State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

FILE COPY

JUL 18 2014

CERTIFIED MAIL
(Return Receipt Requested)

Joy Glad, EHS Coordinator
Weir Minerals NA SLC-Rubber Engineering
3459 South 700 West
Salt Lake City, UT 84119

Dear Ms. Glad:

Subject: UPDES Permit UT0024767, Weir Mineral NA SLC-Rubber Engineering

Enclosed is UPDES permit No.UT0024767 for your facility. Copies of EPA form 3320-1 Discharge Monitoring Report (DMR) forms, for reporting and self-monitoring requirements, as specified in the permit, will be sent as soon as printed. This permit will become effective on August 1, 2014, subject to the right of appeal in accordance with the provisions of *Utah Administrative Code,* Section R317-9.

As the State agency charged with the administration of issuing UPDES Permits, we are continuously looking for ways to improve our quality of service to you. In an effort to improve the State UPDES permitting process we are asking for your input. Since our customer permittee base is limited, your input is important. Please take a few moments to complete an online survey (Go to www.waterquality.utah.gov and click on the "Give Feedback to DWQ button on the left side of page.) The results will be used to improve our quality and responsiveness to our permittees and give us feedback on customer satisfaction. We will address the issues you have identified on an ongoing basis.

Document Date 7/18/2014
DWQ-2014-009511

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144870 • Salt Lake City, UT 84114-4870
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If you have any questions with regard to this matter, please contact Matthew Garn at mgarn@utah.gov or at (801) 536-4381.

Sincerely,

John Kennington, P.E., Manager
UPDES Engineering Section

JK:MG:pe

Enclosures (3):
1. Fact Sheet Statement of Basis, (DWQ-2014-007443)
2. Waste Load Analysis, (DWQ-2014-007445)
3. Permit, (DWQ-2014-007444)

cc: Amy Clark, EPA Region VIII (w/encl via e-mail)
Royal DeLegge, Salt Lake County Health Department (w/ encl)

DWQ-2014-009382

FACT SHEET STATEMENT OF BASIS
WEIR MINERALS NA SLC - RUBBER ENGINEERING
RENEWAL DISCHARGE PERMIT
UPDES PERMIT NUMBER: UT0024767
MINOR INDUSTRIAL

FILE COPY

FACILITY CONTACTS

Person Name:	Joy Glad
Position:	EHS Coordinator
Facility Name:	Weir Minerals, NA SLC - Rubber Engineering
Mailing Address:	3459 South 700 West Salt Lake City, Utah 84119
Telephone:	801-574-2121

DESCRIPTION OF FACILITY

Weir Minerals, NA SLC – Rubber Engineering (WMRE) is a molded rubber products manufacturer, and is located at 3459 South 700 West, Salt Lake County, Utah. The latitude is 40°41'48" and longitude 111°54'30". The Standard Industrial Classification Code for rubber manufacturing is 3069. The manufacturing plant is approximately 45 years old and processes about 4 million pounds of rubber products a year. The rubber may contain different additives to give different physical properties. The discharge from the factory consists of storm water and both contact water and non-contact cooling water. Contact water and non-contact cooling water are used to control temperature in the manufacturing of rubber parts.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

The effluent limits for Outfall 002 are different from the previous permit. The effluent limits for Outfall 002 are based on rubber manufacturing point source categorical standards. The categorical standards are mass limits based on the production rate. WMRE indicated that the production of rubber product will be approximately four million pounds per year, which is an increase from the previous permit. The change in the production rate will change the categorical subpart from a small-sized to a medium size plant. The medium-size plant categorical standards are found in 40 Code of Federal Regulations 428.62.

