors who operate air emission sources at this facility. Records of operator training shall be made available to the executive secretary or executive secretary's representative upon request and the records shall include the two-year period prior to the date of the request.

6. The approved installations consist of the following equipment and related operations located at or adjacent to the facility:

A. Coal surface mining; coal processing; and coal handling/storage operations

B. Limestone and ash handling/storage operations

C. One boiler (fluidized bed with baghouse)

D. Pollution control equipment and monitoring equipment

E. Instrumentation monitoring and control

F. Ash Landfill and related operations

G. Other associated equipment

SCA shall operate the electric generating facility, and associated surface coal mining and ash landfill operations, within the emissions limitations and operating requirements set forth in this AO. A detailed list of the above equipment shall be submitted to the executive secretary within 90 days of the issuance of this AO and shall be attached as Appendix B.

The information listed in Appendix B including the information already submitted to DAQ shall be maintained in conjunction with and considered part of this AO. UDAQ may alter or substitute portions of the pollution control equipment list, at any time, provided SCA submits these alterations for approval to the executive secretary in accordance with R307-401, UAC.

Any future changes or modifications to the equipment and processes approved by this AO that could affect the emissions covered by this AO must be approved in accordance with R307-401, UAC.

7. Visible emissions from the following emission points shall not exceed the following values:

A. Fluidized bed boiler stack - 10% opacity at all times, except for one six-minute period per 60-minute period, during which the opacity shall not exceed 27%

B. Fuel receiving hoppers - 10% opacity

C. Conveying operations - 10% opacity

D. Conveyor transfer points (evacuated to a baghouse) - 7% opacity

E. Bulk storage of coal - 10% opacity

F. Crushing (evacuated to a baghouse) - 7% opacity

G. All baghouses (except for the main boiler stack) - 7% opacity

H. Limestone receiving - 10% opacity

I. Limestone bulk storage - 7% opacity

J. Diesel engine exhaust - 20% opacity

K. Waste coal mining operations, ash landfill operations and related activities - 20% opacity

L. Unpaved roads and other unpaved operational areas - 20% opacity

M. All other point sources - 10% opacity

Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. Opacity observations of intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15-second intervals over a six-minute period shall not apply.

8. Sunnyside Cogeneration Facility shall develop a fugitive dust control plan acceptable to the executive secretary for control of all dust sources associated with the Ash Landfill. The current version of the fugitive dust control plan for the landfill is attached as Appendix C. This plan shall contain sufficient control measures to prevent an increase in PM_{10} emissions above those modeled for this AO. The parameters and assumptions used in the most recent air quality modeling analysis shall not be changed if such change would result in an increase in PM_{10} emissions. The limitations and conditions in the current fugitive dust control plan shall not be changed without prior approval in accordance with R307-401, UAC.

9. All unpaved roads and other unpaved operational areas that are in use by mobile equipment shall be watered or chemically treated to control fugitive dust. If chemical treatment is to be used, the plan must be approved by the executive secretary. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition unless it is below freezing. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

A. Date
B. Number of treatments made, dilution ratio, and quantity
C. Rainfall received, if any, and approximate amount
D. Time of day treatments were made

Records of treatment shall be made available to the executive secretary or executive secretary's representative upon request and the records shall include the two-year period prior to the date of the request.

10. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Haul road speed limits shall be posted. Visible emissions determinations for mobile sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Compliance determinations shall be based on six points, distributed along the length of the haul road or in the operational area, shall be chosen by the executive secretary or the executive secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

11. Paved truck access (haul) roads within the plant boundary shall be periodically watered or cleaned as dry conditions warrant to control fugitive emissions. Records of watering or cleaning paved roads shall be made available to the executive secretary or the executive secretary's representative upon request. The records shall include the two-year period prior to the date of the request.

12. Water sprays or chemical dust suppression sprays shall be installed at all conveyors and conveyor transfer points not otherwise controlled by a baghouse or other systems to control fugitive emissions. In addition, the moisture in the conveyor system must be maintained at a level such that the opacity limitations are met at all crushers and screens. The sprays shall operate whenever dry conditions warrant or as determined necessary by the executive secretary.

13. The sulfur content of any fuel oil burned shall not exceed 0.85 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4239-83. The percent by weight of the sulfur contained in the fuel can be obtained from the fuel oil certifications. Certification of fuels shall be either by SCA own testing or test reports from the fuel marketer. Records of the fuel sulfur content must be kept on site and be available to executive secretary or her representative upon request.

14. In addition to the requirements of this AO, all provisions of 40 CFR 60 NSPS Subparts A and Db apply to this source.

15. The emission rates/concentrations from the main boiler stack shall not exceed any of the following values:

A. 0.025 lb Particulates per 10^6 BTU heat input (stack test every 5-years)

B. i. 0.42 lb SO_2 per 10^6 BTU heat input (30-day rolling average)
ii. 462 lb SO_2 per hour. (3-hr & 24-hr block average).

