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State of Utah

Department of Environmental Quality

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May 24, 2004

CERTIFIED MAIL (Return Receipt Requested)

Stephen Behling Consolidation Coal Corporation P.O. Box 527 Emery, Utah 84522

Dear Mr. Behling:

Subject: Renewal of UPDES Permit UT0022616, Consolidation Coal Corporation

Enclosed is a draft copy of the UPDES Permit No. UT0022616, the Statement of Basis, and the Public Notice for your facility.

If you have any questions with regards to this matter, please contact Harry Campbell at (801) 538-6923.

Sincerely,

Mike Herkimer

Mike Herkimer, Manager Permits & Compliance Section

MH:HC:ev

Enclosure

cc: Debbie Thomas, EPA Region VIII (W/encl) Claron Bjork, Southeastern Utah District Health Dept. (W/encl) Dave Ariotti, DEQ, Southeastern Utah District Engineer Pamela Grubaugh-Littig, DOGM (W/encl)

Handwritten notes: J. Nielson, C/015/0015 OK, e-mail Hydro Working Group, Copy of UPDES book

RECEIVED MAY 26 2004

DIV. OF OIL, GAS & MINING

Mine # C/015/0015 File Incoming Record # 0023 Doc. Date 5/24/04 Recd. Date 5/26/04



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Environmental Quality

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May 24, 2004

Sun Advocate
845 East Main Street
Price, UT 84501

ATTN:Legal Advertising Department

This letter will confirm authorization to publish the attached NOTICE in the Sun Advocate in the first available edition. Please mail the invoice and affidavit of publication to:

Department of Environmental Quality
Division of Water Quality
Attn: Stacy Carroll
P.O. 144870
Salt Lake City, Utah 84114-4870

If there are any questions, please contact Edith Van Vleet at (801) 538-7015.
Thank you for your assistance.

Sincerely,

Mike Herkimer, Manager
Permits & Compliance Section

MH:HC:cc



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May 27, 2004

DIVISION OF WATER QUALITY
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

PUBLIC NOTICE OF RENEWAL OF UPDES PERMIT

PURPOSE OF PUBLIC NOTICE

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT PUBLIC COMMENT REGARDING THE STATE OF UTAH'S INTENTION TO REISSUE A UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMIT UNDER AUTHORITY OF THE UTAH WATER QUALITY ACT, SECTION 19-5-104 AND 107, UTAH CODE ANNOTATED 1953, AS AMENDED. SAID "PERMIT" REFERS TO UPDES PERMIT AND THE STATEMENT OF BASIS. (INCLUDING THE TOTAL MAXIMUM DAILY LOADS (TMDL'S), IF APPLICABLE, AS PER SECTION 303 (d) OF THE FEDERAL CLEAN WATER ACT (CWA).

PERMIT INFORMATION

PERMITTEE NAME:	Consolidation Coal Company
MAILING ADDRESS:	P. O. Box 527, Emery, UT 84522
TELEPHONE NUMBER:	435-286-2301
FACILITY LOCATION:	5 Miles South of Emery on Highway 10; then East 3 Miles
UPDES PERMIT NO.:	UT0022616

BACKGROUND

Consolidation Coal Company has not been actively mining for a number of years. They are in the process of renewing their UPDES discharge permit. They anticipate that they may become active in the not to distant future. They have several discharge points for storm water and mine drain water to Quitcupah Creek

PUBLIC COMMENTS

Public comments are invited any time prior to June 27, 2004. Comments may be directed to the Department of Environmental Quality, Division of Water Quality, 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. All comments received prior to June 27, 2004 will be considered in the formulation of final determinations to be imposed in the renewal permit. A public hearing will be held if response to this notice indicates significant public interest. A public hearing may be held if written requests are received within the first 15 days of this public comment period that demonstrate significant public interest and substantive issues exist to warrant holding a hearing.

FURTHER INFORMATION

Additional information may be obtained upon request by calling Harry Campbell at (801) 538-6923 or by writing the aforementioned address. All information appropriate to this permit renewal is available for review at the Division of Water Quality, 288 North 1460 West, Salt Lake City, Utah.

STATEMENT OF BASIS
CONSOLIDATION COAL COMPANY
UPDES PERMIT NO. UT0022616
STORM WATER PERMIT NO. UTR000000
PERMIT RENEWAL
MINOR INDUSTRIAL

OPERATOR CONTACT

John Gefforth
Environmental Engineer
Consolidation Coal Company
PO Box 566
State Route 148
Sesser, Illinois 62884
618-625-6850

FACILITY CONTACT

Stephen Behling
General Mine Foreman
Consolidation Coal Company
PO Box 527
Emery, Utah 84522
435-286-2301

DESCRIPTION OF FACILITY

The facility is an underground coal mine located in Emery County, Utah Township 22 South, Range 6 East, about 4 miles south of Emery. It has been inactive for over 10 years, but when it was active it produced 50,000 tons of coal per month. It currently is waiting contract arrangements to begin production. Until the contract can be finalized they will not know exactly when coal production will resume (assuming all goes as expected in developing the contract). Initializing production again should not change the conditions in the permit.

Consolidation Coal has a small bending plant to size the coal and a truck loading area. These areas are not new, they have been at the site for many years. During the 5-year period of the last permit cycle, another portal was added for accessing coal. With that portal a sediment pond and discharge outfall for storm water (#009) was added.

DESCRIPTION OF DISCHARGES

Outfall

<u>Number</u>	<u>Description of Discharge Point</u>
001	Discharge of mine water at latitude 38° 51' 38" and longitude 111° 16' 09"
002	Discharge of storm water at latitude 38° 51' 34" and longitude 111° 15' 24"
003	Discharge of mine water at latitude 38° 52' 33" and longitude 111° 16' 53"
004	Discharge of mine water at latitude 38° 52' 48" and longitude 111° 16' 51"
005	Discharge of storm water at latitude 38° 51' 34" and longitude 111° 15' 23"
006	Discharge of storm water at latitude 38° 51' 32" and longitude 111° 15' 30"
007	Discharge of storm water at latitude 38° 51' 45" and longitude 111° 15' 45"
008	Slurry emergency discharge at latitude 38° 51' 45" and longitude 111° 16' 15"
009	Discharge of storm water at latitude 38° 52' 30" and longitude 111° 14' 08"

Included in the addendum is over 4 years of recent self-monitoring data for all 9 Consolidation Coal regulated discharge points. The only discharge points to discharge in the past 4 1/2 years are discharge points #001, #003, and #004. Storm water has not accumulated in the storm water settling ponds, enough to discharge, for over 10 years

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge flows into Quitcupah Creek, a tributary of Muddy Creek. The receiving waters are designated according to *Utah Administrative Code (UAC) R317-2-13.1*, as 2B, 3C, and 4.

- 2B Protected for secondary contact recreation such as boating, wading, or similar uses.
- 3C Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.
- 4 Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

The total suspended solids (TSS) daily maximum limit (70 mg/L) is based on *40 CFR 434*. The monthly (25 mg/L) and weekly (35 mg/L) average for TSS is based on Utah secondary treatment requirements (*UAC R317-1-3.2.B*). Also the storm water settleable solids 0.5 ml/L limitation is based on *40 CFR 434*.

The pH limitations of 6.5 to 9.0 are based on Utah secondary treatment requirements (*UAC R317-1-3.2.D*).

The oil & grease limit of 10 mg/L, and no visible sheen, is an established precedence in Utah and is based on best professional judgement.

The iron concentration is regulated in the discharge for this industry under *40 CFR 434*, however, a waste load analysis based on water quality standards requires a tighter limit of 1.5 mg./L.

The total dissolved solids (TDS) limit of 12 tons/day maximum limit in the permit is based on the Colorado River Basin Salinity Forum's 1977 and 1982 policies plus present and past performance of the coal mine. On January 12, 1984, Consolidation Coal Company reported on Section III of the Colorado River Salinity Control Forum policies concerning cost of operation. TDS will be limited to 1040 tons/year based on the TMDL that is near completion for the Colorado River West watershed.

Effluent Limitations for Outfalls #1 through #9

<u>Parameter</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>Daily Min</u>	<u>Daily max</u>
TSS, mg/L	25	35	NA	70

Oil & Grease	NA	NA	NA	Visible Sheen
Oil & Grease, mg/L	NA	NA	NA	10
PH, standard units	NA	NA	6.5	9.0
Iron, mg/L	NA	NA	NA	1.5
TDS, tons/day	NA	NA	NA	12 ^a
TDS, tons/year	NA	NA	NA	1040 ^b

^a The sum of all discharges shall not exceed 12 tons/day.

^b The sum of all discharges, all year.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following effluent self-monitoring and reporting requirements are based on the *Utah Monitoring, Recording and Reporting Frequency Guidelines*, effective December 1, 1991. Reports shall be made on EPA form 3320-1, discharge monitoring report (DMR) forms, and are due 28 days after the end of the month.

Self-Monitoring and Reporting Requirements

<u>Parameter</u>	<u>Frequency</u>	<u>Sample Type</u>	<u>Units</u>	<u>Reporting Frequency</u>
Total Flow	2xMonth	Measured	MGD	Monthly
TSS	2xMonth	Grab/Composite	mg/L	Monthly
pH	2xMonth	Grab	standard units	Monthly
TDS	2xMonth	Grab/Composite	mg/L	Monthly
TDS	Monthly	Calculated	tons ^a	Monthly
Oil & Grease	Weekly ^b	Visual	yes/no	Monthly
Oil & Grease	Monthly ^b	Grab	mg/L	Monthly
Iron	2xMonth	Grab/Composite	mg/L	Monthly

^a TDS shall be reported as total tons for the reporting month.

^b Sample oil & grease when a sheen is observed or there is another reason to believe oil is present.

BEST MANAGEMENT PRACTICES (BMP's)

The facility must have plans to use high TDS water for dust control, with the intent to maximize the salt load in water used for dust control. There shall be no use of gypsum for rock dusting.

SUBSTANTIVE PERMIT CHANGES

The only significant change in the permit addresses TDS. The permit has had a concentration limit of 3500 mg/L for the combined flows coming from the mine. There is no apparent reason for the 3500 mg/L. The WLA defines two possible concentrations from Consolidation Coal Company, one of 1,225.3 mg/L for protecting the receiving water for irrigation, and one of 2,869.3 mg/L for protecting the receiving water for stock

watering. Neither irrigation nor stock watering occurs downstream of Consolidation Coal Company for several miles as Muddy Creek flows through an unpopulated arid area.

According to the study Consolidation did for the Colorado River Salinity Control Forum (January 12, 1984), Consolidation contributes less than one fourth the TDS load that irrigation return flow contributes from the Emery area upstream from Consolidation, and 9% of the salt load in the Muddy Creek before it crosses I-70. It is now 20 years since the report was completed, and it is very possible that the upstream irrigation impact has changed then. However, the rivers and creeks all through the area have elevated TDS from ground water recharge sources and from surface water sources. It is characteristic of the climate and geology.

