

PERMIT CHANGE TRACKING FORM

DATE RECEIVED	11/1/94	PERMIT NUMBER	ACT/007/035
Title of Proposal:	Statement of	PERMIT CHANGE #	94 J
Description:	N94-26-4-1	PERMITTEE	SCA
		MINE NAME	Sunnyville Refr: Study

	DATE DUE	DATE DONE	RESULT	
			<input type="checkbox"/> ACCEPTED	<input type="checkbox"/> REJECTED
<input type="checkbox"/> 15 DAY INITIAL RESPONSE TO PERMIT CHANGE APPLICATION			Permit Change Classification	
<input type="checkbox"/> Notice of Review Status of proposed permit change sent to the Permittee.			<input type="checkbox"/> Significant Permit Revision	
<input type="checkbox"/> Request additional review copies prior to Division/Other Agency review.			<input type="checkbox"/> Permit Amendment	
<input type="checkbox"/> Notice of Approval of Publication. (If change is a Significant Revision.)			<input type="checkbox"/> Incidental Boundary Change	
<input type="checkbox"/> Notice of request to modify proposed permit change prior to approval.				

REVIEW TRACKING	INITIAL REVIEW		MODIFIED REVIEW		FINAL REVIEW AND FINDINGS	
DOGM REVIEWER	DUE	DONE	DUE	DONE	DUE	DONE
<input type="checkbox"/> Administrative						
<input type="checkbox"/> Biology						
<input type="checkbox"/> Engineering						
<input type="checkbox"/> Geology						
<input type="checkbox"/> Soils						
<input type="checkbox"/> Hydrology						
<input type="checkbox"/> Bonding						
<input type="checkbox"/> AVS Check						

COORDINATED REVIEWS	DUE	DONE	DUE	DONE	DUE	DONE
<input type="checkbox"/> OSMRE						
<input type="checkbox"/> US Forest Service						
<input type="checkbox"/> Bureau of Land Management						
<input type="checkbox"/> US Fish and Wildlife Service						
<input type="checkbox"/> US National Parks Service						
<input type="checkbox"/> UT Environmental Quality						
<input type="checkbox"/> UT Water Resources						
<input type="checkbox"/> UT Water Rights						
<input type="checkbox"/> UT Wildlife Resources						
<input type="checkbox"/> UT State History						
<input type="checkbox"/> Other						

<input type="checkbox"/> Public Notice/Comment/Hearing Complete (If the permit change is a Significant Revision)	<input type="checkbox"/> Permit Change Approval Form signed and approved effective as of this date. <input type="checkbox"/> Permit Change Denied.
<input type="checkbox"/> Copies of permit change marked and ready for MRP.	<input type="checkbox"/> Notice of <input type="checkbox"/> Approval <input type="checkbox"/> Denial to Permittee.
<input type="checkbox"/> Special Conditions/Stipulations written for approval.	<input type="checkbox"/> Copy of Approved Permit Change to File.
<input type="checkbox"/> TA and CHIA modified as required.	<input type="checkbox"/> Copy of Approved Permit Change to Permittee.
<input type="checkbox"/> Permit Change Approval Form ready for approval.	<input type="checkbox"/> Copies to Other Agencies and Price Field Office.

*File #3 ✓
and amend
file*

PERMIT AMENDMENT APPROVAL

Title: <i>Refuse Pile Diversions</i>	PERMIT NUMBER: <i>007/085</i>
Description: <i>Abatement of NOV N94-26-4-1</i>	PERMIT CHANGE #: <i>945</i>
	MINE: <i>Sunnyside Logan</i>
	PERMITTEE: <i>Sunnyside Logan Assoc. etc.</i>

WRITTEN FINDINGS FOR PERMIT APPLICATION APPROVAL

YES, NO or N/A

1. The application is complete and accurate and the applicant has complied with all the requirements of the State Program.	<i>Yes</i>
2. The proposed permit area is not within an area under study or administrative proceedings under a petition, filed pursuant to R645-103-400 or 30 CFR 769, to have an area designated as unsuitable for coal mining and reclamation operations, unless:	<i>Yes</i>
A. The applicant has demonstrated that before January 4, 1977, substantial legal and financial commitments were made in relation to the operation covered by the permit application, or	<i>Yes</i>
B. The applicant has demonstrated that the proposed permit area is not within an area designated as unsuitable for mining pursuant to R645-103-300 and R645-103-400 or 30 CFR 769 or subject to the prohibitions or limitations of R645-103-230.	<i>Yes</i>
3. For coal mining and reclamation operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Division the documentation required under R645-301-114.200.	<i>Yes</i>
4. The Division has made an assessment of the probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.	<i>Yes</i>
5. The operation would not affect the continued existence of endangered or threatened species or result in destruction or adverse modification of their critical habitats, as determined under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).	<i>Yes</i>
6. The Division has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing on the National Register of Historic Places. This finding may be supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Division has determined that no additional protection measures are necessary.	<i>Yes</i>
7. The Applicant has demonstrated that reclamation as required by the State Program can be accomplished according to information given in the permit application.	<i>Yes</i>
8. The Applicant has demonstrated that any existing structure will comply with the applicable performance standards of R645-301 and R645-302.	<i>Yes</i>
9. The Applicant has paid all reclamation fees from previous and existing coal mining and reclamation operations as required by 30 CFR Part 870.	<i>Yes</i>
10. The Applicant has satisfied the applicable requirements of R645-302.	<i>NA</i>
11. The Applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural postmining land use, in accordance with the requirements of R645-301-353.400.	<i>NA</i>

SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT AMENDMENT APPROVAL

YES NO

1. Are there any variances associated with this permit amendment approval? If yes, attach.		<i>X</i>
2. Are there any special conditions associated with this permit amendment approval? If yes, attach. <i>See attached</i>	<i>X</i>	
3. Are there any stipulations associated with this permit amendment approval? If yes, attach.		<i>X</i>

The Division hereby grants approval for Permit Amendment to the Existing Permit by incorporation of the proposed changes described herein and effective the date signed below. All other terms and conditions of the Existing Permit shall be maintained and in effect except as superseded by this Permit Amendment.