C. 0.25 lb NO_x per 10^6 BTU heat input (30-day rolling average)

D. 0.085 lb CO per 10^6 BTU heat input (annual stack test)

16. Stack testing to show compliance with the emission limitations of condition shall be performed as specified below:

Emission Point	Pollutant	Testing Status	Test Frequency
Boiler stack	TSP	*	Every 5 yrs
	SO_2	**	Continuous
	NO_x	***	Continuous
	CO	****	annually

Testing Status (To be applied above)

* Initial compliance testing was completed June 8, 1993.

** Initial compliance testing was completed June 8, 1993. SO_2 emissions compliance shall be demonstrated in accordance with 40 CFR 60.8(b), 8(f) and 60.45b.

*** Initial compliance testing was completed June 8, 1993. NO_x emissions compliance shall be demonstrated in accordance with 40 CFR 60.8 and 60.46b.

**** Initial compliance testing was completed June 8, 1993.

17. The test methods used shall be as follows:

A. Particulate - Appropriate methods as described in 40 CFR 60.46b.

B. SO_2 - Appropriate method as described in 40 CFR 60, Appendix A, Method 6, 6a, 6b, or 6c at the option of the owner

C. NO_x - Appropriate method as described in 40 CFR 60.46b

D. CO - Appropriate method as described in 40 CFR 60, Appendix A, Method 10 or 10b. CO emissions shall be converted from a concentration basis (ppm) to a mass emission rate (lb/mmBTU) using a similar method as for NSPS pollutants.

The owner/operator shall comply with 40 CFR 60.46b(b) when conducting compliance testing for PM_{10}, 60.46b (c) and (e) for nitrogen oxides, 60.45b(b) and (c) for sulfur oxides and Condition 15.D for CO.

A pre-test protocol and notification of the test date shall be provided at least 30 days prior to the test. A pretest conference shall be held. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the executive secretary. The emission points shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approvable access shall be provided to the test locations.

The production rate during all compliance testing shall be no less than 52 megawatts or 90% of the production rate at which the facility will be operated. For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three years.

18. Total production of electricity shall not exceed 506,700 megawatt-hours per 12-month period (approximately a 58 gross MW plant). Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the first day of each month, a new

12-month total shall be calculated using the production of the previous 12 months. Records of electricity production shall be kept for all periods when the plant is in operation. Records of electricity production shall be made available to the executive secretary or her representative upon request and shall include a period of two years ending with the date of the request. Compliance with the limitation shall be determined by examination of power sales records and electrical meter records. Both shall be kept on a daily basis.

19. The owner/operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60.48b and 40 CFR 60 Appendix B, Specification 1.

20. The owner/operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60.48b and 40 CFR 60, Appendix B, Specification 2.

21. The owner/operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60, Appendix B, Specification 2 and 40 CFR 60.47b.

To determine compliance with the SO2 mass emission limits (Lbs/Hr), the owner/operator shall install, maintain, calibrate, and operate a continuous stack flow monitoring system or other alternate monitoring methodology acceptable to the executive secretary. Any approved alternate monitoring plan shall be included as Appendix A to this AO. A 15% Relative Accuracy Test Audit (RATA) performance requirement shall apply to the mass emission rate monitoring system.

22. The owner/operator shall install, maintain, calibrate, and operate a continuous monitoring system for measuring the CO_2 or O_2 in the main boiler stack. The monitoring system shall comply with the requirements of 40 CFR 60, Appendix B, Specification 3.

23. The owner/operator shall comply with Section R307-170, UACR. This regulation addresses breakdown reporting requirements for continuous monitoring systems and quarterly report requirements. Also, the company shall comply with all the reporting and record keeping requirements of 40 CFR 60.49b.

24. All continuous monitoring data shall be recorded and shall be kept by the owner/operator for a minimum period of two years after the date on which the emissions occurred, and shall be made available to the executive secretary or her representative upon request.

25. During the pretest conference the owner/operator shall submit a monitoring plan and a quarterly report format to the executive secretary for review and approval/disapproval. The monitoring plan shall include all of the required monitors.

26. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control equipment approved by this AO shall be installed, maintained, and operated according to standard operating practices that will ensure that the air quality limits set forth in this AO will be met. Instructions from the vendor or established maintenance practices that maximize air pollution control shall be used. All maintenance performed on the equipment related to preventing a malfunction, that if should occurs, would result in a violation of the limits or conditions of this AO shall be recorded. Maintenance records shall be made available to executive secretary or her representative upon request, and the records shall include the two-year period prior to the request.

Any necessary controls or monitoring devices on equipment approved by this AO that produces and/or controls emissions shall be installed and operated properly, and be accessible to compliance inspectors. A copy of all the manufacturers' and company's own subsequent operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.