As a result of the report (referred to earlier) Consolidation submitted (in 1984) the TDS load in their permit has been 12 tons/day. To limit any further increase, the 12/ton/day limit is continued in this permit.

The TMDL for the Colorado River West watershed is very close to being approved for the first time. The TMDL recommends a yearly TDS load of 1040 tons/year for Consolidation Coal Company.

STORM WATER REQUIREMENTS

This permit authorizes storm water permits from Consolidation Coal. The permit includes requirements to address storm water including a storm water pollution prevention plan. Consolidation Coal must continue maintaining storm water BMP's and must update and maintain their current storm water pollution prevention plan.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring)*. Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.*

The discharge from Consolidation Coal Company qualifies to receive coverage under a minor permit, and is not likely to be toxic, therefore, whole effluent toxicity (WET) testing and limits are not required. If in the future toxicity is discovered or introduced into the process, the permit may be reopened and modified to make WET testing and limits, permit requirements.

PERMIT DURATION

This permit shall expire June 30, 2009, five years from the expected effective date of the permit. The permit was drafted by Harry Campbell, P.E., of the State of Utah, Division of Water Quality, May 17, 2004.

Utah Division of Water Quality
Salt Lake City, Utah

Wasteload Analysis - Total Maximum Daily Load (TMDL)
Addendum: Statement of Basis

31-Mar-04
3:00 PM

Facilities: Consolidated Coal Company
Discharging to: Quitchupah Creek

UPDES No: UT- 0022616

I. Introduction

Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses [R317-2-8, UAC]. Projected concentrations are compared to numeric water quality standards to determine acceptability. The anti-degradation policy and procedures are also considered. The primary in-stream parameters of concern may include metals (as a function of hardness), total dissolved solids (TDS), total residual chlorine (TRC), un-ionized ammonia (as a function of pH and temperature, measured and evaluated in terms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharge. Models aid in the effort of anticipating stream quality at future effluent flows at critical environmental conditions (e.g., low stream flow, high temperature, high pH, etc).

The numeric criteria in this wasteload analysis may always be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

II. Receiving Water and Stream Classification

Quitchupah Creek:	2B, 3C, 4
Antidegradation Review:	Antidegradation Level II Review is not Required

III. Numeric Stream Standards for Protection of Aquatic Wildlife

Total Ammonia (TNH3)	Varies as a function of Temperature and pH Rebound. See Water Quality Standards
Chronic Total Residual Chlorine (TRC)	0.011 mg/l (4 Day Average) 0.019 mg/l (1 Hour Average)
Chronic Dissolved Oxygen (DO)	5.00 mg/l (30 Day Average) N/A mg/l (7Day Average) 3.00 mg/l (1 Day Average)
Maximum Total Dissolved Solids [See Water Quality Standards for special provisions]	1200.0 mg/l - Agricultural Use 2000.0 mg/l - Stock Watering 723.0 mg/l [Salinity Forum - Parker Dam]

**Utah Division of Water Quality
Salt Lake City, Utah**

Acute and Chronic Heavy Metals (Dissolved)

Parameter	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard		
	Concentration	Load*	Concentration		Load*
Aluminum	87.00 ug/l**	0.907 lbs/day	750.00	ug/l	7.817 lbs/day
Arsenic	190.00 ug/l	1.980 lbs/day	360.00	ug/l	3.752 lbs/day
Cadmium	0.61 ug/l	0.006 lbs/day	6.52	ug/l	0.068 lbs/day
Chromium III	211.92 ug/l	2.209 lbs/day	4433.71	ug/l	46.212 lbs/day
ChromiumVI	11.00 ug/l	0.115 lbs/day	16.00	ug/l	0.167 lbs/day
Copper	23.85 ug/l	0.249 lbs/day	39.41	ug/l	0.411 lbs/day
Iron			1000.00	ug/l	10.423 lbs/day
Lead	12.88 ug/l	0.134 lbs/day	330.60	ug/l	3.446 lbs/day
Mercury	0.0120 ug/l	0.000 lbs/day	2.40	ug/l	0.025 lbs/day
Nickel	132.13 ug/l	1.377 lbs/day	1188.44	ug/l	12.387 lbs/day
Selenium	5.00 ug/l	0.052 lbs/day	20.00	ug/l	0.208 lbs/day
Silver	N/A ug/l	N/A lbs/day	25.04	ug/l	0.261 lbs/day
Zinc	303.93 ug/l	3.168 lbs/day	303.93	ug/l	3.168 lbs/day

* Allowed below discharge

**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as

Metals Standards Based upon a Hardness of 300 mg/l as CaCO3

Organics [Pesticides]

Parameter	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard		
	Concentration	Load*	Concentration		Load*
Aldrin			1.500	ug/l	0.016 lbs/day
Chlordane	0.004 ug/l	0.092 lbs/day	1.200	ug/l	0.013 lbs/day
DDT, DDE	0.001 ug/l	0.021 lbs/day	0.550	ug/l	0.006 lbs/day
Dieldrin	0.002 ug/l	0.041 lbs/day	1.250	ug/l	0.013 lbs/day
Endosulfan	0.056 ug/l	1.199 lbs/day	0.110	ug/l	0.001 lbs/day
Endrin	0.002 ug/l	0.049 lbs/day	0.090	ug/l	0.001 lbs/day
Guthion			0.010	ug/l	0.000 lbs/day
Heptachlor	0.004 ug/l	0.081 lbs/day	0.260	ug/l	0.003 lbs/day
Lindane	0.080 ug/l	1.713 lbs/day	1.000	ug/l	0.010 lbs/day
Methoxychlor			0.030	ug/l	0.000 lbs/day
Mirex			0.010	ug/l	0.000 lbs/day
Parathion			0.040	ug/l	0.000 lbs/day
PCB's	0.014 ug/l	0.300 lbs/day	2.000	ug/l	0.021 lbs/day
Pentachlorophenol	13.00 ug/l	278.441 lbs/day	20.000	ug/l	0.208 lbs/day
Toxephene	0.0002 ug/l	0.004 lbs/day	0.7300	ug/l	0.008 lbs/day

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
	Concentration	Load*	Concentration	Load*

Utah Division of Water Quality
Salt Lake City, Utah

TDS	1200.0 mg/l	6.25 tons/day
Arsenic	100.0 ug/l	lbs/day
Boron	750.0 ug/l	lbs/day
Cadmium	10.0 ug/l	0.05 lbs/day
Chromium	100.0 ug/l	lbs/day
Copper	200.0 ug/l	lbs/day
Lead	100.0 ug/l	lbs/day
Selenium	50.0 ug/l	lbs/day

V. Numeric Stream Standards for Protection of Human Health (Class 1C Waters)

Metals	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
	Concentration	Load*	Concentration	Load*
Arsenic			ug/l	lbs/day
Barium			ug/l	lbs/day
Cadmium			ug/l	lbs/day
Chromium			ug/l	lbs/day
Lead			ug/l	lbs/day
Mercury			ug/l	lbs/day
Selenium			ug/l	lbs/day
Silver			ug/l	lbs/day
Fluoride (3)			ug/l	lbs/day
to			ug/l	lbs/day
Nitrates as N			ug/l	lbs/day

Chlorophenoxy Herbicides

2,4-D	ug/l	lbs/day
2,4,5-TP	ug/l	lbs/day
Endrin	ug/l	lbs/day
cyclohexane (Lindane)	ug/l	lbs/day
Methoxychlor	ug/l	lbs/day
Toxaphene	ug/l	lbs/day

VI. Numeric Stream Standards the Protection of Human Health from Water & Fish Consumption [Toxics]

Toxic Organics	Maximum Conc., ug/l - Acute Standards			
	Class 1C		Class 3A, 3B	
	[2 Liters/Day for 70 Kg Person over 70 Yr]		[6.5 g for 70 Kg Person over 70 Yr.]	
Acenaphthene	ug/l	lbs/day	2700.0 ug/l	57.83 lbs/day
Acrolein	ug/l	lbs/day	780.0 ug/l	16.71 lbs/day
Acrylonitrile	ug/l	lbs/day	0.7 ug/l	0.01 lbs/day
Benzene	ug/l	lbs/day	71.0 ug/l	1.52 lbs/day
Benzidine	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Carbon tetrachloride	ug/l	lbs/day	4.4 ug/l	0.09 lbs/day
Chlorobenzene	ug/l	lbs/day	21000.0 ug/l	449.79 lbs/day
1,2,4-Trichlorobenzene				
Hexachlorobenzene	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
1,2-Dichloroethane	ug/l	lbs/day	99.0 ug/l	2.12 lbs/day

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Salt Lake City, Utah

1,1,1-Trichloroethane				
Hexachloroethane	ug/l	lbs/day	8.9 ug/l	0.19 lbs/day
1,1-Dichloroethane				
1,1,2-Trichloroethane	ug/l	lbs/day	42.0 ug/l	0.90 lbs/day
1,1,2,2-Tetrachloroethane	ug/l	lbs/day	11.0 ug/l	0.24 lbs/day
Chloroethane			0.0 ug/l	0.00 lbs/day
Bis(2-chloroethyl) ether	ug/l	lbs/day	1.4 ug/l	0.03 lbs/day
2-Chloroethyl vinyl ether	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
2-Chloronaphthalene	ug/l	lbs/day	4300.0 ug/l	92.10 lbs/day
2,4,6-Trichlorophenol	ug/l	lbs/day	6.5 ug/l	0.14 lbs/day
p-Chloro-m-cresol			0.0 ug/l	0.00 lbs/day
Chloroform (HM)	ug/l	lbs/day	470.0 ug/l	10.07 lbs/day
2-Chlorophenol	ug/l	lbs/day	400.0 ug/l	8.57 lbs/day
1,2-Dichlorobenzene	ug/l	lbs/day	17000.0 ug/l	364.11 lbs/day
1,3-Dichlorobenzene	ug/l	lbs/day	2600.0 ug/l	55.69 lbs/day
1,4-Dichlorobenzene	ug/l	lbs/day	2600.0 ug/l	55.69 lbs/day
3,3'-Dichlorobenzidine	ug/l	lbs/day	0.1 ug/l	0.00 lbs/day
1,1-Dichloroethylene	ug/l	lbs/day	3.2 ug/l	0.07 lbs/day
1,2-trans-Dichloroethylene	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
2,4-Dichlorophenol	ug/l	lbs/day	790.0 ug/l	16.92 lbs/day
1,2-Dichloropropane	ug/l	lbs/day	39.0 ug/l	0.84 lbs/day
1,3-Dichloropropylene	ug/l	lbs/day	1700.0 ug/l	36.41 lbs/day
2,4-Dimethylphenol	ug/l	lbs/day	2300.0 ug/l	49.26 lbs/day
2,4-Dinitrotoluene	ug/l	lbs/day	9.1 ug/l	0.19 lbs/day
2,6-Dinitrotoluene	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
1,2-Diphenylhydrazine	ug/l	lbs/day	0.5 ug/l	0.01 lbs/day
Ethylbenzene	ug/l	lbs/day	29000.0 ug/l	621.14 lbs/day
Fluoranthene	ug/l	lbs/day	370.0 ug/l	7.92 lbs/day
4-Chlorophenyl phenyl ether				
4-Bromophenyl phenyl ether				
Bis(2-chloroisopropyl) ether	ug/l	lbs/day	170000.0 ug/l	3641.15 lbs/day
Bis(2-chloroethoxy) methane	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Methylene chloride (HM)	ug/l	lbs/day	1600.0 ug/l	34.27 lbs/day
Methyl chloride (HM)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Methyl bromide (HM)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Bromoform (HM)	ug/l	lbs/day	360.0 ug/l	7.71 lbs/day
Dichlorobromomethane	ug/l	lbs/day	22.0 ug/l	0.47 lbs/day
Chlorodibromomethane	ug/l	lbs/day	34.0 ug/l	0.73 lbs/day
Hexachlorobutadiene(cyclohexane)	ug/l	lbs/day	50.0 ug/l	1.07 lbs/day
Hexachlorocyclopentadiene	ug/l	lbs/day	17000.0 ug/l	364.11 lbs/day
Isophorone	ug/l	lbs/day	600.0 ug/l	12.85 lbs/day
Naphthalene				
Nitrobenzene	ug/l	lbs/day	1900.0 ug/l	40.70 lbs/day
2-Nitrophenol	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
4-Nitrophenol	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
2,4-Dinitrophenol	ug/l	lbs/day	14000.0 ug/l	299.86 lbs/day
4,6-Dinitro-o-cresol	ug/l	lbs/day	765.0 ug/l	16.39 lbs/day
N-Nitrosodimethylamine	ug/l	lbs/day	8.1 ug/l	0.17 lbs/day
N-Nitrosodiphenylamine	ug/l	lbs/day	16.0 ug/l	0.34 lbs/day