Signed *Daron R. Hedlock*
Division of Oil, Gas and Mining

11/9/94
EXECUTIVE DATE

APPLICATION FOR PERMIT CHANGE

Title of Change: **SUNNYSIDE COGENERATION ASSOCIATES**
Redesign of RC-D6 to install 36" Culverts RC-C1, RC-C2, & RC-C3
Associated with NOV N94-26-4-1

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

Mine: **Sunnyside Cogen. Assoc.**

Permittee: **Sunnyside Cogen. Assoc.**

Description - include reason for change and timing required to implement: **Redesign of RC-D6 to install 36" Culverts RC-C1, RC-C2, & RC-C3. Associated with NOV N94-26-4-1. A contractor should be able to install the culverts in a few weeks once the material is available and other work previously scheduled is completed (weather permitting).**

- Yes No 1. Change in the size of the Permit Area? _____ acres increase decrease.
- Yes No 2. Change in the size of the Disturbed Area? _____ acres increase decrease.
- Yes No 3. Will permit change include operations outside the Cumulative Hydrologic Impact Area?
- Yes No 4. Will permit change include operations in hydrologic basins other than currently approved?
- Yes No 5. Does permit change result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes No 6. Does permit change require or include public notice publication?
- Yes No 7. Permit change as a result of a Violation? Violation #**NOV N94-26-4-1**
- Yes No 8. Permit change as a result of a Division Order? D.O. #
- Yes No 9. Permit change as a result of other laws or regulations? Explain:
- Yes No 10. Does permit change require or include ownership, control, right-of-entry, or compliance information?
- Yes No 11. Does the permit change affect the surface landowner or change the post mining land use?
- Yes No 12. Does permit change require or include collection and reporting of any baseline information?
- Yes No 13. Could the permit change have any effect on wildlife or vegetation outside the current disturbed area?
- Yes No 14. Does permit change require or include soil removal, storage or placement?
- Yes No 15. Does permit change require or include vegetation monitoring, removal or revegetation activities?
- Yes No 16. Does permit change require or include construction, modification, or removal of surface facilities? **CULVERT INSTALLATION**
- Yes No 17. Does permit change require or include water monitoring, sediment or drainage control measures?
- Yes No 18. Does permit change require or include certified designs, maps, or calculations?
- Yes No 19. Does permit change require or include underground design or mine sequence and timing?
- Yes No 20. Does permit change require or include subsidence control or monitoring?
- Yes No 21. Have reclamation costs for bonding been provided or revised for any change in the reclamation plan?
- Yes No 22. Is permit change within 100 feet of a public road or perennial stream or 500 feet of an occupied dwelling?
- Yes No 23. Is this permit change coal exploration activity inside outside of the permit area? **N/A**

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

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all aspects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Alane E. Boyd, P.E. 10/31/94
Signed - Name - Position - Date

Subscribed and sworn to before me this _____ day of _____, 1994.
Notary Public

My Commission Expires: _____
Attest: STATE OF UTAH
COUNTY OF _____

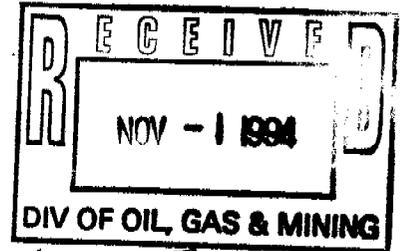
Marilyn Young
3/29/97
Full Lake
NOTARY PUBLIC
MARILYN YOUNG
1121 E. 3900 So. #C-10
Salt Lake City, Utah 84146
My Commission Expires
March 6, 1997
STATE OF UTAH

Received by Oil, Gas & Mining

ASSIGNED PERMIT CHANGE NUMBER

SUNNYSIDE COGENERATION ASSOCIATES

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



October 31, 1994

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

**RE: Project No. EC450593: Sunnyside Cogeneration Associates
Permit Submittal NOV N94-26-4-1 100 year 6 hour Diversion down Refuse Pile**

Dear Daron,

This submittal includes a typical design for the diversion down the existing refuse pile in connection with step one of NOV N94-26-4-1. This diversion was identified as RC-D6 on Plate 7-1D.

This diversion has been re-designed to use a series of 36" culverts (RC-C1, RC-C2, and RC-C3) to convey the storm runoff from the 100 year 6 hour storm. At each terrace, an energy dissipating splash pool will be constructed to slow down the velocity, incorporate the additional runoff water from the terrace, and drop some sediment from the runoff. The 36" culvert diversion is clearly over designed for the current conditions under the regulations, but the permittee wishes to minimize the risk of future flood damage in this area by planning for greater potential flows.

The typical drawing should provide an idea of the diversion intended. Actual construction will be adapted to meet conditions in the field.