27. The owner/operator shall comply with R307-155, UAC. This rule addresses emission inventory reporting requirements. Each owner or operator of a stationary source subject to this rule shall maintain for a period of two years from the due date of each emission statement a copy of the emission statement submitted to the Division of Air Quality and records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used. These records shall be made available to the executive secretary or executive secretary's representative upon request and the records shall include the two-year period prior to the date of the request

28. The owner/operator shall comply with R307-107, UAC. This rule addresses unavoidable breakdown reporting requirements. Any breakdown lasting longer than two hours shall be reported to the executive secretary within three hours of the breakdown if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. During times other than normal office hours, breakdowns for any period longer than two hours shall be initially reported to the Environmental Health Emergency Response Coordinator. Within seven calendar days of the beginning of any breakdown lasting longer than two hours, a written report shall be submitted to the executive secretary. The owner/operator shall calculate/estimate the excess emissions (amount above AO limits) whenever a breakdown occurs. The total of excess emissions per calendar year shall be reported to the executive

secretary with the inventory submittal, as directed by the executive secretary. The owner or operator of an installation suffering an unavoidable breakdown shall assure that emission limitations and visible emission limitations are exceeded for only as short a period of time as reasonable. The owner or operator shall take all reasonable measures which may include but are not limited to the immediate curtailment of production, operations, or activities at all installations of the source if necessary to limit the total aggregate emissions from the source to no greater than the aggregate allowable emissions averaged over the periods provided in the source's AO.

All records referenced in this AO and in 40 CFR 60 Subpart Db, which are required to be kept by the owner/operator, shall be made available to the executive secretary or executive secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. All records shall be kept for a period of two years a summary of those records that are required as part of this AO is included herein. This summary shall not be considered an additional requirement, but is included for informational purposes only. The condition that requires that these records be kept as part of the compliance with this AO is listed following the individual record. Examples of records to be kept at this source shall include the following as applicable:

Operator training	(Condition number 5)
Water treatment for fugitive dust	(Condition number 9 and 11)
Test results	(Condition number 16)
Production rate	(Condition number 18)
CEMS[1] records	(Condition number 19, 20, 21, 22, and 23)
Maintenance records	(Condition number 26)
Emission inventory	(Condition number 27)
Upset, breakdown episodes	(Condition number 28)

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-401-1, UAC.

The executive secretary shall be notified in writing if the company is sold or changes its name. The notification shall be submitted within 30 days of such action.

Under R307-150-1, UAC, The executive secretary may require a source to submit an emission inventory for any full or partial year on reasonable notice.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

Reorganization or change of rules of the Utah Air Quality Board resulted in the Utah Administrative Code (UAC) numbering being changed for rules cited in this AO. In the future there may be additional changes in the UAC rule numbering and/or content. A document is available that will cross reference old rules with new rules that have been renumbered or changed. If the rules are changed in the future an updated

[1] CEMS = Continuous Emission Monitor System

cross reference will be made available to the public. A change in the rules does not eliminate the requirement to comply with the new referenced rule.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site: http://www.eq.state.ut.us/eqair/aq_home.htm

Annual emissions as currently modeled for this source (including fugitive PM_{10} emissions from waste coal surface mining operations, material handling operations, and the ash landfill operations) are as follows:

	Pollutant	Tons/yr
A.	PM_{10}	144.00
B.	SO_2	1288.00
C.	NO_x	767.00
D.	CO	261.00
E.	VOC	18.00

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration, nonattainment area, maintenance area, and Title V source requirements of the UAC R307. They are not to be used for purposes of determining compliance.

In accordance with the requirements of Title V of the 1990 Clean Air Act, actual emissions of regulated pollutants maybe subject to operating permit fee except for the following:

A. CO
B. Any pollutant that is a regulated air pollutant solely because it is a Class I or II substance subject to a standard promulgated or established by Title VI of the Act, Stratospheric Ozone Protection
C. Any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under Section 112(r) of the Act, Prevention of Accidental Releases
D. Tail pipe emissions.

Regulated air pollutant in R307-415 means any of the following:

(1) Nitrogen oxides or any volatile organic compound;
(2) Any pollutant for which a national ambient air quality standard has been promulgated;
(3) Any pollutant that is subject to any standard promulgated under Section 111 of the Act, Standards of Performance for New Stationary Sources;
(4) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act, Stratospheric Ozone Protection;
(5) Any pollutant subject to a standard promulgated under Section 112, Hazardous Air Pollutants, or other requirements established under Section 112 of the Act, including Sections 112(g), (j), and (r) of the Act, including any of the following:
    (i) Any pollutant subject to requirements under Section 112(j) of the Act, Equivalent Emission Limitation by Permit. If the Administrator fails to promulgate a standard by the date established pursuant to Section 112(e) of the Act, any pollutant for which a subject

source would be major shall be considered to be regulated on the date, 18 months after the applicable date established pursuant to Section 112(e) of the Act;

(ii) Any pollutant for which the requirements of Section 112(g)(2) of the Act (Construction, Reconstruction and Modification) have been met, but only with respect to the individual source subject to Section 112(g)(2) requirement.