DISCHARGE

DESCRIPTION OF DISCHARGE

The plant uses water to maintain constant temperatures (usually warmer than ambient to increase the malleable characteristics of rubber) while manufacturing rubber parts. Some rubber parts are heated with the intent to cure, in pressurized autoclaves with steam (contact water) during which some of the steam condenses and is discharged. After the curing process is completed, contact water is used to cool the rubber parts in the autoclave before it is opened. Non-contact water flows through jackets enveloping processes (warming rubber) while shaping it in presses, extruders, and mills. About 3,000 – 8,000 gallons per day used in the autoclaves flows through the discharge point. The non-contact process water portion of the flow is approximately 100,000

gpd. All discharges from the plant are to the on-site storm water collection system that circles around and drains the outside yard and then flows under the covered factory part of the plant.

The on-site storm drain system connects to the City storm drain on the west side of the plant (the front of the plant just off 700 West) where the flow leaves the property. There is a manhole at this point labeled outfall 001. This is considered the discharge point for the plant and it is where secondary standards must be applied (Outfall 001). A second sampling point (called Outfall 002 even though it is an intermediate discharge, upstream from outfall 001) is in the interior of the plant and consists of the water condensed from the autoclave. Categorical standards from *40 Code of Federal Regulations 428.62* apply at this discharge.

Outfall	Description of Discharge Point
001	Discharge point is located in the west parking lot at latitude 40°41'48" and longitude 111°54'30".
002	Floor drain discharge point located inside the facility near the autoclaves. The discharge is composed mainly of process water, condensed from the autoclaves where steam is used under pressure to cure rubber parts, and cooling water.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into a South Salt Lake City Storm Drain, which flows into Mill Creek, which flows into the Jordan River. Mill Creek from the confluence of the Jordan River to Interstate 15 is classified as 2B, 3C, and 4. The Jordan River from North Temple to the confluence with Little Cottonwood Creek is classified as 2B, 3B, 3C and 4 according to Utah Administrative Code (UAC) R317-2-13:

Class 2B	-Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.
Class 3B	-Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.
Class 3C	-Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.
Class 4	-Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS) and BOD_5 at Outfall 001 are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The Oil and Grease (O&G) limit is based on best professional judgment and is the same as in the previous permit. No flow limits were placed in Outfall 001 because all of the parameters are based on secondary treatment standards. Flow will be monitored to ensure that the WLA flow basis is not exceeded.

Limitations at Outfall 002 are based on applicable technology standards for the Rubber Manufacturing Point Source Category, 40 CFR 428.62, which is for small-sized plants. A medium sized rubber plant processes between 8,200 lbs/day (2.95 million lbs/yr, operating 360 days/yr) and 23,000 lbs/day (8.28 million lbs/year, operating 360 days/yr) of raw materials. WMRE currently operates at 11,100 lbs/day.

The priority pollutant scan that was completed by WMRE shows very low concentration for all pollutants. The discharge from the facility with such a high dilution factor with the receiving water has a very low potential of causing a violation of water quality standards.

Outfall 001

Parameter	Effluent Limitations a/			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
BOD_5, mg/L	25	35	NA	NA
TSS, mg/L	25	35	NA	NA
Oil & Grease, mg/L	NA	NA	NA	10
pH, Standard Units	NA	NA	6.5	9

Outfall 002

Parameter	Effluent Limitations a/	
	Daily Maximum	Monthly Average
Oil & Grease, lbs/day	4.66	1.66
TSS, lbs/day	8.88	4.44

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous. The reporting requirements will be submitted on Discharge Monitoring Report Form (EPA No. 3320-1) or by NetDMR, post-marked or entered into NetDMR no later than the 28th day of the month following the completed reporting period.

Outfall 001

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow b/ c/	Weekly	Instantaneous	gpd
Temperature	Weekly	Grab	° F
BOD_5	Monthly	Grab	mg/L
TSS	Monthly	Grab	mg/L
Total Lead	Yearly	Grab	mg/L
Oil & Grease	Monthly	Grab	mg/L
pH	Monthly	Grab	SU

Outfall 002

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow b/ c/	Weekly	Recorder	gpd
TSS	Monthly	Grab	mg/L
Oil & Grease	Monthly	Grab	mg/L

NA – Not Applicable

WASTE LOAD ANALYSIS AND ANTIDEGRADATION REVIEW

Effluent limitations may also be derived using a Wasteload Analysis (WLA). The WLA incorporated Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During the UPDES renewal development, a WLA and ADR were performed. An ADR Level I review was performed and concluded that an ADR Level II review was not required. The WLA indicates that the effluent limitations should be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters.