SCA intends to begin installing these pipe culverts as soon as possible in order to meet the deadline imposed by the violation. Please review this submittal accordingly, so that the work can proceed without hinderance.

If you have any questions about this submittal, please feel free to call (801) 261-0090.

Sincerely,

David Pearce
Authorized Member, Management Committee

S. Scott Carlson
Engineer- EWP

cc: Brian Burnett, CDN
Bill Malencik, DOGM
Joe Helfrich, DOGM

APPLICATION FOR PERMIT CHANGE

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 Associated with NOV N94-26-4-1

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

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Permittee: **Sunnyside Cogen. Assoc.**

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

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all aspects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Alane E. Boyd, P.E. 10/31/94
 Signed - Name - Position - Date

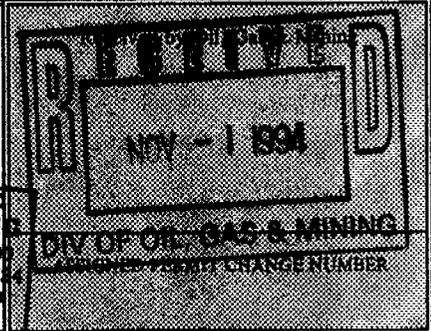
Subscribed and sworn to before me this 31st day of October, 1994

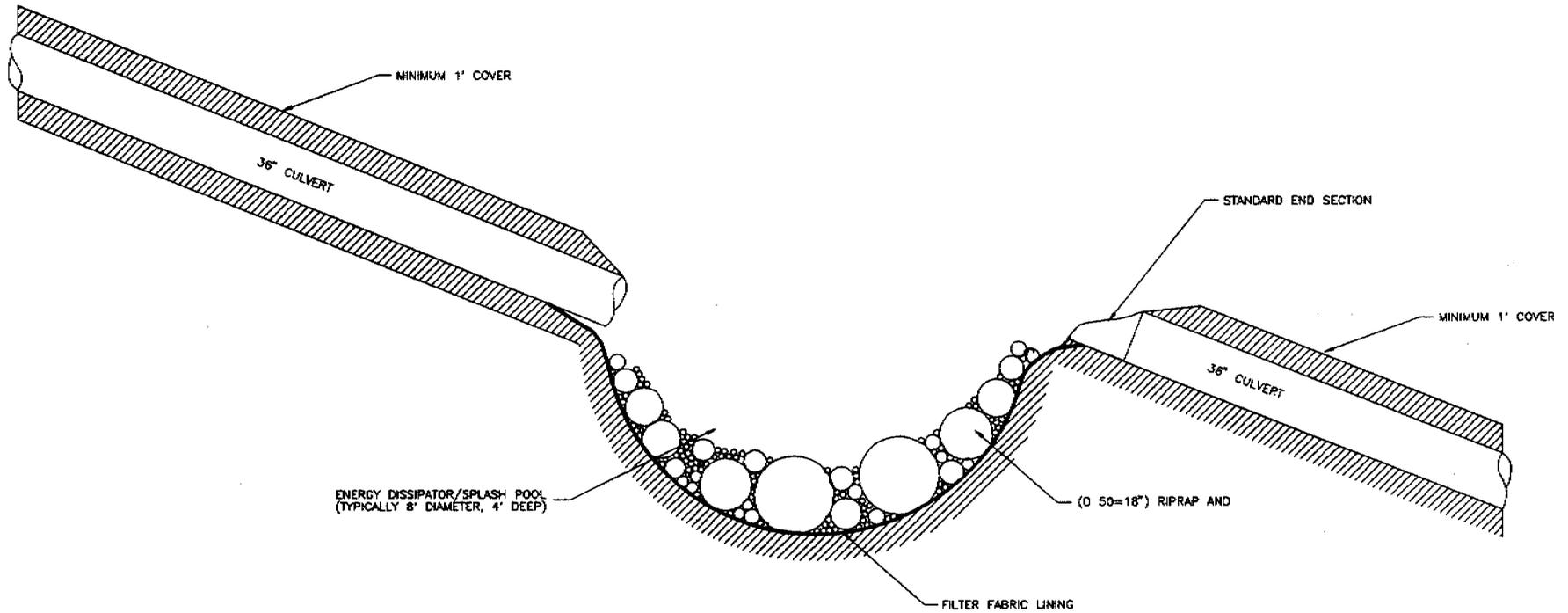
Notary Public

My Commission Expires:
 Attest: STATE OF
 COUNTY OF



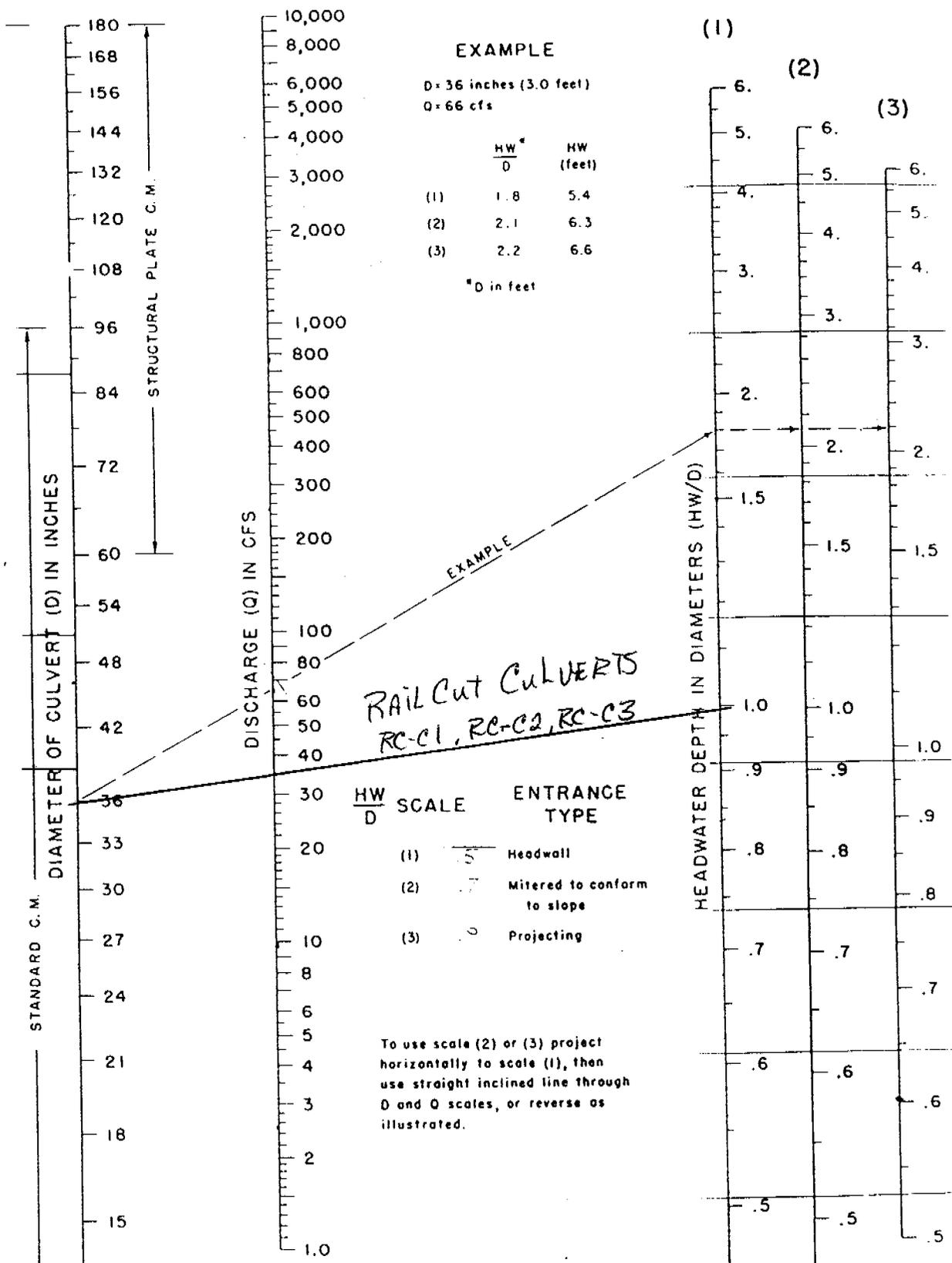
NOTARY PUBLIC
MARILLYN YOUNG
 1121 E. 3900 So. #C-10
 Salt Lake City, Utah 84119
 My Commission Expires
 March 8, 1997
STATE OF UTAH





TYPICAL DRAWING FOR INSTALLING OF 36" CULVERTS
RC-C1, RC-C2, RC-C3 AND ENERGY DISSIPATOR/SPLASH POOLS

OCT 31, 1994



EXAMPLE