Emissions of the following pollutants from all sources, including pre-November 29, 1969 sources, may be subject to the operating permit fee. Both the fees rate and the class of pollutants are subject to change by state, the federal agencies, or both. If the actual emissions are not known, then the operating permit fee will be based on the following amounts:

	Pollutant	Tons/yr
A.	PM_{10}	144.00
B.	SO_2	1288.00
C.	NO_x	767.00
D.	VOC	18.00

Any future modifications to the equipment approved by this order must also be approved in accordance with Section R307-401-1, UACR.

Approved By:

Ursula K. Trueman

Ursula K. Trueman, Executive Secretary
Utah Air Quality Board

APPENDIX A

Approved SO_2 Mass Emission Rate Monitoring Plan

To determine SO2 mass emission rates (Lbs/Hr), the pollutant concentration as determined in accordance with 40 CFR 60.47b, shall be multiplied by the heat input rate per the following formula:

Ms = Es * H

Where:

Ms = The hourly average SO2 emission rate in Lbs/Hr.
Es = The hourly average SO2 emission rate from the existing CEM in Lbs/MMBtu.
H = The hourly average boiler heat input rate (MMBtu/Hr) derived from a parametric relationship between the boiler steam flow and heat input.

The parametric equation is as follows:

MMBtu/Hr = 164 + 1.05 *(Steam Flow in Mlb/Hr)

The use of different coefficients in this parametric equation must be certified by a Relative Accuracy Test Audit (RATA) of the entire SO2 monitoring system.

APPENDIX B

Equipment List and Specifications.

APPENDIX C

Approved Fugitive Dust Control Plan for Sunnyside Ash Landfill

SUNNYSIDE COGENERATION FACILITY

RECEIVED
JUL 0 1 1999
Air Quality

FUGITIVE DUST CONTROL PLAN

1. Introduction

The purposes of this plan are to: (1) identify the primary sources of fugitive dust which result from various activities at Sunnyside's Cogeneration Facility, (2) establish operating/training procedures and work practices which minimize fugitive dust under normal operating conditions (abnormal operating conditions or other extreme or atypical weather events), and, (3) establish record keeping and training procedures.

Sunnyside Cogeneration Facility Operating personnel and Contractors (material handling contractors, general contractors, etc.) are responsible for: (1) implementing the procedures and work practices summarized by this plan, and, (2) documenting compliance with this plan by periodic monitoring of it's effectiveness and implementation. Records demonstrating that the fugitive dust control plan is being implemented will be maintained on site. These records will be made available to inspectors at their request.

The dust control plan is designed to meet the requirements of Utah Code Rules R307-309-3, 4, 5, and 7 using Best Available Control Technology (BACT). This plan must be approved by the Utah Division of Air Quality. Once approved the plan will be an attachment to Sunnyside's Approval Order (DAQE-0077-94).

1.1 Source Information

Sunnyside Cogeneration Associates
State Route 123, #1 Powerplant Road
Sunnyside, Utah 84539
(435) 888-4476

Universal Transverse Mercator (UTM) Coordinate System:

Plant/Coal Pile: 4,377.786 kilometers Northing; 552.984 kilometers Easting; Zone 12
Ash Landfill: 4,376.600 kilometers Northing; 550.780 kilometers Easting; Zone 12

1.2 Process Description

The Sunnyside Cogeneration facility, located in Carbon County, Utah uses waste coal from an abandoned mining operation to fuel a fluidized bed combustion unit feeding a steam turbine capable of producing approximately 58 megawatts of electricity, all of which is sold to Utah Power & Light. The waste coal is transported by truck from the storage piles on site to the coal preparation hopper. The coal is then transported by covered conveyor to a hammer mill and then to a vertical impact crusher. The coal is then sized using vibrating screens and conveyed to storage silos. After proper blending, the coal is then mixed with limestone and fed into a boiler for combustion. The fly/bed ash generated from the combustion is then transferred to silos for storage. Just before loading into transport trucks, the fly/bed ash is mixed, in a pugmill, with enough water to achieve a moisture content of about 16 percent. The material is then transported, by trucks, approximately one mile to the ash landfill site. After the truck is unloaded, the fly/bed ash is graded, watered and compacted.

2.0 Potential Sources of Fugitive Dust

Activities which have the potential to produce fugitive dust at the Sunnyside Cogeneration Facility include: (1) the unloading of ash from the ash silo and the unloading of ash at the ash landfill, (2) wind erosion at both the ash landfill and the waste coal pile, (3) coal processing (conveyors and conveyor transfer points), (4) movement of mobile equipment on the waste coal pile and the ash landfill, and, (5) movement of mobile equipment on all paved and unpaved roadways associated with the SCA project.