STORMWATER REQUIREMENTS

WMRE is currently covered under a separate UPDES Multi Sector General Permit for Industrial Activities, permit number UTR266797.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity (WET) Control (Biomonitoring (2/1991))*. Authority to require effluent biomonitoring is provided in *UAC R317-8, Utah Pollutant Discharge Elimination System* and *UAC R317-2, Water Quality Standards*.

The permittee is minor industrial facility that discharges storm water and cooling water from the manufacturing process, in which toxicity has not been present as previous WET testing has indicated. Since the facility has not changed their processes since the initial WET tests, the potential for toxicity in their discharge remains minimal. Based on these considerations, there is no reasonable potential for toxicity in the permittee's discharge (per *State of Utah Permitting and Enforcement Guidance Document for WET Control)*. As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a

toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by Matthew Garn
Utah Division of Water Quality

May 27, 2014

PUBLIC NOTICE

Began: June 10, 2014
Ended: July 11, 2014
Public Noticed in The Salt Lake Tribune and Deseret News

There were no comments received during the public notice period.

July 14, 2014

DWQ-2014-007443

Utah Division of Water Quality
Salt Lake City, Utah

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WASTELOAD ANALYSIS [WLA]
Addendum: Statement of Basis
SUMMARY

Discharging Facility:	**Rubber Engineering**		
UPDES No:	UT-0024767		
Current Flow:	0.12	MGD	Design Flow
Design Flow	0.12	MGD	

Receiving Water:	**Mill Creek==>Jordan R.**		
Stream Classification:	2B, 3B, 3C, 4		
Stream Flows [cfs]:	6.20	Summer (July-Sept)	20th Percentile
	6.20	Fall (Oct-Dec)	20th Percentile
	6.20	Winter (Jan-Mar)	20th Percentile
	6.20	Spring (Apr-June)	20th Percentile
	0.0	Average	
Stream TDS Values:	735.0	Summer (July-Sept)	Average
	705.0	Fall (Oct-Dec)	Average
	767.0	Winter (Jan-Mar)	Average
	705.0	Spring (Apr-June)	Average

Effluent Limits:				**WQ Standard:**
Flow, MGD:	0.12	MGD	Design Flow	
BOD, mg/l:	25.0	Summer	5.0	Indicator
Dissolved Oxygen, mg/l	4.5	Summer	5.5	30 Day Average
TNH3, Chronic, mg/l:	92.9	Summer	Varies	Function of pH and Temperature
TDS, mg/l:	16730.1	Summer	1200.0	

Modeling Parameters:

Acute River Width:	50.0%
Chronic River Width:	100.0%

Level 1 Antidegradation Level Completed: Level II Review not required.

Date: 1/22/2014

Permit Writer:		
WLA by:	[signature]	1-23-14
WQM Sec. Approval:		
TMDL Sec. Approval:		

WASTELOAD ANALYSIS [WLA]
Addendum: Statement of Basis

22-Jan-14
4:00 PM

Facilities: **Rubber Engineering** **UPDES No: UT-0024767**
Discharging to: **Mill Creek==>Jordan R.**

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 interms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharges. 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

Mill Creek==>Jordan R.:	2B, 3B, 3C, 4
Antidegradation Review:	Level I review completed. Level II review 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)	5.50 mg/l (30 Day Average) 4.00 mg/l (7Day Average) 3.00 mg/l (1 Day Average
Maximum Total Dissolved Solids	1200.0 mg/l

Utah Division of Water Quality
Salt Lake City, Utah

Acute and Chronic Heavy Metals (Dissolved)