D = 36 inches (3.0 feet)
 Q = 66 cfs

	$\frac{HW}{D}$	HW (feet)
(1)	1.8	5.4
(2)	2.1	6.3
(3)	2.2	6.6

*D in feet

*RAIL CUT CULVERTS
 RC-C1, RC-C2, RC-C3*

$\frac{HW}{D}$ SCALE	ENTRANCE TYPE
(1) 5	Headwall
(2) 7	Mitered to conform to slope
(3) 0	Projecting

To use scale (2) or (3) project horizontally to scale (1), then use straight inclined line through D and Q scales, or reverse as illustrated.

**HEADWATER DEPTH FOR
 PIPE CULVERTS
 WITH INLET CONTROL**

OCT 31, 1994

CONDITIONS TO APPROVAL

REFUSE PILE DIVERSION AMENDMENT

SUNNYSIDE COGENERATION ACT/007/035-94J

- 1) Certified "as-built" designs of the refuse diversion construction must be submitted within 30 days of the installation of the diversion. The designs must reflect inlet control on Culvert C-1.
- 2) Appropriate numbers of copies of the amendment must be submitted for incorporation into the mine plan which include appropriate tables modified in Appendix 7-3 to reflect the elimination of Ditch D-6. This can be accomplished at the same time as submittal of the as-built drawings.



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

November 9, 1994

TO: Daron Haddock, Permit Supervisor

FROM: Tom Munson, Reclamation Specialist *TM*

RE: Draft Review, 100 Year 6 Hour Diversion down Refuse Pile, Sunnyside Cogeneration, Sunnyside Cogeneration Associates ACT/007/035-94J, Working file, Carbon County, Utah

Synopsis

The Division received on November 1, 1994 plans to abate NOV N94-26-4-1. This memo reviews this request.