See attached drawings of source areas:

3.0 Monitoring

Daily visual observation shall be conducted by one or more of the following individuals: (1) all equipment operators, (2) the Materials Handling Superintendent or his designee, (3) the Operations Supervisor responsible for plant operations and/or, (4) the Plant/Environmental Engineer. (Typically, the daily visual inspections will be conducted by the Water Truck Driver). All will be trained in visual observations for fugitive dust control; see section 5.0 Training.

Visual indicators will be used to evaluate the effectiveness of the plan implementation and dust control measures in complying with the approval order conditions, taking into consideration meteorological conditions described in section 6.1.

4.0 Description and Control procedures for Potential Sources of Fugitive Dust

Visual observations are to be used to determine if an appropriate level of control to minimize fugitive dust is occurring. Sunnyside's fugitive dust treatment shall be of sufficient frequency and quantity to maintain the surface material (roadways, ash pile, coal pile, etc.) in a damp/moist condition unless it is below freezing. The watering schedule can be increased/decreased accordingly to contain sufficient control measures to prevent an increase in PM10 emissions.

Identified below are the individuals (**"Dust Control Team"**) responsible for the implementation and maintenance of the fugitive dust control measures:

Title	Telephone #
Plant Manager	888-4476
Environmental/Engineer	888-4476
Operations Supervisor	888-4476
Maintenance Supervisor	888-4476
Savage Coal Manager	888-4436
Savage Ash Landfill Manager	888-4436

Several sources of water may be used for fugitive dust control (when the application of water is the operative control measure): (1) Sedimentation basins, (2) Dragerton Well, (3) Boiler/cooling tower blow down, (4) Service water, and/or (5) raw water reservoirs.

4.1 Waste Coal Pile/Coal Processing and Conveying

Generally, the waste coal being removed from the waste coal pile has a moisture content sufficient to minimize fugitive dust without the need for additional control; however water may be applied, using a water truck, to the coal pile as needed to minimize fugitive dust when coal is being loaded into the haulage trucks as determined by visual observations conducted by the Equipment Operator(s) or Water Truck Driver(s).

The coal processing areas (conveyors and conveyor transfer points, crushers, screens, etc.) have water suppression sprays in place and shall be operational whenever coal is being processed, and/or whenever dry conditions warrant. The moisture in the conveyor system shall be maintained at a level such that opacity limitations are met at all crushers and screens. At all times, conveyors, drop points, and storage silos shall be covered or enclosed as presently constructed. A fire hose station, located outside the motor control room, can be used to further control fugitive emissions in the coal processing yard, if conditions so require.

4.2 Fly Ash Unloading Area

Fly ash is mixed with water, and is then loaded into haulage trucks. The amount of water added to control fugitive dust is determined by visual observation (VO). The operator will be trained to evaluate, through VO, what is and is not expectable amounts of fugitive emissions. Fugitive emissions will be controlled by the volume of water being added during transfer (to the truck) and hauling (to the ash landfill).

Fallout from airborne ash and spillage from haul trucks can accumulate on the paved area surrounding the ash silo area. This area will be cleaned at least once per week (or more frequently if plant operating personnel or the Ash Haul Contractor determine that fugitive dust does not meet monitoring criteria or evidence exists that fly ash is being tracked away from the ash unloading area). Methods used to clean this area include, but are not limited to, flushing the area with water, or removing the material using a front-end loader or vacuum truck. Small ash spills will be swept up and the area will be flushed with water.

4.3 Ash Landfill

Fly ash and bottom ash is delivered to the ash landfill via haulage trucks. It is placed on the ash pile, and is compacted as it is delivered. Water is liberally applied both as a compaction aid and for fugitive dust control. The active area (cell) of the ash landfill is more susceptible to wind erosion and is thus typically confined to the smallest practical working area (eight acres or less).

The inactive portions of the ash landfill are compacted and covered with a vegetative cover soil material, and hydra seeded. Weather permitting the covering, hydra seeding and mulching, typically occurring during the spring and fall of the year.

Ash landfill construction or earth-moving activities will occur in phases per the specific job. Earth-moving activities will occur only when that phase of ash landfill construction is required. Vegetation will remain in place and undisturbed until such time as earth-moving is necessary. Dust control measures (watering, controlling vehicle speed, etc.) will be in place during earth-moving activities.

4.4 Plant Roads and Traffic Areas, including Roadways On and Around the Coal Pile and the Ash Landfill Haulage Roads.

Unpaved Roads: All unpaved roads and other unpaved operational areas that are being used by mobile equipment will be watered or chemically treated to control fugitive dust. Treatment will be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition unless it is below freezing. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas will not exceed 20% opacity. Vehicle speed on the ash haul road is to be limited to a maximum speed of 20 mph (signs will be posted). Should control measures fail to control fugitive dust (20% opacity), vehicle speeds will be reduced accordingly or other control measures will be taken to control fugitive emissions.