Utah Division of Water Quality

Salt Lake City, Utah

N-Nitrosodi-n-propylam	ug/l	lbs/day	1.4 ug/l	0.03 lbs/day
Pentachlorophenol	ug/l	lbs/day	8.2 ug/l	0.18 lbs/day
Phenol	ug/l	lbs/day	4.6E+06 ug/l	9.85E+04 lbs/day
Bis(2-ethylhexyl)phthalate	ug/l	lbs/day	5.9 ug/l	0.13 lbs/day
Butyl benzyl phthalate	ug/l	lbs/day	5200.0 ug/l	111.38 lbs/day
Di-n-butyl phthalate	ug/l	lbs/day	12000.0 ug/l	257.02 lbs/day
Di-n-octyl phthalate				
Diethyl phthalate	ug/l	lbs/day	120000.0 ug/l	2570.22 lbs/day
Dimethyl phthalate	ug/l	lbs/day	2.9E+06 ug/l	6.21E+04 lbs/day
Benzo(a)anthracene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(a)pyrene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(b)fluoranthene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(k)fluoranthene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Chrysene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Acenaphthylene (PAH)				
Anthracene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Dibenzo(a,h)anthracene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Pyrene (PAH)	ug/l	lbs/day	11000.0 ug/l	235.60 lbs/day
Tetrachloroethylene	ug/l	lbs/day	8.9 ug/l	0.19 lbs/day
Toluene	ug/l	lbs/day	200000.0 ug/l	4283.70 lbs/day
Trichloroethylene	ug/l	lbs/day	81.0 ug/l	1.73 lbs/day
Vinyl chloride	ug/l	lbs/day	525.0 ug/l	11.24 lbs/day
				lbs/day
				lbs/day
Pesticides				
Aldrin	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Dieldrin	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Chlordane	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDT	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDE	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDD	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
alpha-Endosulfan	ug/l	lbs/day	2.0 ug/l	0.04 lbs/day
beta-Endosulfan	ug/l	lbs/day	2.0 ug/l	0.04 lbs/day
Endosulfan sulfate	ug/l	lbs/day	2.0 ug/l	0.04 lbs/day
Endrin	ug/l	lbs/day	0.8 ug/l	0.02 lbs/day
Endrin aldehyde	ug/l	lbs/day	0.8 ug/l	0.02 lbs/day
Heptachlor	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
Heptachlor epoxide				
PCB's				
PCB 1242 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1254 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1221 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1232 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1248 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1260 (Arochlor 12)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1016 (Arochlor 10)	ug/l	lbs/day	0.0 ug/l	0.00 lbs/day

Pesticide

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Toxaphene	ug/l		0.0 ug/l	0.00 lbs/day
Dioxin				
Dioxin (2,3,7,8-TCDD)	ug/l	lbs/day		
Metals				
Antimony	ug/l	lbs/day		
Arsenic	ug/l	lbs/day	4300.00 ug/l	92.10 lbs/day
Asbestos	ug/l	lbs/day		
Beryllium				
Cadmium				
Chromium (III)				
Chromium (VI)				
Copper				
Cyanide	ug/l	lbs/day	2.2E+05 ug/l	4712.07 lbs/day
Lead	ug/l	lbs/day		
Mercury			0.15 ug/l	0.00 lbs/day
Nickel			4600.00 ug/l	98.53 lbs/day
Selenium	ug/l	lbs/day		
Silver	ug/l	lbs/day		
Thallium			6.30 ug/l	0.13 lbs/day
Zinc				

There are additional standards that apply to this receiving water, but were not considered in this modeling/waste load allocation analysis.

VII. Mathematical Modeling of Stream Quality

Model configuration was accomplished utilizing standard modeling procedures. Data points were plotted and coefficients adjusted as required to match observed data as closely as possible.

The modeling approach used in this analysis included one or a combination of the following models.

- (1) The Utah River Model, Utah Division of Water Quality, 1992. Based upon STREAMDO IV (Region VIII) and Supplemental Ammonia Toxicity Models; EPA Region VIII, Sept. 1990 and QUAL2E (EPA, Athens, GA).
- (2) Utah Ammonia/Chlorine Model, Utah Division of Water Quality, 1992.
- (3) AMMTOX Model, University of Colorado, Center of Limnology, and EPA Region 8
- (4) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

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Coefficients used in the model were based, in part, upon the following references:

(1) Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Athens Georgia. EPA/600/3-85/040 June 1985.

(2) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

VIII. Modeling Information

The required information for the model may include the following information for both the upstream conditions at low flow and the effluent conditions:

Flow, Q, (cfs or MGD)	D.O. mg/l
Temperature, Deg. C.	Total Residual Chlorine (TRC), mg/l
pH	Total NH3-N, mg/l
BOD5, mg/l	Total Dissolved Solids (TDS), mg/l
Metals, ug/l	Toxic Organics of Concern, ug/l

Other Conditions

In addition to the upstream and effluent conditions, the models require a variety of physical and biological coefficients and other technical information. In the process of actually establishing the permit limits for an effluent, values are used based upon the available data, model calibration, literature values, site visits and best professional judgement.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Upstream Information

	Stream	Flow	Temp.	pH	T-NH3	BOD	DO	TRC	TDS
	cfs	Deg. C	mg/l as N	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Summer	2.0	20.0	8.2	0.05	0.10	---	0.00	1176.0	
Fall/Spring	2.0	12.0	8.1	0.05	0.10	7.88	0.00	1176.0	
Winter	2.0	8.0	8.0	0.05	0.10	---	0.00	1176.0	
Dissolved Metals	Al	As	Cd	CrIII	CrVI	Copper	Fe	Pb	
All Seasons	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
	1.59*	0.53*	0.053*	0.53*	2.65*	0.53*	0.83*	0.53*	
Dissolved Metals	Hg	Ni	Se	Ag	Zn	Boron			
All Seasons	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l			
	0.0001	0.53*	1.06*	0.1*	0.053*	10.0			* 1/2 MDL

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Discharge Information

Season	Flow, MGD	Temp.
Summer	1.25000	17.0
Fall/Spring	1.25000	15.0
Winter	1.25000	12.0

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

IX. Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort coincide with the environmental conditions expected at low stream flows.

Effluent Limitation for Flow based upon Water Quality Standards

In-stream criteria of downstream segments will be met with an effluent flow maximum value as follows:

All Seasons

Not to Exceed:	1.250 MGD	Daily Average
	1.934 cfs	Daily Average

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 1.25 MGD. If the discharger is allowed to have a flow greater than 1.25 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occur the permit writers must include the discharge flow limitation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitation for Whole Effluent Toxicity (WET) based upon WET Policy

Effluent Toxicity will not occur in downstream segments if the values below are met.

WET Requirements	LC50 >	EOP Effluent	[Acute]
	IC25 >	48.7% Effluent	[Chronic]

Effluent Limitation for Biological Oxygen Demand (BOD) based upon Water Quality Standards or Regulations

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In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent BOD limitation as follows:

Season	Concentration	Load
Summer	25.0 mg/l as BOD5	260.6 lbs/day
Fall/Spring	25.0 mg/l as BOD6	260.6 lbs/day
Winter	25.0 mg/l as BOD7	260.6 lbs/day

Effluent Limitation for Dissolved Oxygen (DO) based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent D.O. limitation as follows:

Season	Concentration
Summer	4.00
Fall/Spring	4.00
Winter	4.00

Effluent Limitation for Total Ammonia based upon Water Quality Standards

In-stream criteria of downstream segments for Total Ammonia will be met with an effluent limitation (expressed as Total Ammonia as N) as follows:

Season	Concentration	Load
Summer	4 Day Avg. - Chronic	N/A mg/l as N N/A lbs/day
	1 Hour Avg. - Acute	55.5 mg/l as N 578.8 lbs/day
Fall/Spring	4 Day Avg. - Chronic	N/A mg/l as N N/A lbs/day
	1 Hour Avg. - Acute	38.1 mg/l as N 397.1 lbs/day
Winter	4 Day Avg. - Chronic	N/A mg/l as N N/A lbs/day
	1 Hour Avg. - Acute	122.2 mg/l as N 1,274.1 lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 100.%.