Analysis

The permittee proposes replacing ditch D-6 with culverts C1, C2, C3. The 100 year 6 hour storm peak is 13.3 cfs for ditch D-11, the end point of the system or the ditch prior to the Railcut pond, as referenced in Appendix 7-3 of the permit. The culverts are designed to pass 35 cfs as shown on the attachment submitted with the amendment. Although not shown on the submittal but documented in a phone call with Mr. Scott Carlson of Eckhoff, Watson and Preator on November 9, 1994. The inlet to Culvert C-1 will have a standard culvert end section and berm will funnel all receiving waters into that culvert.

Based on the excess peak flow capacity of 21.7 cfs from the previously approved storm peaks, the 36 inch culverts are approved to be installed.

Findings of Adequacy

The plans are adequate to have the culverts installed in the field.

Findings of Deficiency

1. The permittee must submit any revisions based on as-built designs and must have an engineer stamp all drawings prior to final submittal. As-built drawings must reflect inlet control on Culvert C-1.
2. All information submitted must be incorporated into the mine plan and the appropriate tables modified in Appendix 7-3 to reflect the elimination of Ditch D-6. This can be accomplished at the same time as submittal of as-built drawings.



EW

TELECOPIER TRANSMITTAL SHEET

ECKHOFF, WATSON AND PREATOR ENGINEERING
1121 East 3900 South, Suite C-100, Salt Lake City, Utah 84124-1214
Telephone # (801) 261-0090 Fax # (801) 266-1671

TO:	<u>TOM MUNSON</u>	FAX #:	<u>359 3940</u>
	<u>DOB</u>	PROJECT #:	<u>EC450593</u>
RE:	<u>SCOTT CARLSON</u>	DATE:	<u>9 NOV 94</u>
FROM:	<u>FLOW IN DIVERSIONS</u>		

NUMBER OF PAGES INCLUDING TRANSMITTAL SHEET: 2

MESSAGE: DATA ABOUT PEAK FLOWS
FROM APPX 7-3 RAILEUT POND DRAINAGE

$K = \text{Travel time through diversion.}$ $X = \frac{1}{2} \frac{\text{Velocity}}{(1.7 + \text{Velocity})}$

D6 was replaced with culverts C1, C2, C3

RESULTS

STORM RUNOFF VOLUMES AND PEAK FLOWS

Storm Event	Total Runoff (acft)	Total Sediment (tons)	Pond Stage Elevation	D1 cfs	D2 cfs	D3 cfs	D4 cfs	D5 cfs	D6 cfs	D7 cfs	D8 cfs	D9 cfs	D10 cfs	D11 Inlet cfs	D12 Outlet cfs
10yr 24hr	1.80	667	6212.31	3.3	1.2	1.6	1.4	1.3	5	0.6	7.6	2.3	3.0	11.4	0
25yr 6hr	1.25	524	6211.52	3.5	1.1	1.6	1.5	1.4	6.1	0.7	7.7	2.3	3.0	11.5	0
100yr 6hr	2.38	1173	6212.54	6.6	3.5	4.7	2.8	2.6	13.3	1.3	16.4	4.9	6.2	24.3	3.6

RIPRAP SIZING

Riprap is placed at the culvert outlet and along steep channel slopes to prevent erosion. The size of the stones is based on the expected maximum velocity of water flowing out of the culvert or in the channel. When velocities in the smooth channel are expected to reach 5 ft/s, riprap is required. Figure 2 is used to determine the median stone diameter (D50). The riprap mixture should approximate the following gradation:

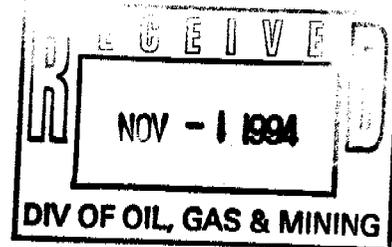
RIPRAP GRADATION

Stone Size	2.0D ₅₀	D ₅₀	0.5D ₅₀	0.25D ₅₀
% Finer	100	50	20	0

For velocities expected to exceed 8 ft/s, in areas where the increased roughness from riprap does not reduce the velocity below 5 ft/s, a filter blanket (or gravel bedding in a layer 1.5 times as thick as the largest stone diameter) will be used. Areas without filter blankets, or without riprap will be monitored. If the area becomes eroded, all diversion channels will be monitored. If excessive erosion occurs, appropriate remediation is required.

SUNNYSIDE COGENERATION ASSOCIATES

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



October 31, 1994

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

**RE: Project No. EC450593: Sunnyside Cogeneration Associates
Permit Submittal NOV N94-26-4-1 100 year 6 hour Diversion down Refuse Pile**

Dear Daron,

This submittal includes a typical design for the diversion down the existing refuse pile in connection with step one of NOV N94-26-4-1. This diversion was identified as RC-D6 on Plate 7-1D.

This diversion has been re-designed to use a series of 36" culverts (RC-C1, RC-C2, and RC-C3) to convey the storm runoff from the 100 year 6 hour storm. At each terrace, an energy dissipating splash pool will be constructed to slow down the velocity, incorporate the additional runoff water from the terrace, and drop some sediment from the runoff. The 36" culvert diversion is clearly over designed for the current conditions under the regulations, but the permittee wishes to minimize the risk of future flood damage in this area by planning for greater potential flows.

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SCA intends to begin installing these pipe culverts as soon as possible in order to meet the deadline imposed by the violation. Please review this submittal accordingly, so that the work can proceed without hinderance.

If you have any questions about this submittal, please feel free to call (801) 261-0090.

Sincerely,

Handwritten signature of David Pearce in black ink.

David Pearce

Authorized Member, Management Committee

Handwritten signature of S. Scott Carlson in black ink.