Paved Roads, Including Public Hwys 123 and 124: Paved haulage roadways will be periodically watered or cleaned to control fugitive emissions (no water will be applied during adverse weather conditions). Any spillage from haul trucks on the paved roadways will be cleaned immediately by the contractor hauling the ash or other materials. Methods used to clean this area include, but are not limited to, flushing the area with water, removing the material using a front-end loader and/or vacuum truck. Small ash spills will be swept up and the area will be flushed with water.

SCA has also installed a "cattle rack" at the ash landfill to knock ash/mud/dirt from the wheels of the haul trucks to minimize "tracking" of these materials onto the public highway.

5.0 Employee Training

All employees, new employees, newly assigned employees, and contractors (contractors that have the potential to create fugitive emissions) who operate equipment that produces and/or controls fugitive emissions will not conduct jobs/tasks until they have received training on the dust control procedures of this plan and relevant sections of the AO (AO General Conditions - Numbers 5 through 12). Those employees/contractors who have received the initial training will then be retrained on an annual bases.

Training will be conducted by SCA's Plant/Environmental Engineer. Training will include covering all aspects of the dust control plan and relevant sections of the AO. Employees/ and long term contractors will be trained in all jobs/tasks (relating to dust control) not just a specific job or task. The importance of controlling fugitive emissions, facility wide, will be stressed during employee/contractor training.

Employees/contractors will be trained on how to make proper visual observations (VO's). Employees/contractors will be required to do physical visual observations at various facility locations, under trainers supervision, using VO technics listed under section 3.0-Monitoring of this plan and/or using 40 CFR 60, Appendix A, Method 9 technics. Maintenance personnel will be trained on the regulations regarding applicable installed controls, such as water sprays and the requirement for them to maintain such in a working condition.

6.0 Recordkeeping

Records of all actions taken to implement the Fugitive Dust Control Plan will be maintained and shall include the following.

6.1 Dust Control Log Sheets

A daily log (the "Fugitive Dust Control Log") of visual observations and dust control activities shall be maintained. This log is to include (1) the date and time, (2) employee/contractor name, (3) number of treatments, dilution ratio, quantity of water/chemical treatment, (4) location of treatment (paved/unpaved road, ash landfill, etc.), (5) and special weather conditions known or observed, such as precipitation, available ambient temperature, and high wind conditions. A copy of this daily log shall be submitted to the Plant/Environmental Engineer for his/her review and for the review of other Dust Control Team Members.

6.2 Training Log Sheets

Training log sheets will be used to document training being conducted and will include (1) date and time, (2) trainers name, (3) trainees name, (4) type of trainee (new employee/contractor, annual refresher, etc.), and (5) type of training. Appropriate questions and observations will be made to confirm/verify training adequacy.