Parameter	4 Day Average (Chronic) Standard Concentration		Load*	1 Hour Average (Acute) Standard Concentration		Load*
Aluminum	87.00	ug/l**	0.087 lbs/day	750.00	ug/l	0.752 lbs/day
Arsenic	190.00	ug/l	0.190 lbs/day	340.00	ug/l	0.341 lbs/day
Cadmium	0.62	ug/l	0.001 lbs/day	6.59	ug/l	0.007 lbs/day
Chromium III	213.82	ug/l	0.214 lbs/day	4473.63	ug/l	4.485 lbs/day
ChromiumVI	11.00	ug/l	0.011 lbs/day	16.00	ug/l	0.016 lbs/day
Copper	24.08	ug/l	0.024 lbs/day	39.82	ug/l	0.040 lbs/day
Iron				1000.00	ug/l	1.003 lbs/day
Lead	13.06	ug/l	0.013 lbs/day	335.24	ug/l	0.336 lbs/day
Mercury	0.0120	ug/l	0.000 lbs/day	2.40	ug/l	0.002 lbs/day
Nickel	133.36	ug/l	0.134 lbs/day	1199.49	ug/l	1.203 lbs/day
Selenium	4.60	ug/l	0.005 lbs/day	20.00	ug/l	0.020 lbs/day
Silver	N/A	ug/l	N/A lbs/day	25.52	ug/l	0.026 lbs/day
Zinc	306.77	ug/l	0.308 lbs/day	306.77	ug/l	0.308 lbs/day

* Allowed below discharge

**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as CaCO3

Metals Standards Based upon a Hardness of 303.3 mg/l as CaCO3

Organics [Pesticides]

Parameter	4 Day Average (Chronic) Standard Concentration		Load*	1 Hour Average (Acute) Standard Concentration		Load*
Aldrin				1.500	ug/l	0.002 lbs/day
Chlordane	0.004	ug/l	0.148 lbs/day	1.200	ug/l	0.001 lbs/day
DDT, DDE	0.001	ug/l	0.034 lbs/day	0.550	ug/l	0.001 lbs/day
Dieldrin	0.002	ug/l	0.065 lbs/day	1.250	ug/l	0.001 lbs/day
Endosulfan	0.056	ug/l	1.927 lbs/day	0.110	ug/l	0.000 lbs/day
Endrin	0.002	ug/l	0.079 lbs/day	0.090	ug/l	0.000 lbs/day
Guthion				0.010	ug/l	0.000 lbs/day
Heptachlor	0.004	ug/l	0.131 lbs/day	0.260	ug/l	0.000 lbs/day
Lindane	0.080	ug/l	2.753 lbs/day	1.000	ug/l	0.001 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	0.482 lbs/day	2.000	ug/l	0.002 lbs/day
Pentachlorophenol	13.00	ug/l	447.442 lbs/day	20.000	ug/l	0.020 lbs/day
Toxephene	0.0002	ug/l	0.007 lbs/day	0.7300	ug/l	0.001 lbs/day

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
	Concentration	Load*	Concentration	Load*
Arsenic			100.0 ug/l	lbs/day
Boron			750.0 ug/l	lbs/day
Cadmium			10.0 ug/l	0.01 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
TDS, Summer			1200.0 mg/l	0.60 tons/day

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

	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
Metals	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
ocyclohexane (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]

	Maximum Conc., ug/l - Acute Standards			
	Class 1C		Class 3A, 3B	
Toxic Organics	[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	92.93 lbs/day
Acrolein	ug/l	lbs/day	780.0 ug/l	26.85 lbs/day
Acrylonitrile	ug/l	lbs/day	0.7 ug/l	0.02 lbs/day
Benzene	ug/l	lbs/day	71.0 ug/l	2.44 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	0.15 lbs/day
Chlorobenzene	ug/l	lbs/day	21000.0 ug/l	722.79 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	3.41 lbs/day