S. Scott Carlson
Engineer- EWP

7-3

cc: Brian Burnett, CDN
Bill Malencik, DOGM
Joe Helfrich, DOGM

APPLICATION FOR PERMIT CHANGE

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| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Does permit change require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the permit change affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does permit change require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Could the permit change have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Does permit change require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 15. Does permit change require or include vegetation monitoring, removal or revegetation activities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 16. Does permit change require or include construction, modification, or removal of surface facilities? CULVERT INSTALLATION |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 17. Does permit change require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does permit change require or include certified designs, maps, or calculations? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 19. Does permit change require or include underground design or mine sequence and timing? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does permit change require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided or revised for any change in the reclamation plan? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Is permit change within 100 feet of a public road or perennial stream or 500 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Is this permit change coal exploration activity <input type="checkbox"/> inside <input type="checkbox"/> outside of the permit area? N/A |

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

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all aspects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Alane E. Boyd, P.E. 10/31/94
 Signed - Name - Position - Date

Subscribed and sworn to before me this 31st day of October, 1994

Notary Public



NOTARY PUBLIC
MARILLYN YOUNG
 1121 E. 3900 So. #C-10
 Salt Lake City, Utah 84114
 My Commission Expires
 March 8, 1997
STATE OF UTAH

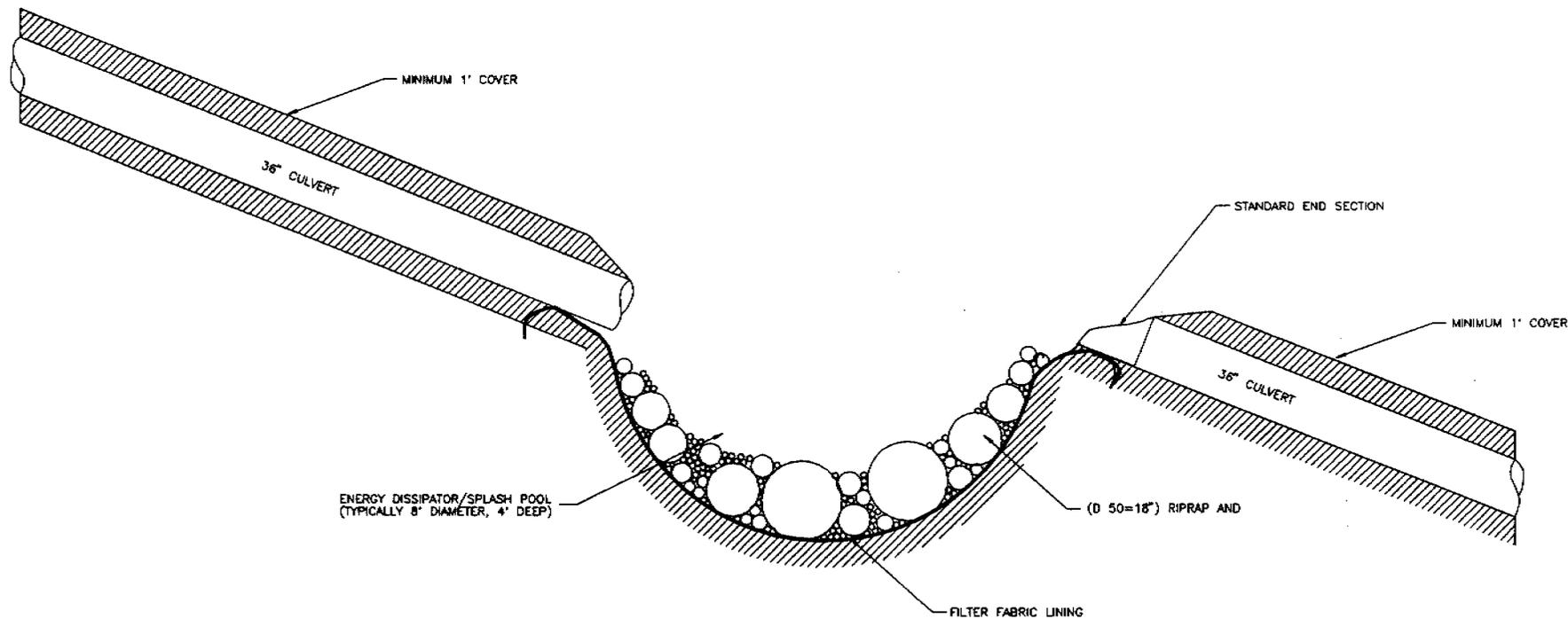
My Commission Expires:
 Attest: STATE OF
 COUNTY OF