6.3 Record Retention

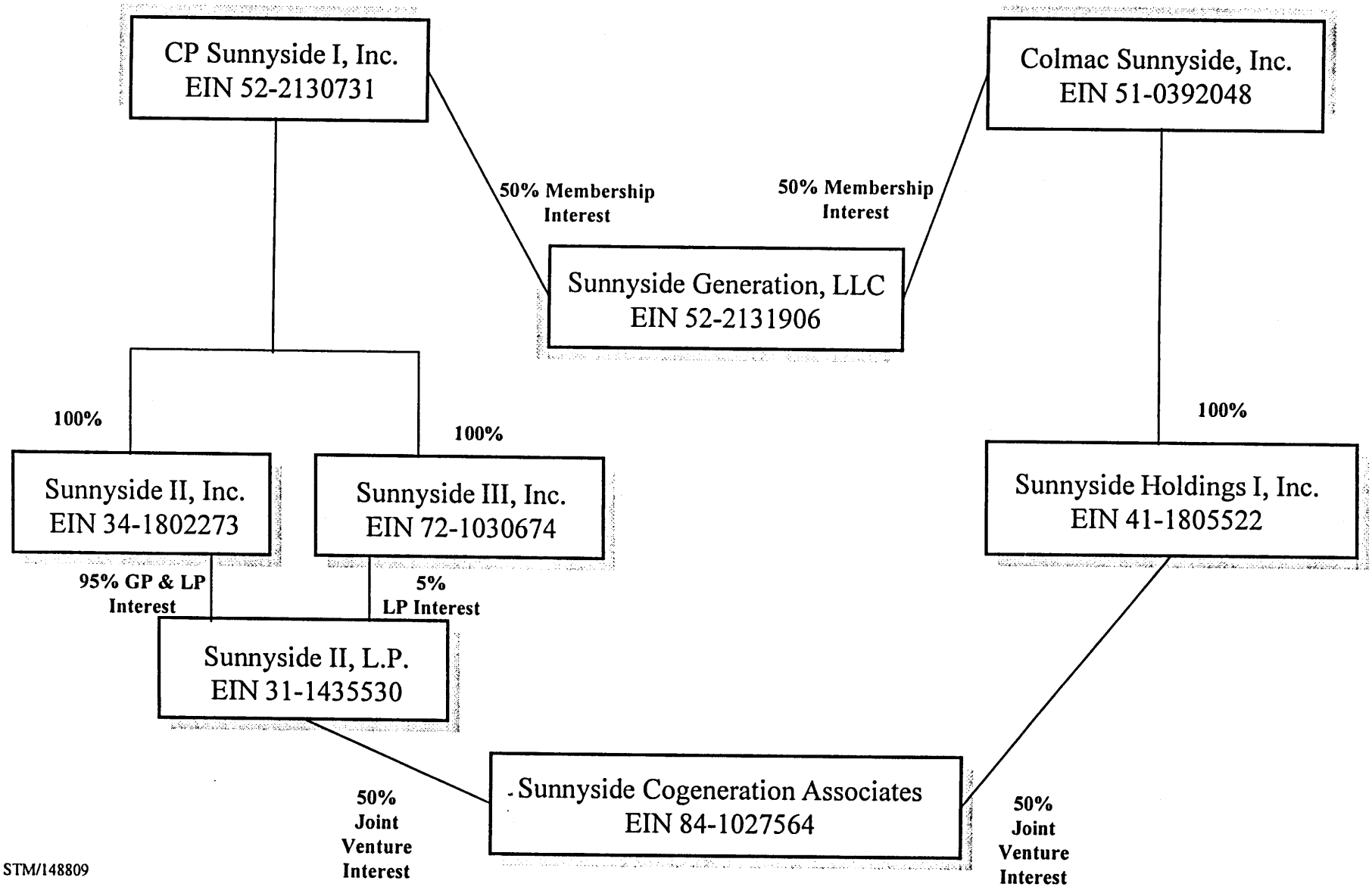
All fugitive dust control logs and training records will be kept on site for a period of two years for UDAQ inspections. Records will be maintained by the Plant/Environmental Engineer.

7.0 Quality Assurance

Sunnyside's Dust Control Team members will conduct bi-annual audits and evaluations of the Fugitive Dust Control Plan and the potential emission sources in order to evaluate the effectiveness of the Fugitive Dust Control Plan. If it is determined that revisions to the plan are necessary, the plan shall be revised and resubmitted to the Division of Air Quality for approval. The audits and evaluations will be documented and retained with the training records.

APPENDIX C
ANNUAL REPORT OF OFFICERS

Sunnyside Organization Chart
as of 10/21/99



STM/148809

Utah Department of Commerce
Division of Corporations & Commercial Code
In person: 160 East 300 South, 1st Floor
Salt Lake City, Utah 84111
Fax: (801) 530-6111
Web site: http://www.commerce.state.ut.us

PROFIT CORPORATION ANNUAL REPORT

THIS FORM MUST BE COMPLETED IN FULL All profit corporations must file their annual reports and corrections within the month of their anniversary date. Failure to do so will result in Delinquency, Revocation or Involuntary Dissolution of the corporate charter.

CORPORATION FILE # 171277

INCORPORATED OR QUALIFIED DATE 12 (MONTH) 1994 (YEAR)

1. CORPORATE NAME: SUNNYSIDE HOLDINGS I, INC.
2. REGISTERED AGENT: C T CORPORATION SYSTEM (NEW AGENT MUST SIGN ABOVE)
3. REGISTERED OFFICE ADDRESS: 50 W BROADWAY 8TH FLOOR (STREET ADDRESS REQUIRED)
4. CITY, STATE & ZIP: SALT LAKE CITY UTAH 84101-2006 (REGISTERED AGENT MUST BE IN UTAH)

WHEN CHANGING THE REGISTERED AGENT THE NEW AGENT MUST SIGN.

5. INCORPORATED IN THE STATE AND UNDER THE LAWS OF: DELAWARE

6. ADDRESS OF THE PRINCIPAL OFFICE IN THE HOME STATE.
(Street Address) 103 SPRINGER BLDG 3411 SILVERSIDE ROAD (State or Country)
(City) WILMINGTON DE (ZIP) 19810

7. BUSINESS PURPOSE:

DOMESTIC, PROFIT CORPORATIONS ARE REQUIRED TO LIST A CORPORATE OFFICER.

OFFICERS

8. ~~PRESIDENT~~ Chairman, CEO Willis S. McLeese
ADDRESS 103 Springer Bldg 3411 Silverside Road
CITY Wilmington STATE DE ZIP 19810

9. ~~VICE~~PRESIDENT Greg Lawyer
ADDRESS Same as Above
CITY STATE ZIP

10. ~~SECRETARY~~ Chief Financial Officer Robert S. McLeese
ADDRESS Same as Above
CITY STATE ZIP

11. TREASURER
ADDRESS
CITY STATE ZIP

FILED
MAR 30 2000
Utah Div. Of Corp. & Comm. Code

ALL DOMESTIC CORPORATIONS MUST LIST THREE (3) DIRECTORS, UNLESS THEY FALL UNDER THE EXCEPTIONS STATED IN SECTION 16-10a-803(1)(b)(i)or(ii).