1,1,1-Trichloroethane						
Hexachloroethane	ug/l	lbs/day	8.9	ug/l	0.31	lbs/day
1,1-Dichloroethane						
1,1,2-Trichloroethane	ug/l	lbs/day	42.0	ug/l	1.45	lbs/day
1,1,2,2-Tetrachloroethai	ug/l	lbs/day	11.0	ug/l	0.38	lbs/day
Chloroethane			0.0	ug/l	0.00	lbs/day
Bis(2-chloroethyl) ether	ug/l	lbs/day	1.4	ug/l	0.05	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	148.00	lbs/day
2,4,6-Trichlorophenol	ug/l	lbs/day	6.5	ug/l	0.22	lbs/day
p-Chloro-m-cresol			0.0	ug/l	0.00	lbs/day
Chloroform (HM)	ug/l	lbs/day	470.0	ug/l	16.18	lbs/day
2-Chlorophenol	ug/l	lbs/day	400.0	ug/l	13.77	lbs/day
1,2-Dichlorobenzene	ug/l	lbs/day	17000.0	ug/l	585.12	lbs/day
1,3-Dichlorobenzene	ug/l	lbs/day	2600.0	ug/l	89.49	lbs/day
1,4-Dichlorobenzene	ug/l	lbs/day	2600.0	ug/l	89.49	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	0.11	lbs/day
1,2-trans-Dichloroethyle	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
2,4-Dichlorophenol	ug/l	lbs/day	790.0	ug/l	27.19	lbs/day
1,2-Dichloropropane	ug/l	lbs/day	39.0	ug/l	1.34	lbs/day
1,3-Dichloropropylene	ug/l	lbs/day	1700.0	ug/l	58.51	lbs/day
2,4-Dimethylphenol	ug/l	lbs/day	2300.0	ug/l	79.16	lbs/day
2,4-Dinitrotoluene	ug/l	lbs/day	9.1	ug/l	0.31	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	0.02	lbs/day
Ethylbenzene	ug/l	lbs/day	29000.0	ug/l	998.14	lbs/day
Fluoranthene	ug/l	lbs/day	370.0	ug/l	12.73	lbs/day
4-Chlorophenyl phenyl ether						
4-Bromophenyl phenyl ether						
Bis(2-chloroisopropyl) e	ug/l	lbs/day	170000.0	ug/l	5851.16	lbs/day
Bis(2-chloroethoxy) met	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Methylene chloride (HM	ug/l	lbs/day	1600.0	ug/l	55.07	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	12.39	lbs/day
Dichlorobromomethane	ug/l	lbs/day	22.0	ug/l	0.76	lbs/day
Chlorodibromomethane	ug/l	lbs/day	34.0	ug/l	1.17	lbs/day
Hexachlorobutadiene(c)	ug/l	lbs/day	50.0	ug/l	1.72	lbs/day
Hexachlorocyclopentadi	ug/l	lbs/day	17000.0	ug/l	585.12	lbs/day
Isophorone	ug/l	lbs/day	600.0	ug/l	20.65	lbs/day
Naphthalene						
Nitrobenzene	ug/l	lbs/day	1900.0	ug/l	65.40	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	481.86	lbs/day
4,6-Dinitro-o-cresol	ug/l	lbs/day	765.0	ug/l	26.33	lbs/day
N-Nitrosodimethylamine	ug/l	lbs/day	8.1	ug/l	0.28	lbs/day
N-Nitrosodiphenylamine	ug/l	lbs/day	16.0	ug/l	0.55	lbs/day
N-Nitrosodi-n-propylami	ug/l	lbs/day	1.4	ug/l	0.05	lbs/day
Pentachlorophenol	ug/l	lbs/day	8.2	ug/l	0.28	lbs/day