Effluent Limitation for Total Residual Chlorine based upon Water Quality Standards

In-stream criteria of downstream segments for Total Residual Chlorine will be met with an effluent limitation as follows:

Season	Concentration	Load
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Summer	4 Day Avg. - Chronic	1.949	mg/l	20.3	lbs/day
	1 Hour Avg. - Acute	3.330	mg/l	34.7	lbs/day
Fall/Spring	4 Day Avg. - Chronic	0.630	mg/l	6.6	lbs/day
	1 Hour Avg. - Acute	1.088	mg/l	11.3	lbs/day
Winter	4 Day Avg. - Chronic	0.401	mg/l	4.2	lbs/day
	1 Hour Avg. - Acute	0.693	mg/l	7.2	lbs/day

**Effluent Limitations for Total Recoverable Metals based upon
Water Quality Standards**

In-stream criteria of downstream segments for Dissolved Metals will be met with an effluent limitation as follows (based upon a hardness of 300 mg/l):

	4 Day Average		1 Hour Average		Load
	Concentration	Load	Concentration	Load	
Aluminum	N/A	N/A	1,144.3	ug/l	11.9 lbs/day
Arsenic	389.60 ug/l	2.6 lbs/day	549.5	ug/l	5.7 lbs/day
Cadmium	1.17 ug/l	0.0 lbs/day	9.9	ug/l	0.1 lbs/day
Chromium III	434.64 ug/l	2.9 lbs/day	6,772.0	ug/l	70.6 lbs/day
Chromium VI	18.41 ug/l	0.1 lbs/day	22.3	ug/l	0.2 lbs/day
Copper	48.18 ug/l	0.3 lbs/day	59.8	ug/l	0.6 lbs/day
Iron	N/A	N/A	1,526.8	ug/l	15.9 lbs/day
Lead	25.64 ug/l	0.2 lbs/day	504.6	ug/l	5.3 lbs/day
Mercury	0.02 ug/l	0.0 lbs/day	3.7	ug/l	0.0 lbs/day
Nickel	270.68 ug/l	1.8 lbs/day	1,814.9	ug/l	18.9 lbs/day
Selenium	8.60 ug/l	0.1 lbs/day	29.7	ug/l	0.3 lbs/day
Silver	N/A ug/l	N/A lbs/day	38.2	ug/l	0.4 lbs/day
Zinc	624.48 ug/l	4.2 lbs/day	464.2	ug/l	4.8 lbs/day
Cyanide	10.69 ug/l	0.1 lbs/day	33.6	ug/l	0.4 lbs/day
TDS, mg/l	Utah Class 4 @ 1200 mg/l Standard		1,225.3	mg/l	6.4 tons/day
	Utah Class 4 @ 2000 mg/l Standard		2,869.3	mg/l	15.0 tons/day

[See Utah Water Quality Standards Table 2.14.1 Footnote (4)
and TMDL Studies for special provisions]

Salinity Form @ 723 mg/l Standard 245.1 mg/l 1.3 tons/day
Salinity Forum @ 1 ton/day Standard 191.9 mg/l @ 1.0 ton/day

[Salinity Forum "standards" apply only in the Colorado River Basin.
See DWQ for further information and clarification.]

**Effluent Limitations for Heat/Temperature based upon
Water Quality Standards**

Summer	28.2 Deg. C.	82.8 Deg. F
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Fall/Spring	20.2 Deg. C.	68.4 Deg. F
Winter	16.2 Deg. C.	61.2 Deg. F

**Effluent Limitations for Organics [Pesticides]
Based upon Water Quality Standards**

In-stream criteria of downstream segments for Organics [Pesticides] will be met with an effluent limit as follows:

	4 Day Average		1 Hour Average	
	Concentration	Load	Concentration	Load
Aldrin			1.5E+00	ug/l 2.42E-02 lbs/day
Chlordane	4.30E-03 ug/l	4.48E-02 lbs/day	1.2E+00	ug/l 1.93E-02 lbs/day
DDT, DDE	1.00E-03 ug/l	1.04E-02 lbs/day	5.5E-01	ug/l 8.87E-03 lbs/day
Dieldrin	1.90E-03 ug/l	1.98E-02 lbs/day	1.3E+00	ug/l 2.02E-02 lbs/day
Endosulfan	5.60E-02 ug/l	5.84E-01 lbs/day	1.1E-01	ug/l 1.77E-03 lbs/day
Endrin	2.30E-03 ug/l	2.40E-02 lbs/day	9.0E-02	ug/l 1.45E-03 lbs/day
Guthion	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l 1.61E-04 lbs/day
Heptachlor	3.80E-03 ug/l	3.96E-02 lbs/day	2.6E-01	ug/l 4.19E-03 lbs/day
Lindane	8.00E-02 ug/l	8.34E-01 lbs/day	1.0E+00	ug/l 1.61E-02 lbs/day
Methoxychlor	0.00E+00 ug/l	0.00E+00 lbs/day	3.0E-02	ug/l 4.84E-04 lbs/day
Mirex	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l 1.61E-04 lbs/day
Parathion	0.00E+00 ug/l	0.00E+00 lbs/day	4.0E-02	ug/l 6.45E-04 lbs/day
PCB's	1.40E-02 ug/l	1.46E-01 lbs/day	2.0E+00	ug/l 3.22E-02 lbs/day
Pentachlorophenol	1.30E+01 ug/l	1.35E+02 lbs/day	2.0E+01	ug/l 3.22E-01 lbs/day
Toxephene	2.00E-04 ug/l	2.08E-03 lbs/day	7.3E-01	ug/l 1.18E-02 lbs/day

**Effluent Targets for Pollution Indicators
Based upon Water Quality Standards**

In-stream criteria of downstream segments for Pollution Indicators will be met with an effluent limit as follows:

	1 Hour Average	
	Concentration	Loading
Gross Beta (pCi/l)	50.0 pCi/L	
BOD (mg/l)	5.0 mg/l	52.1 lbs/day
Nitrates as N	4.0 mg/l	41.7 lbs/day
Total Phosphorus as P	0.05 mg/l	0.5 lbs/day
Total Suspended Solids	90.0 mg/l	938.1 lbs/day

Note: Pollution indicator targets are for information purposes only.

Effluent Limitations for Protection of Human Health [Toxics Rule]

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Based upon Water Quality Standards (Most stringent of 1C or 3A & 3B as appropriate.)

In-stream criteria of downstream segments for Protection of Human Health [Toxics]
will be met with an effluent limit as follows:

	Maximum Concentration	
	Concentration	Load
Toxic Organics		
Acenaphthene	5.55E+03 ug/l	5.78E+01 lbs/day
Acrolein	1.60E+03 ug/l	1.67E+01 lbs/day
Acrylonitrile	1.36E+00 ug/l	1.41E-02 lbs/day
Benzene	1.46E+02 ug/l	1.52E+00 lbs/day
Benzidine	ug/l	lbs/day
Carbon tetrachloride	9.04E+00 ug/l	9.42E-02 lbs/day
Chlorobenzene	4.32E+04 ug/l	4.50E+02 lbs/day
1,2,4-Trichlorobenzene		
Hexachlorobenzene	1.58E-03 ug/l	1.65E-05 lbs/day
1,2-Dichloroethane	2.03E+02 ug/l	2.12E+00 lbs/day
1,1,1-Trichloroethane		
Hexachloroethane	1.83E+01 ug/l	1.91E-01 lbs/day
1,1-Dichloroethane		
1,1,2-Trichloroethane	8.63E+01 ug/l	9.00E-01 lbs/day
1,1,2,2-Tetrachloroethane	2.26E+01 ug/l	2.36E-01 lbs/day
Chloroethane		
Bis(2-chloroethyl) ether	2.88E+00 ug/l	3.00E-02 lbs/day
2-Chloroethyl vinyl ether		
2-Chloronaphthalene	8.84E+03 ug/l	9.21E+01 lbs/day
2,4,6-Trichlorophenol	1.34E+01 ug/l	1.39E-01 lbs/day
p-Chloro-m-cresol		
Chloroform (HM)	9.66E+02 ug/l	1.01E+01 lbs/day
2-Chlorophenol	8.22E+02 ug/l	8.57E+00 lbs/day
1,2-Dichlorobenzene	3.49E+04 ug/l	3.64E+02 lbs/day
1,3-Dichlorobenzene	5.34E+03 ug/l	5.57E+01 lbs/day
1,4-Dichlorobenzene	5.34E+03 ug/l	5.57E+01 lbs/day
3,3'-Dichlorobenzidine	1.58E-01 ug/l	1.65E-03 lbs/day
1,1-Dichloroethylene	6.58E+00 ug/l	6.85E-02 lbs/day
1,2-trans-Dichloroethylene1		
2,4-Dichlorophenol	1.62E+03 ug/l	1.69E+01 lbs/day
1,2-Dichloropropane	8.01E+01 ug/l	8.35E-01 lbs/day
1,3-Dichloropropylene	3.49E+03 ug/l	3.64E+01 lbs/day
2,4-Dimethylphenol	4.73E+03 ug/l	4.93E+01 lbs/day
2,4-Dinitrotoluene	1.87E+01 ug/l	1.95E-01 lbs/day
2,6-Dinitrotoluene		
1,2-Diphenylhydrazine	1.11E+00 ug/l	1.16E-02 lbs/day
Ethylbenzene	5.96E+04 ug/l	6.21E+02 lbs/day
Fluoranthene	7.60E+02 ug/l	7.92E+00 lbs/day
4-Chlorophenyl phenyl ether		
4-Bromophenyl phenyl ether		
Bis(2-chloroisopropyl) ether	3.49E+05 ug/l	3.64E+03 lbs/day
Bis(2-chloroethoxy) methane		

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Methylene chloride (HM)	3.29E+03 ug/l	3.43E+01 lbs/day
Methyl chloride (HM)		
Methyl bromide (HM)		
Bromoform (HM)	7.40E+02 ug/l	7.71E+00 lbs/day
Dichlorobromomethane(HM)	4.52E+01 ug/l	4.71E-01 lbs/day
Chlorodibromomethane (HM)	6.99E+01 ug/l	7.28E-01 lbs/day
Hexachlorocyclopentadiene	3.49E+04 ug/l	3.64E+02 lbs/day
Isophorone	1.23E+03 ug/l	1.29E+01 lbs/day
Naphthalene		
Nitrobenzene	3.90E+03 ug/l	4.07E+01 lbs/day
2-Nitrophenol		
4-Nitrophenol		
2,4-Dinitrophenol	2.88E+04 ug/l	3.00E+02 lbs/day
4,6-Dinitro-o-cresol	1.57E+03 ug/l	1.64E+01 lbs/day
N-Nitrosodimethylamine	1.66E+01 ug/l	1.73E-01 lbs/day
N-Nitrosodiphenylamine	3.29E+01 ug/l	3.43E-01 lbs/day
N-Nitrosodi-n-propylamine	2.88E+00 ug/l	3.00E-02 lbs/day
Pentachlorophenol	1.69E+01 ug/l	1.76E-01 lbs/day
Phenol	9.45E+06 ug/l	9.85E+04 lbs/day
Bis(2-ethylhexyl)phthalate	1.21E+01 ug/l	1.26E-01 lbs/day
Butyl benzyl phthalate	1.07E+04 ug/l	1.11E+02 lbs/day
Di-n-butyl phthalate	2.47E+04 ug/l	2.57E+02 lbs/day
Di-n-octyl phthlate		
Diethyl phthalate	2.47E+05 ug/l	2.57E+03 lbs/day
Dimethyl phthlate	5.96E+06 ug/l	6.21E+04 lbs/day
Benzo(a)anthracene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Benzo(a)pyrene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Benzo(b)fluoranthene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Benzo(k)fluoranthene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Chrysene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Acenaphthylene (PAH)		
Anthracene (PAH)		
Dibenzo(a,h)anthracene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	6.37E-02 ug/l	6.64E-04 lbs/day
Pyrene (PAH)	2.26E+04 ug/l	2.36E+02 lbs/day
Tetrachloroethylene	1.83E+01 ug/l	1.91E-01 lbs/day
Toluene	4.11E+05 ug/l	4.28E+03 lbs/day
Trichloroethylene	1.66E+02 ug/l	1.73E+00 lbs/day
Vinyl chloride	1.08E+03 ug/l	1.12E+01 lbs/day
Pesticides		
Aldrin	2.88E-04 ug/l	3.00E-06 lbs/day
Dieldrin	2.88E-04 ug/l	3.00E-06 lbs/day
Chlordane	1.21E-03 ug/l	1.26E-05 lbs/day
4,4'-DDT	1.21E-03 ug/l	1.26E-05 lbs/day
4,4'-DDE	1.21E-03 ug/l	1.26E-05 lbs/day
4,4'-DDD	1.73E-03 ug/l	1.80E-05 lbs/day
alpha-Endosulfan	4.11E+00 ug/l	4.28E-02 lbs/day
beta-Endosulfan	4.11E+00 ug/l	4.28E-02 lbs/day