DIRECTORS

12. DIRECTOR Willis S. McLeese
ADDRESS Same as Above
CITY STATE ZIP

13. DIRECTOR Greg Lawyer
ADDRESS Same as Above
CITY STATE ZIP

14. DIRECTOR
ADDRESS
CITY STATE ZIP

Under penalties of perjury and as an authorized officer, I declare that this annual report and, if applicable, the statement change of registered office and/or agent, has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete.

15. BY [signature] (MUST BE SIGNED BY A CORPORATE OFFICER) 03/30/2000
16. President (Title or Position) Receipt Number: 6352
Amount Paid: $10.00
17. March 27, 2000 (Date)

IF THERE ARE NO CHANGES FROM THE PREVIOUS YEAR, AND YOU HAVE ALL CORPORATE REQUIREMENTS FILLED PERTAINING TO OFFICER, AND DIRECTOR INFORMATION YOU MAY COMPLETE THE COUPON BELOW, DETACH IT FROM THIS FORM, AND RETURN IT TO OUR OFFICE WITH YOUR PAYMENT.

FORM PRNZT2

Utah Department of Commerce
Division of Corporations & Commercial Code
In person: 160 East 300 South, 1st Floor
Salt Lake City, Utah 84111
Fax: (801) 530-6111
Web site: http://www.commerce.state.ut.us

LIMITED PARTNERSHIP ANNUAL REPORT

10-25-99

The following information is on file in this office. Pursuant to Utah Law, all Limited Partnerships must file their annual reports and corrections within the month of their anniversary date. Failure to do so will result in Delinquency, Suspension then Revocation or Involuntary Cancellation of the Limited Partnership registration.

THIS BOX MUST BE COMPLETED

LIMITED PARTNERSHIP NAME, REGISTERED AGENT, REGISTERED OFFICE, CITY, STATE & ZIP

LIMITED PARTNERSHIP # 030624

F 12/30/94

1. SUNNYSIDE II, L.P.
2. C T CORPORATION SYSTEM
3. 50 W BROADWAY 8TH FLOOR
4. SALT LAKE CITY UT 84101-2006

MAKE ALL CORRECTIONS IN THIS COLUMN

(Print New Agent Name) NEW AGENT MUST SIGN

NEW REGISTERED STREET ADDRESS REQUIRED

(New City) UTAH REGISTERED AGENT MUST BE IN UTAH (ZIP)

WHEN CHANGING THE REGISTERED AGENT THE NEW AGENT MUST SIGN.

5. ORGANIZED IN THE STATE AND UNDER THE LAWS OF:
DELAWARE

6. ADDRESS OF THE PRINCIPAL OFFICE IN THE HOME STATE.

1209 ORANGE ST
WILMINGTON DE

111 Market Place, Suite 200
(Street Address)
Baltimore, Maryland 21202
(City) (State or Country & ZIP)

GENERAL PARTNERS

7. NAME SUNNYSIDE II, INC.
ADDRESS ~~1450 POYDRAS ST~~
CITY, STATE & ZIP ~~NEW ORLEANS LA 70112~~

8. NAME
ADDRESS
CITY, STATE & ZIP

9. NAME
ADDRESS
CITY, STATE & ZIP

10. NAME
ADDRESS
CITY, STATE & ZIP

11. NAME
ADDRESS
CITY, STATE & ZIP

12. NAME
ADDRESS
CITY, STATE & ZIP

111 Market Place, Suite 200
Baltimore, Maryland 21202

TO CHANGE GENERAL PARTNERS, A CERTIFICATE OF AMENDMENT MUST BE FILED. PER SECTION 48-2a-202

Under penalties of perjury and as an authorized general partner I declare that this annual report and, if applicable, the statement change of registered office and/or agent has been examined by me and is to the best of my knowledge and belief, true, correct, and complete.

13. BY Jan R Strassmann, secretary
MUST HAVE SIGNATURE OF AUTHORIZED GENERAL PARTNER

14. October 25 1999
(Date)

IF THERE ARE NO CHANGES FROM THE PREVIOUS YEAR, AND YOU HAVE ALL REQUIREMENTS FILLED YOU MAY DETACH THE COUPON BELOW AND RETURN IT IN THE ENCLOSED ENVELOPE WITH YOUR PAYMENT. YOU MAY KEEP THE ABOVE REPORT FOR YOUR RECORDS.

PLEASE MAKE ALL CHANGES ON THE FORM ABOVE

FORM LPTC2

APPENDIX D
MINE MAP