Phenol	ug/l	lbs/day	4.6E+06	ug/l	1.58E+05	lbs/day
Bis(2-ethylhexyl)phthala	ug/l	lbs/day	5.9	ug/l	0.20	lbs/day
Butyl benzyl phthalate	ug/l	lbs/day	5200.0	ug/l	178.98	lbs/day
Di-n-butyl phthalate	ug/l	lbs/day	12000.0	ug/l	413.02	lbs/day
Di-n-octyl phthlate						
Diethyl phthalate	ug/l	lbs/day	120000.0	ug/l	4130.23	lbs/day
Dimethyl phthlate	ug/l	lbs/day	2.9E+06	ug/l	9.98E+04	lbs/day
Benzo(a)anthracene (P/	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 (F	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Benzo(k)fluoranthene (F	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	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Indeno(1,2,3-cd)pyrene	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Pyrene (PAH)	ug/l	lbs/day	11000.0	ug/l	378.60	lbs/day
Tetrachloroethylene	ug/l	lbs/day	8.9	ug/l	0.31	lbs/day
Toluene	ug/l	lbs/day	200000	ug/l	6883.72	lbs/day
Trichloroethylene	ug/l	lbs/day	81.0	ug/l	2.79	lbs/day
Vinyl chloride	ug/l	lbs/day	525.0	ug/l	18.07	lbs/day
						lbs/day
Pesticides						lbs/day
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	0.07	lbs/day
beta-Endosulfan	ug/l	lbs/day	2.0	ug/l	0.07	lbs/day
Endosulfan sulfate	ug/l	lbs/day	2.0	ug/l	0.07	lbs/day
Endrin	ug/l	lbs/day	0.8	ug/l	0.03	lbs/day
Endrin aldehyde	ug/l	lbs/day	0.8	ug/l	0.03	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						
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	148.00 lbs/day
Asbestos	ug/l	lbs/day		
Beryllium				
Cadmium				
Chromium (III)				
Chromium (VI)				
Copper				
Cyanide	ug/l	lbs/day	2.2E+05 ug/l	7572.09 lbs/day
Lead	ug/l	lbs/day		
Mercury			0.15 ug/l	0.01 lbs/day
Nickel			4600.00 ug/l	158.33 lbs/day
Selenium	ug/l	lbs/day		
Silver	ug/l	lbs/day		
Thallium			6.30 ug/l	0.22 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.

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.

Current Upstream Information

	Stream Critical Low Flow cfs	Temp. Deg. C	pH	T-NH3 mg/l as N	BOD5 mg/l	DO mg/l	TRC mg/l	TDS mg/l
Summer (Irrig. Season)	6.20	20.6	7.5	0.40	0.05	6.90	0.00	735.0
Fall	6.20	14.5	7.6	0.60	0.05	---	0.00	705.0
Winter	6.20	11.5	7.4	1.30	0.05	---	0.00	767.0
Spring	6.20	15.1	7.9	0.50	0.05	---	0.00	705.0

Dissolved Metals All Seasons	Al ug/l	As ug/l	Cd ug/l	CrIII ug/l	CrVI ug/l	Copper ug/l	Fe ug/l	Pb ug/l
	1.59*	0.53*	0.053*	0.53*	2.65*	0.53*	0.83*	0.53*

Dissolved Metals All Seasons	Hg ug/l	Ni ug/l	Se ug/l	Ag ug/l	Zn ug/l	Boron ug/l
	0.0000	0.53*	1.06*	0.1*	0.053*	10.0

* 1/2 MDL

Projected Discharge Information

Season	Flow, MGD	Temp.	TDS mg/l	TDS tons/day
Summer	0.12000	24.9	388.00	0.19412
Fall	0.12000	18.6		
Winter	0.12000	14.8		
Spring	0.12000	19.9		

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:

Season	Daily Average	
Summer	0.120 MGD	0.186 cfs
Fall	0.120 MGD	0.186 cfs
Winter	0.120 MGD	0.186 cfs
Spring	0.120 MGD	0.186 cfs

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 0.12 MGD. If the discharger is allowed to have a flow greater than 0.12 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occuring, the permit writers must include the discharge flow limititation 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 segements if the values below are met.