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Endosulfan sulfate	4.11E+00 ug/l	4.28E-02 lbs/day
Endrin	1.66E+00 ug/l	1.73E-02 lbs/day
Endrin aldehyde	1.66E+00 ug/l	1.73E-02 lbs/day
Heptachlor	4.32E-04 ug/l	4.50E-06 lbs/day
Heptachlor epoxide		
PCB's		
PCB 1242 (Arochlor 1242)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1254 (Arochlor 1254)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1221 (Arochlor 1221)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1232 (Arochlor 1232)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1248 (Arochlor 1248)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1260 (Arochlor 1260)	9.25E-05 ug/l	9.64E-07 lbs/day
PCB-1016 (Arochlor 1016)	9.25E-05 ug/l	9.64E-07 lbs/day
Pesticide		
Toxaphene	1.54E-03 ug/l	1.61E-05 lbs/day
Metals		
Antimony	ug/l	lbs/day
Arsenic	ug/l	lbs/day
Asbestos	ug/l	lbs/day
Beryllium		
Cadmium		
Chromium (III)		
Chromium (VI)		
Copper	ug/l	lbs/day
Cyanide	ug/l	lbs/day
Lead		
Mercury	ug/l	lbs/day
Nickel	ug/l	lbs/day
Selenium		
Silver		
Thallium	ug/l	lbs/day
Zinc		
Dioxin		
Dioxin (2,3,7,8-TCDD)	2.88E-08 ug/l	3.00E-10 lbs/day

**Metals Effluent Limitations for Protection of All Beneficial Uses
Based upon Water Quality Standards and Toxics Rule**

		Acute					Class 3
Class 4	Class 3	Toxics	Acute	1C Acute	Acute	Chronic	
Agricultural	Aquatic Wildlife	Drinking Water Source	Toxics Wildlife	Health Criteria	Most Stringent	Aquatic Wildlife	

**Utah Division of Water Quality
Salt Lake City, Utah**

	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Aluminum		1144.3				1144.3	N/A
Antimony				8836.3		8836.3	
Arsenic	205.5	549.5			0.0	205.5	389.6
Asbestos						0.00E+00	
Barium						0.0	
Beryllium						0.0	
Cadmium	20.5	9.9			0.0	9.9	1.2
Chromium (III)		6772.0			0.0	6772.0	434.6
Chromium (VI)	204.7	22.3			0.0	22.34	18.41
Copper	410.2	59.8				59.8	48.2
Cyanide		33.6	452087.9			33.6	10.7
Iron		1526.8				1526.8	
Lead	204.7	504.6			0.0	204.7	25.6
Mercury		3.67		0.31	0.0	0.31	0.025
Nickel		1814.9		9452.7		1814.9	270.7
Selenium	101.1	29.7			0.0	29.7	8.6
Silver		38.2			0.0	38.2	
Thallium				12.9		12.9	
Zinc		464.2				464.2	624.5
Boron	1541.2					1541.2	

Summary Effluent Limitations for Metals [Wasteload Allocation, TMDL]

[If Acute is more stringent than Chronic, then the Chronic takes on the Acute value.]

	WLA Acute ug/l	WLA Chronic ug/l	
Aluminum	1144.3	N/A	
Antimony	8836.26		
Arsenic	205.5	389.6	Acute Controls
Asbestos	0.00E+00		
Barium			
Beryllium			
Cadmium	9.9	1.2	
Chromium (III)	6772.0	435	
Chromium (VI)	22.3	18.4	
Copper	59.8	48.2	
Cyanide	33.6	10.7	
Iron	1526.8		
Lead	204.7	25.6	
Mercury	0.308	0.025	
Nickel	1814.9	271	
Selenium	29.7	8.6	
Silver	38.2	N/A	
Thallium	12.9		
Zinc	464.2	624.5	Acute Controls
Boron	1541.21		

**Utah Division of Water Quality
Salt Lake City, Utah**

Other Effluent Limitations are based upon R317-1.

X. Antidegradation Considerations

The Utah Antidegradation Policy allows for degradation of existing quality where it is determined that such lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are protected [R317-2-3]. It has been determined that certain chemical parameters introduced by this discharge will cause an increase of the concentration of said parameters in the receiving waters. Under no conditions will the increase in concentration be allowed to interfere with existing instream water uses.

The antidegradation rules and procedures allow for modification of effluent limits less than those based strictly upon mass balance equations utilizing 100% of the assimilative capacity of the receiving water. Additional factors include considerations for "Blue-ribbon" fisheries, special recreational areas, threatened and endangered species, and drinking water sources.

XI. Colorado River Salinity Forum Considerations

Discharges in the Colorado River Basin are required to have their discharge at a TDS loading of less than 1.00 tons/day unless certain exemptions apply. Refer to the Forum's Guidelines for additional information allowing for an exceedence of this value.

XII. Summary Comments

The mathematical modeling and best professional judgement indicate that violations of receiving water beneficial uses with their associated water quality standards, including important downstream segments, will not occur for the evaluated parameters of concern as discussed above if the effluent limitations indicated above are met.

XIII. Notice of UPDES Requirement

This Addendum to the Statement of Basis does not authorize any entity or party to discharge to the waters of the State of Utah. That authority is granted through a UPDES permit issued by the Utah Division of Water Quality. The numbers presented here may be changed as a function of other factors. Dischargers are strongly urged to contact the Permits Section for further information. Permit writers may utilize other information to adjust these limits and/or to determine other limits based upon best available technology and other considerations provided that the values in this wasteload analysis [TMDL] are not compromised. See special provisions in Utah Water Quality Standards for adjustments in the Total Dissolved Solids values based upon background concentration.

Prepared by:
William O. Moellmer, Ph.D.
Utah Division of Water Quality
801-538-6329

File Name: Consolidated Coal 2004



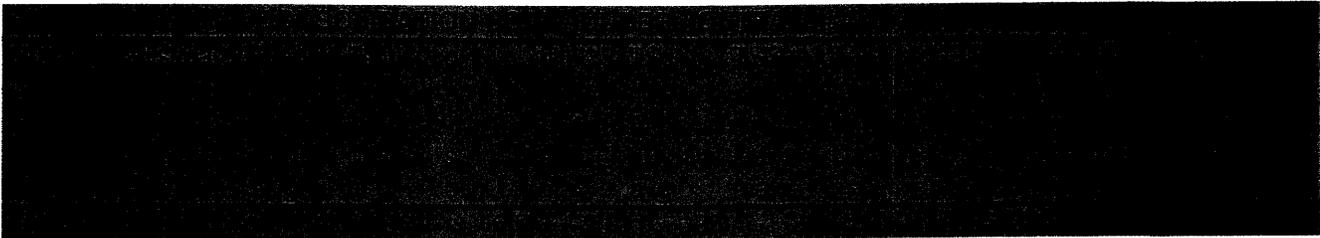
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Aug-03 N
Jul-03 N
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May-03 N
Apr-03 N
Mar-03 N
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Jan-03 N
Dec-02 N
Nov-02 N
Oct-02 N
Sep-02 N
Aug-02 N
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Jun-02 N
May-02 N
Apr-02 N
Mar-02 N
Feb-02 N
Jan-02 N
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Sep-01 N
Aug-01 N
Jul-01 N
Jun-01 N
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Jan-01 N
Dec-00 N
Nov-00 N
Oct-00 N
Sep-00 N

outfall #2

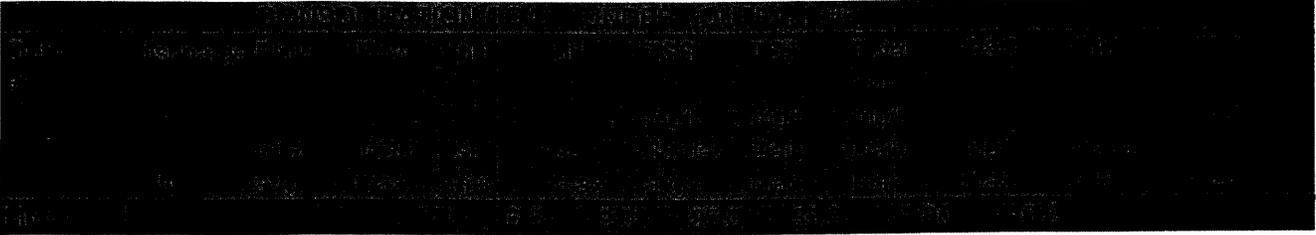
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Jul-99
Jun-99
May-99
Apr-99
Mar-99
Feb-99
Jan-99
Dec-98
Nov-98
Oct-98
Sep-98
Aug-98
Jul-98
Jun-98
May-98
Apr-98
Mar-98
Feb-98
Jan-98