RECEIVED BY DIV. OF OIL, GAS & MINING

NOV - 1 1994

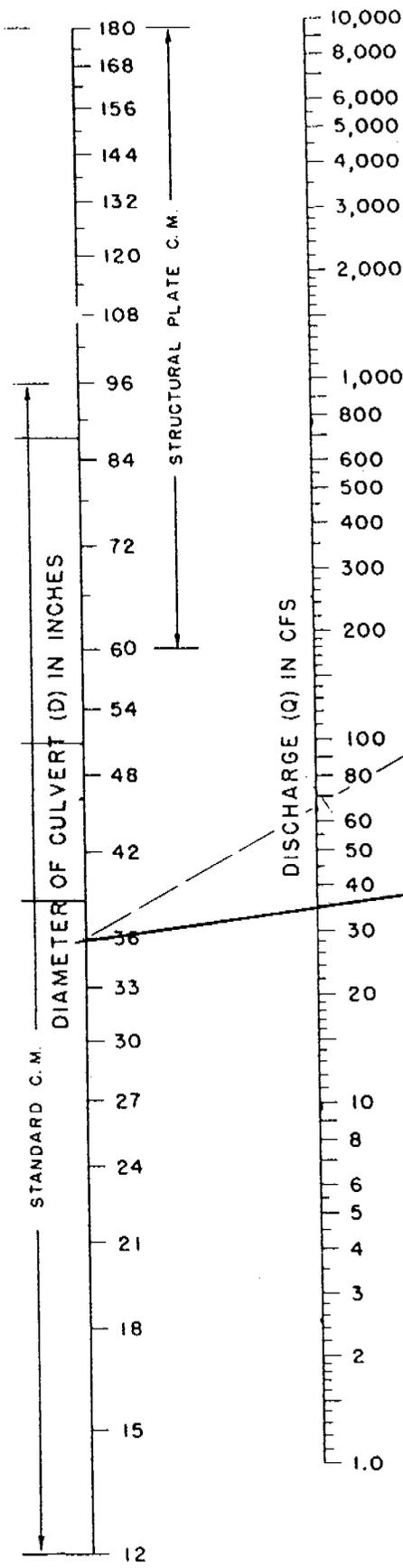
DIV OF OIL, GAS & MINING

ASSIGNED PERMIT CHANGE NUMBER



TYPICAL DRAWING FOR INSTALLING OF 36" CULVERTS
 RC-C1, RC-C2, RC-C3 AND ENERGY DISSIPATOR/SPLASH POOLS

OCT 31, 1994



EXAMPLE

D = 36 inches (3.0 feet)
 Q = 66 cfs

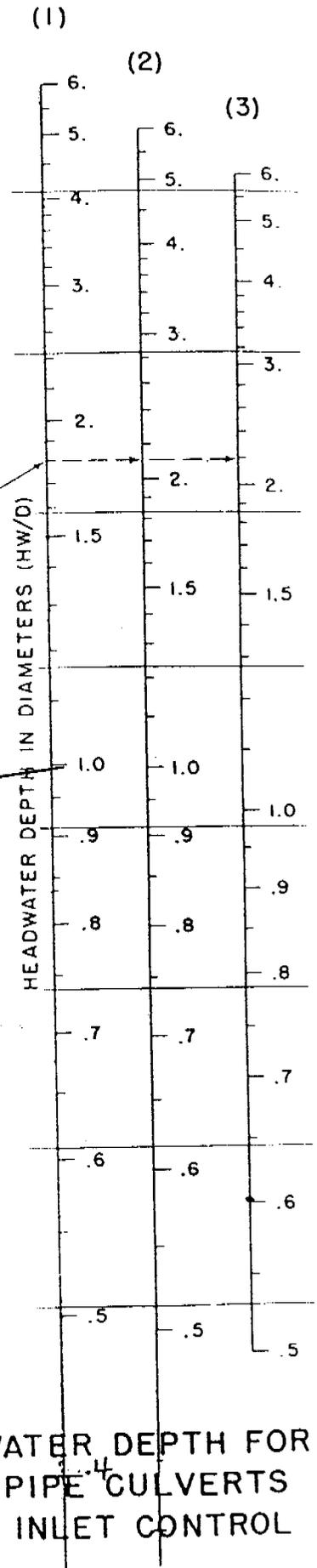
	$\frac{HW}{D}$	HW (feet)
(1)	1.8	5.4
(2)	2.1	6.3
(3)	2.2	6.6

*D in feet

*RAIL CUT CULVERTS
 RC-C1, RC-C2, RC-C3*

$\frac{HW}{D}$ SCALE	ENTRANCE TYPE
(1) $\frac{5}{10}$	Headwall
(2) $\frac{7}{14}$	Mitered to conform to slope
(3) $\frac{10}{20}$	Projecting

To use scale (2) or (3) project horizontally to scale (1), then use straight inclined line through D and Q scales, or reverse as illustrated.



HEADWATER DEPTH FOR PIPE CULVERTS WITH INLET CONTROL

Oct 31, 1994

SUNNYSIDE COGENERATION ASSOCIATES

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

October 31, 1994

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

RE: Project No. EC450593: Sunnyside Cogener
Permit Submittal NOV N94-26-4-1 100 year

Dear Daron,

This submittal includes a typical design for the diversion
one of NOV N94-26-4-1. This diversion was identified

This diversion has been re-designed to use a series of
the storm runoff from the 100 year 6 hour storm. At
constructed to slow down the velocity, incorporate the ~~additional runoff water from the terrace, and drop~~
some sediment from the runoff. The 36" culvert diversion is clearly over designed for the current conditions
under the regulations, but the permittee wishes to minimize the risk of future flood damage in this area by
planning for greater potential flows.

The typical drawing should provide an idea of the diversion intended. Actual construction will be adapted to
meet conditions in the field.

SCA intends to begin installing these pipe culverts as soon as possible in order to meet the deadline imposed
by the violation. Please review this submittal accordingly, so that the work can proceed without hinderance.

If you have any questions about this submittal, please feel free to call (801) 261-0090.