Dec-03	minimal discharge; pump problem; no sample									
Nov-03 Y	1.040	1.040	8.0	8.0	5	5	0.46	NA	N	2524
Oct-03 Y	0.562	0.562	8.3	8.3	5	5	0.36	NA	N	2467
Sep-03 Y	0.446	0.446	7.7	7.7	5	5	0.51	NA	N	2512
Aug-03 Y	0.433	0.433	8.5	8.5	5	5	0.10	NA	N	2375
Jul-03 Y	0.286	0.286	8.5	8.5	5	5	0.07	NA	N	2396
Jun-03 Y	0.84	0.957	7.0	7.0	21.0	21	0	NA	N	2425
May-03 Y	0.259	0.679	7.4	7.4	5	5	0.10	NA	N	2438
Apr-03 Y	0.670	0.670	7.9	7.9	5	5	0.10	NA	N	2625
Mar-03 Y	0.490	0.490	7.4	7.4	5	5	0.09	NA	N	2438
Feb-03 N										
Jan-03 N										
Dec-02 N										
Nov-02 N										
Oct-02 N										
Sep-02 Y	0.207	0.368	7.2	7.2	5	5	0.10	NA	N	2325
Aug-02 Y	0.110	0.246	7.2	7.2	5	5	0.10	NA	N	2390
Jul-02 Y	0.052	0.052	7.1	7.1	5	5	0.10	NA	N	2370
Jun-02 Y	0.123	0.123	7.3	7.3	5	5	0.10	NA	N	2406
May-02 Y	0.349	0.349	7.0	7.0	5	5	0.10	NA	N	2411
Apr-02 Y	0.343	0.343	7.1	7.1	5	5	0.10	NA	N	2383
Mar-02 Y	0.336	0.336	7.1	7.1	5	5	0.20	NA	N	2392
Feb-02 Y	0.343	0.343	7.0	7.0	5	5	0.10	NA	N	2450
Jan-02 Y	0.343	0.343	7.7	7.7	5	5	0.20	NA	N	2389
Dec-02 Y	0.343	0.343	7.1	7.1	5	5	0.1	NA	N	2459
Nov-01 Y	0.343	0.343	7.0	7.0	5	5	0.10	NA	N	2458
Oct-01 Y	0.213	0.388	7.6	7.6	5	5	0.10	NA	N	2517
Sep-01 Y	0.181	0.414	7.7	7.7	5	5	0.10	NA	N	2464
Aug-01 Y	0.252	0.485	7.3	7.3	5	5	0.10	NA	N	2436
Jul-01 Y	0.239	0.433	7.4	7.4	5	5	0.10	NA	N	2459
Jun-01 Y	0.388	0.433	7.4	7.4	5	5	0.10	NA	N	2417
May-01 Y	0.388	0.427	7.0	7.0	5	5	0.10	NA	N	2399
Apr-01 Y	0.433	0.433	7.2	7.2	5	5	0.10	NA	N	2460
Mar-01 Y	0.194	0.194	8.0	8.0	5	5	0.40	NA	N	3982
Feb-01 Y	0.440	0.440	7.1	7.1	5	5	0.10	NA	N	2502
Jan-01 Y	0.414	0.414	6.9	6.9	5	5	0.10	NA	N	2493
Dec-00 Y	0.414	0.414	7.1	7.1	5	5	0.10	NA	N	2524
Nov-00 Y	0.420	0.420	7.3	7.3	5	5	0.30	NA	N	2433
Oct-00 Y	0.401	0.608	7.7	7.7	8	8	0.70	NA	N	2590
Sep-00 Y	0.433	0.756	7.1	7.1	5	5		NA	N	2549



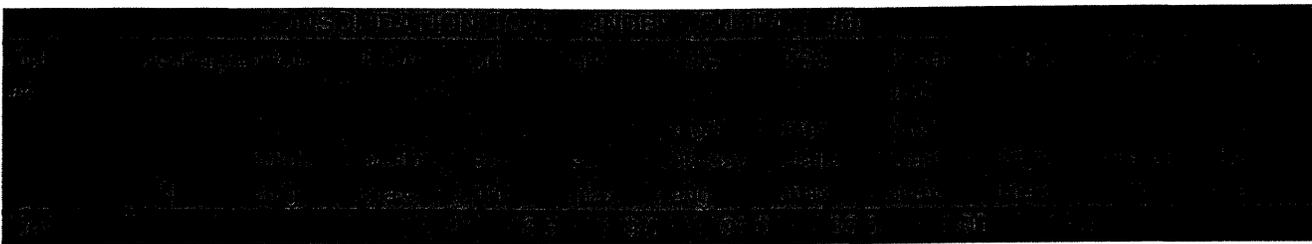
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Aug-03 N											
Jul-03 N											
Jun-03 N											
May-03 N											
Apr-03 N											
Mar-03 N											
Feb-03 N											
Jan-03 N											
Dec-02 N											
Nov-02 N											
Oct-02 N											
Sep-02 Y	0.039	0.181	7.5	7.5	5	5	0.1 NA	N		5936	
Aug-02 Y	0.136	0.226	7.1	7.1	5	5	0.1 NA	N		2369	
Jul-02 Y	0.155	0.155	7	7		26	0.1 NA	N		2391	
Jun-02 Y	0.194	0.194	7.3	7.3	5	5	0.1 NA	N		2414	
May-02 N											
Apr-02 N											
Mar-02 N											
Feb-02 N											
Jan-02 N											
Dec-01 N											
Nov-01 N											
Oct-01 N											
Sep-01 Y	0.168	0.317	7.7	7.7	5	5	0.1 NA	N		2448	
Aug-01 Y	0.129	0.252	7.2	7.2	5	5	0.1 NA	N		2443	
Jul-01 Y	0.129	0.239	7.3	7.3	5	5	0.1 NA	N		2451	
Jun-01 N											
May-01 N											
Apr-01 N											
Mar-01 N											
Feb-01 N											
Jan-01 N											
Dec-00 N											
Nov-00 N											
Oct-00 Y	0.200	0.259	7.2	7.2	8	8	1.1 NA	N		2556	
Sep-00 Y	0.200	0.685	7.0	7.0	5	5	NA	N		2561	
Aug-00 Y	0.142	0.401	7.3	7.3	5	5	0.1 NA	N		2506	



Dec-03 N
Nov-03 N
Oct-03 N
Sep-03 N
Aug-03 N
Jul-03 N
Jun-03 N
May-03 N
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Feb-03 N
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Outfall #5

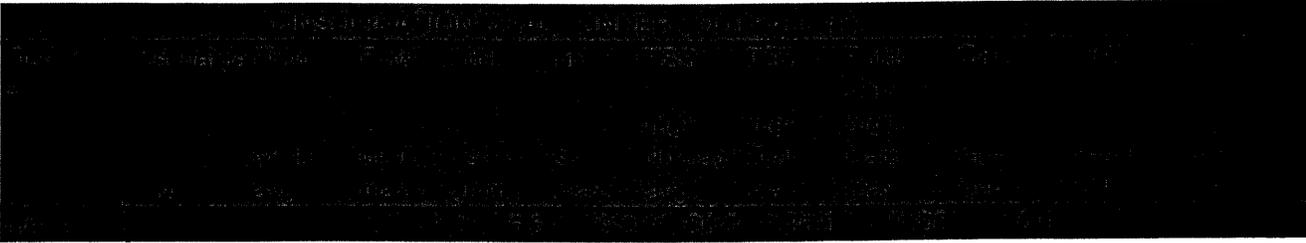
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Dec-03 N
Nov-03 N
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Outfall#6

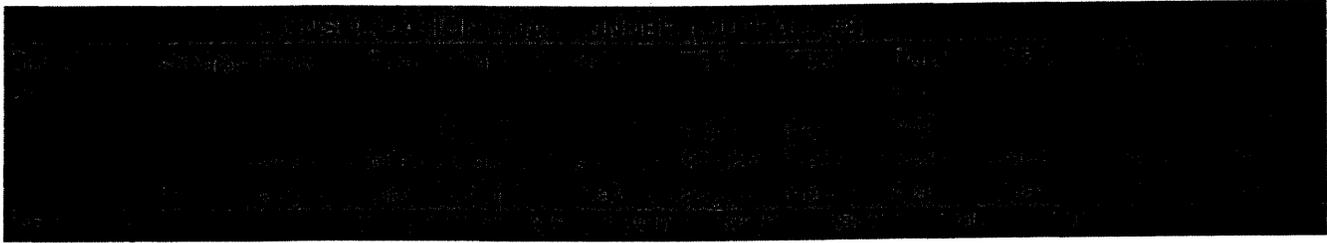
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Dec-03 N
Nov-03 N
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Outfall #7

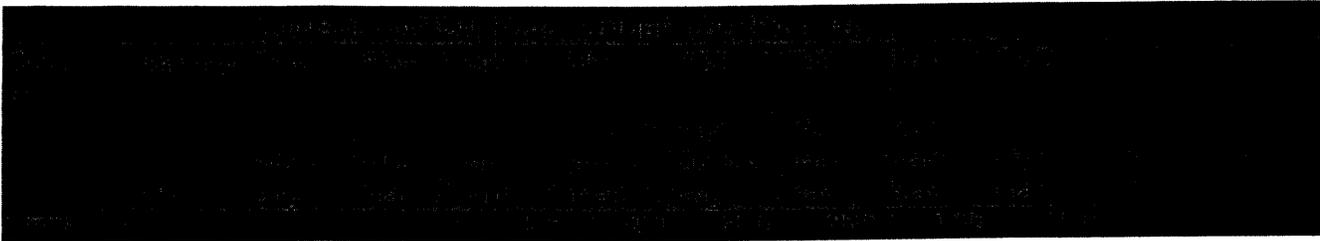
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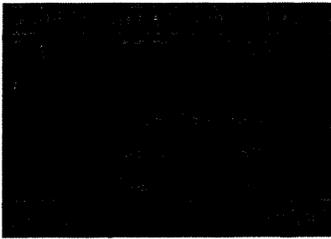
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Mar-02 N
Feb-02 N
Jan-02 N
Dec-01 N
Nov-01 N
Oct-01 N
Sep-01 N

Outfall #8

Aug-01 N
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Apr-01 N
Mar-01 N
Feb-01 N
Jan-01 N
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Sep-98
Aug-98
Jul-98
Jun-98
May-98
Apr-98
Mar-98
Feb-98
Jan-98



Dec-03 N
Nov-03 N
Oct-03 N
Sep-03 N
Aug-03 N
Jul-03 N
Jun-03 N
May-03 N
Apr-03 N
Mar-03
Feb-03
Jan-03
Dec-02



Dec-03 pump problem

Nov-03	9.9	2918
Oct-03	83.0	2863
Sep-03	10.7	3016
Aug-03	7.4	2961
Jul-03	5.7	3181
Jun-03	11.0	2717
May-03	5.6	3282
Apr-03	5.2	3471
Mar-03	0.0	
Feb-03	0.0	
Jan-03	0.0	
Dec-02	0.0	
Nov-02	0.0	
Oct-02	0.0	
Sep-02	5.2	
Aug-02	3.5	2830
Jul-02	4.5	3275
Jun-02	6.3	3147
May-02	7.6	3205
Apr-02	7.4	3206
Mar-02	7.1	3112
Feb-02	6.2	2950
Jan-02	7.6	3111
Dec-01	7.2	3083
Nov-01		
Oct-01	6.6	3006
Sep-01	7.1	3205
Aug-01	7.9	3039
Jul-01	7.5	3048
Jun-01	7.3	3146
May-01	7.5	3056
Apr-01	7.0	2944
Mar-01	7.7	2958
Feb-01	7.0	2985
Jan-01	7.8	2968
Dec-00	7.6	2992
Nov-00	7.2	2947
Oct-00	7.2	2886
Sep-00	11.6	2951
Aug-00	11.9	3131
Jul-00	7.4	2951