Sincerely,

David Pearce
David Pearce

Authorized Member, Management Committee

S. Scott Carlson

S. Scott Carlson
Engineer - EWP

cc: Brian Burnett, CDN
Bill Malencik, DOGM
Joe Helfrich, DOGM

11/21
Approved
11/11

Copies due
30 days after
in installation
tep
c

Post-It™ brand fax transmittal memo 7671		# of pages	5
To	Daron Haddock	From	Scott Carlson
Co.		Co.	ENP
Dept.		Phone #	261-0090
Fax #	359-3440	Fax #	261-1671

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

October 31, 1994

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

RE: Project No. EC450593: Sunnyside Cogeneration Associates
Permit Submittal NOV N94-26-4-1 100 year 6 hour Diversion down Refuse Pile

Dear Daron,

This submittal includes a typical design for the diversion down the existing refuse pile in connection with step one of NOV N94-26-4-1. This diversion was identified as RC-D6 on Plate 7-1D.

This diversion has been re-designed to use a series of 36" culverts (RC-C1, RC-C2, and RC-C3) to convey the storm runoff from the 100 year 6 hour storm. At each terrace, an energy dissipating splash pool will be constructed to slow down the velocity, incorporate the additional runoff water from the terrace, and drop some sediment from the runoff. The 36" culvert diversion is clearly over designed for the current conditions under the regulations, but the permittee wishes to minimize the risk of future flood damage in this area by planning for greater potential flows.

The typical drawing should provide an idea of the diversion intended. Actual construction will be adapted to meet conditions in the field.

SCA intends to begin installing these pipe culverts as soon as possible in order to meet the deadline imposed by the violation. Please review this submittal accordingly, so that the work can proceed without hinderance.

If you have any questions about this submittal, please feel free to call (801) 261-0090.

Sincerely,

David Pearce
David Pearce

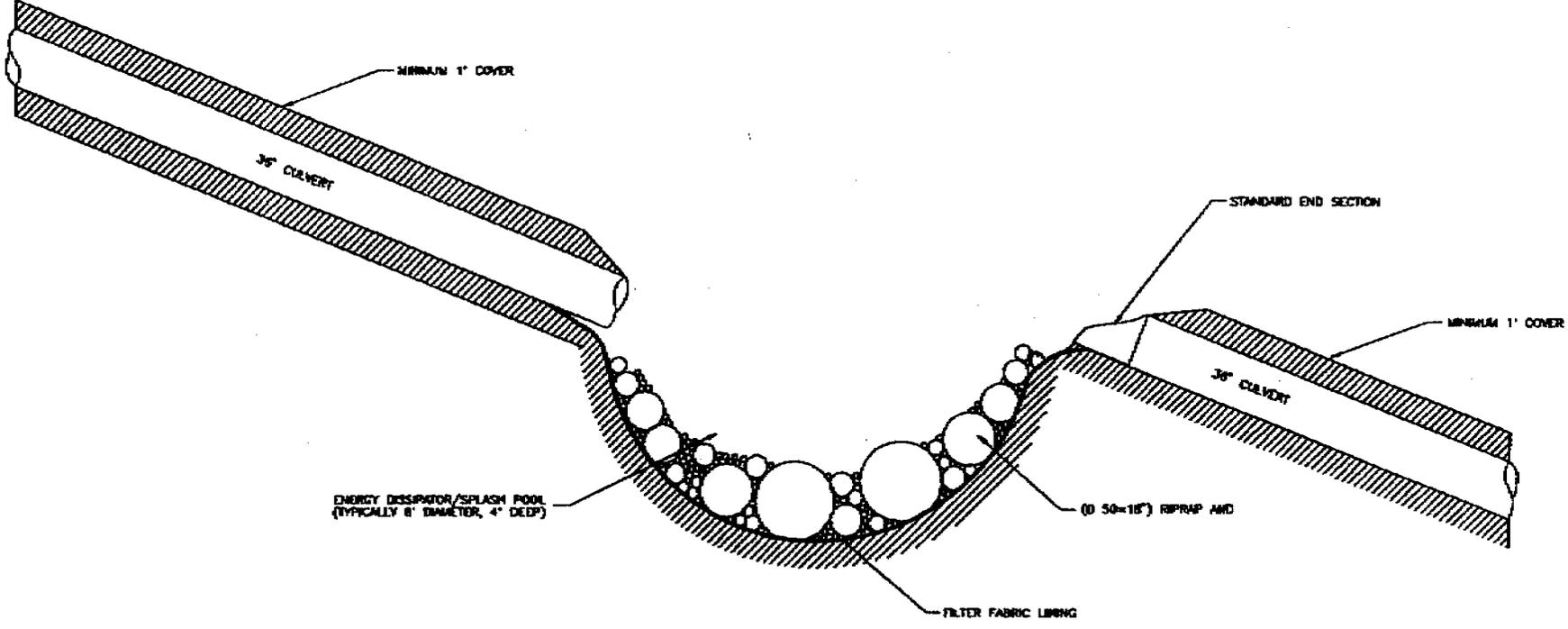
Authorized Member, Management Committee

S. Scott Carlson

S. Scott Carlson
Engineer- EWP

cc: Brian Burnett, CDN
Bill Malencik, DOGM
Joe Helfrich, DOGM

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 5
To	Daron Haddock	From Scott Carlson
Co.		Co. EWP
Dept.		Phone # 201-0090
Fax # 359-3140		Fax # 206-1671



TYPICAL DRAWING FOR INSTALLING OF 36" CULVERTS
RC-C1,RC-C2,RC-C3 AND ENERGY DISSIPATOR/SPLASH POOLS