Jun-00	6.8	3021
May-00	6.9	2987
Apr-00	8.8	3096
Mar-00	8.2	2884
Feb-00	8.3	2897
Jan-00	8.2	2889
Dec-99	8.2	2941
Nov-99		
Oct-99		
Sep-99		
Aug-99		
Jul-99		
Jun-99		
May-99		
Apr-99		
Mar-99		
Feb-99		
Jan-99		
Dec-98		
Nov-98		
Oct-98		
Sep-98		
Aug-98		
Jul-98		
Jun-98		
May-98		
Apr-98		
Mar-98		
Feb-98		
Jan-98		

STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

AUTHORIZATION TO DISCHARGE UNDER THE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM
(UPDES)

In compliance with provisions of the *Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended* (the "Act"),

CONSOLIDATION COAL COMPANY, EMERY UNDERGROUND MINE AND SURFACE FACILITIES

is hereby authorized to discharge from its facility located in Emery County, Utah Township 22 South, Range 6 East, 4 miles south of Emery, Utah, with the outfalls located at:

- 001, latitude 38° 51" 38' and longitude 111° 16" 09'
- 002, latitude 38° 51" 34' and longitude 111° 15" 24'
- 003, latitude 38° 52" 33' and longitude 111° 16" 53'
- 004, latitude 38° 52" 48' and longitude 111° 16" 51'
- 005, latitude 38° 51" 34' and longitude 111° 15" 23'
- 006, latitude 38° 51" 32' and longitude 111° 15" 30'
- 007, latitude 38° 51" 45' and longitude 111° 15" 45'
- 008, latitude 38° 51" 45' and longitude 111° 16" 15'
- 009, latitude 38° 52" 30' and longitude 111° 14" 08'

to receiving waters named **Quitcupah Creek** in accordance with discharge point, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on .

This permit and the authorization to discharge shall expire at midnight, .

Signed this day of .

Walter L. Baker
Acting Executive Secretary
Utah Water Quality Board

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I. DISCHARGE OUTFALLS, EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Outfalls. The authorization to discharge provided under this permit is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit are in violation of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

Outfall

<u>Number</u>	<u>Location of Discharge Point(s)</u>
001	Discharge of mine water at latitude 38° 51" 38' and longitude 111° 16" 09'
002	Discharge of storm water at latitude 38° 51" 34' and longitude 111° 15" 24'
003	Discharge of mine water at latitude 38° 52" 33' and longitude 111° 16" 53'
004	Discharge of mine water at latitude 38° 52" 48' and longitude 111° 16" 51'
005	Discharge of storm water at latitude 38° 51" 34' and longitude 111° 15" 23'
006	Discharge of storm water at latitude 38° 51" 32' and longitude 111° 15" 30'
007	Discharge of storm water at latitude 38° 51" 45' and longitude 111° 15" 45'
008	Slurry emergency discharge at latitude 38° 51" 45' and longitude 111° 16" 15'
009	Discharge of storm water at latitude 38° 52" 30' and longitude 111° 14" 08'

B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-monitoring Requirements.

1. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfalls 001 to 009. Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Effluent Limitations				
	Maximum Monthly Avg.	Maximum Weekly Avg.	Daily Minimum	Daily Maximum	Yearly Maximum
Total Suspended Solids	25	35	N/A	70	N/A
Total Dissolved Solids	N/A	N/A	N/A	12b/	1040
Iron	N/A	N/A	N/A	1.5	N/A
Oil & Grease, (visual)	N/A	N/A	N/A	Yes/No	N/A
Oil & Grease	N/A	N/A	N/A	10	N/A

pH	N/A	N/A	6.5	9.0	N/A
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Self-Monitoring and Reporting Requirements <i>a/</i>			
Parameter	Frequency	Sample Type	Units
Total Flow	2xMonthly	Measured	MGD
TSS, Effluent	2xMonthly	Grab/Composite	mg/L
TDS	2xMonthly	Grab/Composite	mg/L
TDS	Monthly	Calculated	tons <i>c/</i>
Iron	2xMonthly	Grab/Composite	mg/L
Oil & Grease	Weekly	Visual	Yes/No <i>d/</i>
Oil & Grease	Monthly	Grab	mg/L <i>d/</i>

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes.

N/A - Not Applicable.

- a/* See Definitions, *Part VI* for definition of terms.
 - b/* The sum of the calculated TDS load for all discharges shall not exceed 12 tons/day (also, see yearly loading above).
 - c/* TDS shall be reported as total tons for the reporting month.
 - d/* A visual Oil & Grease sample must be done each week. The permittee must take an Oil & Grease analytical sample at the same time as the first positive Oil & Grease Visual sample in the month. If no visual Oil & Grease sample is positive in the month, no analytical Oil & Grease sample is required.
2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at each of the discharge outfalls 001 to 009, prior to mixing with any receiving waters.
 3. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at all surface runoff pond (outfalls) may comply with the following limit instead of the total suspended solids limitations contained in *Part I.C.1*:

Effluent Characteristics

Daily Maximum

Settleable Solids

0.5 ml/L

In addition to the monitoring requirements specified under *Part I.C.1*, all effluent samples collected during storm water discharge events shall also be

analyzed for settleable solids. Such samples may be either grab or composite samples.

4. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within any 24-hour period greater than 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at all surface runoff pond outfalls may comply with the following limits instead of the otherwise applicable limits:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However, as stated under *Part I.C.3*, all effluent samples collected at all surface runoff pond outfalls during storm water discharge events shall be analyzed for settleable solids and parameters identified under *Part I.C.1*.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in *Parts I.C.3* and *C.4*. The alternate limits in *Parts I.C.3* and *C.4* shall not apply to treatment systems that treat underground mine water only.
6. The facility must have plans to use high TDS water for dust control, with the intent to maximize the salt load in water used for dust control. There shall be no use of gypsum for rock dusting.
7. Except for mine water discharges identified in *Part I.A.* and the discharges identified later in this paragraph, discharges from this facility are limited to storm water only. Point sources of pollutant seeps or underground drainage from inactive coal mines and refuse areas that do not occur as storm water discharges in response to precipitation events are excluded from coverage by the storm water section of this permit. In addition, floor drains from maintenance buildings and other similar drains in mining and preparation plan areas are prohibited. The following non-storm water discharges may be authorized by this permit to be discharged with storm water discharges provided the non-storm water component of the discharge is in compliance with *Part II.B.1.c* (Measures and Controls for Non Storm Water Discharges); discharges from fire fighting activities; fire hydrant flushing; potable water sources including waterline flushing; irrigation drainage; lawn watering; routine external building wash down which does not use detergents or other compounds; pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

II. STORM WATER DISCHARGE REQUIREMENTS

- A. Discharges Covered Under This Section The requirements listed under this section (*Part II*) shall apply to storm water discharges from coal mining-related areas (SIC Major Group 12) if they are not subject to effluent limitations guidelines under *40 CFR Part 434*.

Storm water discharges from the following portions of Consolidation Coal are covered under this section: haul roads (nonpublic roads on which coal or coal refuse is conveyed), access roads (nonpublic roads providing light vehicular traffic within the facility property and to public roadways), railroad spurs, sidings, and internal haulage lines (rail lines used for hauling coal within the facility property and to offsite commercial railroad lines or loading areas), conveyor belts, chutes, and aerial tramway haulage areas (areas under and around coal or refuse conveyor areas, including transfer stations), equipment storage and maintenance yards, coal handling buildings and structures, and inactive coal mines and related areas (abandoned and other inactive mines, refuse disposal sites and other mining-related areas on private lands).

- B. Storm Water Pollution Prevention Plans. A storm water pollution prevention plan shall be developed (or, if already developed, shall continue to be maintained) by the permittee covered by this permit. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices and in accordance with the factors outlined in *40 CFR 125.3(d)(2)* or *(3)* as appropriate. The *DWQ* recommends that plans be signed by a State registered Professional Engineer (P.E.), particularly where plans are complex, treatment systems are used, and risks to storm water discharges are significant. The plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the plan shall describe and ensure the implementation of practices that are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

1. Storm Water Pollution Prevention Plan Requirements. Most of the active coal mining-related areas, described in *Part II.A.* (above), are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the *Surface Mining Control and Reclamation Act (SMCRA)*. OSM has granted authority to the Utah Division of Oil Gas and Mining (DOG M) to implement *SMCRA* through State *SMCRA* regulations. All *SMCRA* requirements regarding control of erosion, siltation and other pollutants resulting from storm water runoff, including road dust resulting from erosion, shall be primary requirements of the pollution prevention plan

and shall be included in the contents of the plan directly, or by reference. Where determined to be appropriate for protection of water quality, additional sedimentation and erosion controls may be warranted.

2. Contents of Plan. The plan shall include at a minimum, the following items:

- a. Pollution Prevention Team. The plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.
- b. Description of Potential Pollutant Sources. The plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from storm water discharge points (not identified in *Part I.A.*) draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:

(1) Drainage.

- (a) A site map, such as a drainage map required for *SMCRA* permit applications, that indicate drainage areas and storm water outfalls. These shall include but not be limited to the following:
 - i Drainage direction and discharge points from all applicable mining-related areas described in *Part II.A.*, including culvert and sump discharges from roads and rail beds and also from equipment and maintenance areas subject to storm runoff of fuel, lubricants and other potentially harmful liquids.
 - ii Location of each existing erosion and sedimentation control structure or other control measures for reducing pollutants in storm water runoff.
 - iii Receiving streams or other surface water bodies.
 - iv Locations exposed to precipitation that contain acidic spoil, refuse or unreclaimed disturbed areas.

- v Locations where major spills or leaks of toxic or hazardous pollutants have occurred.
 - vi Locations where liquid storage tanks containing potential pollutants, such as caustics, hydraulic fluids and lubricants, are exposed to precipitation.
 - vii Locations where fueling stations, vehicle and equipment maintenance areas are exposed to precipitation.
 - viii Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.
- (b) For each area of the facility that generates storm water discharges associated with the mining-related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.
- (2) Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water for 3 years prior to the latest permit renewal to the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the latest permit renewal and the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.
- (3) Spills and Leaks. A list of significant spills and leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the latest permit renewal. Such list shall be updated as appropriate during the term of the permit.
- (4) Sampling Data. A summary of any existing discharge sampling data describing pollutants in storm water discharges from the portions of

the facility covered by this permit, including a summary of any sampling data collected during the term of this permit.

(5) Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil. Specific potential pollutants shall be identified, where known.

c. Measures and Controls. Consolidation Coal shall develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls.

(1) Good Housekeeping. Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner. These would be practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; watering of haul roads to minimize dust generation; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and equipment maintenance; or other equivalent measures.

(2) Preventive Maintenance. A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems. Where applicable, such measures would include the following: removal and proper disposal of settled solids in catch basins to allow sufficient retention capacity; periodic replacement of siltation control measures subject to deterioration such as straw bales; inspections of storage tanks and pressure lines for fuels, lubricants,

hydraulic fluid or slurry to prevent leaks due to deterioration or faulty connections; or other equivalent measures.

- (3) Spill Prevention and Response Procedures. Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up should be available to personnel.
- (4) Inspections. In addition to or as part of the comprehensive site evaluation required under *Part II.B.2.d* of this section, qualified facility personnel shall be identified to inspect designated areas of the facility at appropriate intervals specified in the plan. The following shall be included in the plan:
 - (a) Active Mining-Related Areas and Those Inactive Areas Under SMCRA Bond Authority. The plan shall require quarterly inspections by the facility personnel for areas of the facility covered by pollution prevention plan requirements. This inspection interval corresponds with the quarterly inspections for the entire facility required to be provided by SMCRA authority inspectors for all mining-related areas under SMCRA authority, including sediment and erosion control measures. Inspections by the facility representative may be done at the same time as the mandatory inspections performed by SMCRA inspectors. Records of inspections of the SMCRA authority facility representative shall be maintained.
 - (b) Inactive Mining-Related Areas Not Under SMCRA Bond. The plan shall require annual inspections by the facility representative except in situations referred to in *Part II.B.2.d.4.* below.
 - (c) Inspection Records. The plan shall require that inspection records of the facility representative and those of the SMCRA authority inspector shall be maintained. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections.
- (5) Employee Training. Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for

storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify periodic dates for such training.

- (6) Recordkeeping and Internal Reporting Procedures. A description of incidents (such as spills, or other discharges) along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- (7) Non-storm Water Discharge.
- (a) Certification. The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges such as drainage from underground portions of inactive mines or floor drains from maintenance or coal handling buildings. The certification shall include the identification of potential significant sources of non-storm water discharges at the site, a description of the results of any test and/or evaluation, a description of the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with *Part V.G.* of this permit.
- (b) Exceptions. Except for flows from fire fighting activities, authorized sources of non-storm water listed in *Part I.C.7.* and *Part I.A.* of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.
- (c) Failure to Certify. If Consolidation Coal is unable to provide the certification required (testing or other evaluation for non-storm water discharges) must notify the *Executive Secretary* by September 1, 2005. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water to the storm discharge lines; and why adequate tests for such storm discharge lines were not feasible. Non-storm water discharges to

waters of the State that are not authorized by a *UPDES* permit are unlawful, and must be terminated.

- (8) Sediment and Erosion Control. The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion and reduce sediment concentrations in storm water discharges. As indicated in paragraph 3. above, *SMCRA* requirements regarding sediment and erosion control measures are primary requirements of the pollution prevention plan for mining-related areas subject to *SMCRA* authority. The following sediment and erosion control measures or other equivalent measures, should be included in the plan where reasonable and appropriate for all areas subject to storm water runoff:
- (a) Stabilization Measures. Interim and permanent stabilization measures to minimize erosion and lessen amount of structural sediment control measures needed, including: mature vegetation preservation; temporary seeding; permanent seeding and planting; temporary mulching, matting, and netting; sod stabilization; vegetative buffer strips; temporary chemical mulch, soil binders, and soil palliatives; nonacidic roadsurfacing material; and protective trees.
 - (b) Structural Measures. Structural measures to lessen erosion and reduce sediment discharges, including: silt fences; earth dikes; straw dikes; gradient terraces; drainage swales; sediment traps; pipe slope drains; porous rock check dams; sedimentation ponds; riprap channel protection; capping of contaminated sources; and physical/chemical treatment of storm water.
- (9) Management of Flow. The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (other than those as sediment and erosion control measures listed above) used to manage storm water runoff in a manner that reduces pollutants in storm water runoff from the site. The plan shall provide that the measures, which the permittee determines to be reasonable and appropriate, shall be implemented and maintained. Appropriate measures may include: discharge diversions; drainage/storm water conveyances; runoff dispersion; sediment control and collection; vegetation/soil stabilization; capping of contaminated sources; treatment; or other equivalent measures.
- d. Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:

- (1) Areas contributing to a storm water discharge associated with coal mining-related areas shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. These areas include haul and access roads; railroad spurs, sidings, and internal haulage lines; conveyor belts, chutes and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures, as indicated in *Part II.B.2.c.(8)a* and *II.B.2.c.(8)b* and where identified in the plan, shall be observed to ensure that they are operating correctly. A visual evaluation of any equipment needed to implement the plan, such as spill response equipment, shall be made.
- (2) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan, in accordance with *Part II.B.2.b* of this section, and pollution prevention measures and controls identified in the plan, in accordance with *Part II.B.2.c* of this section, shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner. For inactive mines, such revisions may be extended to a maximum of 12 weeks after the evaluation.
- (3) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with *Part II.B.2.c(2)* above shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with *Part V.G. (Signatory Requirements)* of this permit.
- (4) Where compliance evaluation schedules overlap with inspections required under *Part II.B.2.c(4)*, the compliance evaluation may be conducted in place of one such inspection. Where annual site compliance evaluations are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site inspections required under this part shall be conducted at

appropriate intervals specified in the plan, but, in no case less than once in 3 years.

III. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under *Utah Administrative Code ("UAC") R317-2-10*, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), post-marked no later than the 28th day of the month following the completed reporting period. The first report is due on August 28th 2004. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part IV.G)*, and submitted to the Director, Division of Water Quality at the following address:
- original to: Department of Environmental Quality
Division of Water Quality
288 North 1460 West
PO Box 144870
Salt Lake City, Utah 84114-4870
- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* or as otherwise specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted

in the DMR. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.

G. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-Four Hour Notice of Noncompliance Reporting.

1. The permittee shall (orally) report any noncompliance which may seriously endanger health or environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 538-6146, or 24 hour answering service (801) 536-4123.
2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4123 as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:
 - a. Any noncompliance which may endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See *Part III.G, Bypass of Treatment Facilities.*);
 - c. Any upset which exceeds any effluent limitation in the permit (See *Part III.H, Upset Conditions.*); or,
 - d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.

3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and,
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 538-6146.
5. Reports shall be submitted to the addresses in *Part II.D, Reporting of Monitoring Results*.
- J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part II.D* are submitted. The reports shall contain the information listed in *Part II.I.3*.
- K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location

IV. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine not exceeding \$25,000 per day of violation; Any person convicted under UCA 19-5-115(2) a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided at Part III.G, *Bypass of Treatment Facilities* and Part III.H, *Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screening, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.
- G. Bypass of Treatment Facilities.

1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to 2. and 3. of this section.
2. Prohibition of Bypass.
 - a. Bypass is prohibited, and the Executive Secretary may taken enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
 - (3) The permittee submitted notices as required under section G.3.
 - b. The executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed in sections G.2a. (1), (2) and (3).
3. Notice.
 - a. Anticipated bypass. Except as provided above in section G.2. and below in section G. 3.b, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Executive Secretary:
 - (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages;
 - (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Executive Secretary in advance of any changes to the bypass schedule;
 - (3) Description of specific measures to be taken to minimize environmental and public health impacts;

- (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;
 - (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and
 - (6) Any additional information requested by the Executive Secretary.
- b. **Emergency Bypass.** Where ninety days advance notice is not possible, the permittee must notify the Executive Secretary, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Executive Secretary the information in section G.3.a.(1) through (6i) to the extent practicable.
 - c. **Unanticipated bypass.** The permittee shall submit notice of an unanticipated bypass to the Executive Secretary as required under Part II.I., Twenty Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2. of this section are met. Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.I., Twenty-four Hour Notice of Noncompliance Reporting; and,
 - d. The permittee complied with any remedial measures required under Part III.D, Duty to Mitigate.

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:
 1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 ug/L);
 - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,
 - d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.
 2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500 ug/L);
 - b. One milligram per liter (1 mg/L) for antimony;
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,

d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

K. Industrial Pretreatment. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at *40 CFR 403*, the State Pretreatment Requirements at *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters.

In addition, in accordance with *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch)

V. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Executive Secretary of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.
1. All permit applications shall be signed by either a principal executive officer or ranking elected official

2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Changes to authorization. If an authorization under paragraph IV.G.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV.G.2 must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section shall make the following certification:
 - (1) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Executive Secretary. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Executive Secretary at least 20 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117*.
- O. Water Quality-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
 2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
 3. A revision to the current Water Quality Management Plan is approved and adopted which calls for different effluent limitations than contained in this permit.
- P. Toxicity Limitation-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include whole effluent toxicity (WET) testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

VI. DEFINITIONS

1. The "30-day and monthly average" is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "7-day and weekly average" is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, beginning on Sunday and ending on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.
3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.
4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the composite sample period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

6. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
9. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
10. "Executive Secretary" means Executive Secretary of the Utah Water Quality Board.
11. "EPA" means the United States Environmental Protection Agency.
12. "Act" means the "*Utah Water Quality Act*".
13. "Best Management Practices" ("*BMP's*") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. *BMP's* also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
14. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
15. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.
16. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a *UPDES* permit (other than the *UPDES* permit for discharges from the municipal separate storm sewer) and discharges from fire fighting activities, fire hydrant flushing, potable water sources including waterline flushing, uncontaminated ground water (including dewatering ground water

infiltration), foundation or footing drains where flows are not contaminated with process materials such as solvents, springs, riparian habitats, wetlands, irrigation water, exterior building wash down where there are no chemical or abrasive additives, pavement wash water where spills or leaks of toxic or hazardous materials have not occurred and where detergents are not used, and air conditioning condensate.

17. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.
- B. "Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.
- C. "Section 313 water priority chemical" means a chemical or chemical categories which:
- a. Are listed at *40 CFR 372.65* pursuant to *Section 313* of *Title III* of the *Emergency Planning and Community Right-to-Know Act (EPCRA)* (also known as *Title III* of the *Superfund Amendments and Reauthorization Act (SARA)* of 1986);
 - b. Are present at or above threshold levels at a facility subject to *EPCRA, Section 313* reporting requirements, and
 - c. Meet at least one of the following criteria:
 - (1) Are listed in *Appendix D* of *40 CFR 122* on either *Table II* (organic priority pollutants), *Table III* (certain metals, cyanides, and phenols) or *Table IV* (certain toxic pollutants and hazardous substances);
 - (2) Are listed as a hazardous substance pursuant to *Section 311(b)(2)(A)* of the *CWA* at *40 CFR 116.4*; or
 - (3) Are pollutants for which EPA has published acute or chronic toxicity criteria.
- D. "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under *Section 101(14)* of *CERCLA*; any chemical the facility is required to report pursuant to *EPCRA Section 313*;

fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

- E. "Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under *Section 311* of the *Clean Water Act* (see *40 CFR 110.10* and *40 CFR 117.21*) or *Section 102* of *CERCLA* (see *40 CFR 302.4*).
- F. "Storm water" means storm water runoff, snowmelt runoff, and surface runoff and drainage.
- G. "Time-weighted composite" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.
- H. "Waste pile" means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.
- I. "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years. This information is available in *Weather Bureau Technical Paper No. 40*, May 1961 and *NOAA Atlas 2*, 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.