WET Requirements	LC50 >	20.0% Effluent	[Acute]
	IC25 >	2.9% Effluent	[Chronic]

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

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

Season	Concentration	
Summer	25.0 mg/l as BOD5	25.0 lbs/day
Fall	25.0 mg/l as BOD5	25.0 lbs/day
Winter	25.0 mg/l as BOD5	25.0 lbs/day
Spring	25.0 mg/l as BOD5	25.0 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	4.50
Fall	4.50
Winter	4.50
Spring	4.50

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	92.9	mg/l as N	92.9	lbs/day
	1 Hour Avg. - Acute	232.7	mg/l as N	232.8	lbs/day
Fall	4 Day Avg. - Chronic	115.9	mg/l as N	115.9	lbs/day
	1 Hour Avg. - Acute	182.6	mg/l as N	182.7	lbs/day
Winter	4 Day Avg. - Chronic	120.1	mg/l as N	120.1	lbs/day
	1 Hour Avg. - Acute	204.8	mg/l as N	204.9	lbs/day
Spring	4 Day Avg. - Chronic	115.9	mg/l as N	115.9	lbs/day
	1 Hour Avg. - Acute	182.6	mg/l as N	182.7	lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 50.%.

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	
Summer	4 Day Avg. - Chronic	0.344	mg/l	0.34	lbs/day
	1 Hour Avg. - Acute	0.319	mg/l	0.32	lbs/day
Fall	4 Day Avg. - Chronic	0.344	mg/l	0.34	lbs/day
	1 Hour Avg. - Acute	0.319	mg/l	0.32	lbs/day
Winter	4 Day Avg. - Chronic	0.344	mg/l	0.34	lbs/day
	1 Hour Avg. - Acute	0.319	mg/l	0.32	lbs/day
Spring	4 Day Avg. - Chronic	0.344	mg/l	0.00	lbs/day
	1 Hour Avg. - Acute	0.319	mg/l	0.00	lbs/day

Effluent Limitations for Total Dissolved Solids based upon Water Quality Standards

Season		Concentration		Load	
Summer	Maximum, Acute	16730.1	mg/l	8.37	tons/day
Fall	Maximum, Acute	17732.0	mg/l	8.87	tons/day
Winter	Maximum, Acute	15661.3	mg/l	7.84	tons/day
Spring	4 Day Avg. - Chronic	17732.0	mg/l	8.87	tons/day

Colorado Salinity Forum Limits — Determined by Permitting Section

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 303.3 mg/l):

	4 Day Average			1 Hour Average		
	Concentration		Load	Concentration		Load
Aluminum*	N/A		N/A	13,234.4	ug/l	13.3 lbs/day
Arsenic*	6,509.06	ug/l	4.2 lbs/day	6,004.4	ug/l	6.0 lbs/day
Cadmium	18.52	ug/l	0.0 lbs/day	115.3	ug/l	0.1 lbs/day
Chromium III	7,328.59	ug/l	4.7 lbs/day	79,165.4	ug/l	79.4 lbs/day
Chromium VI*	245.62	ug/l	0.2 lbs/day	216.8	ug/l	0.2 lbs/day
Copper	801.63	ug/l	0.5 lbs/day	691.5	ug/l	0.7 lbs/day
Iron*	N/A		N/A	17,678.1	ug/l	17.7 lbs/day
Lead	422.82	ug/l	0.3 lbs/day	5,920.1	ug/l	5.9 lbs/day
Mercury*	0.41	ug/l	0.0 lbs/day	42.5	ug/l	0.0 lbs/day
Nickel	4,560.78	ug/l	2.9 lbs/day	21,216.5	ug/l	21.3 lbs/day
Selenium*	105.13	ug/l	0.1 lbs/day	327.4	ug/l	0.3 lbs/day
Silver	N/A	ug/l	N/A lbs/day	451.6	ug/l	0.5 lbs/day

Zinc	10,549.46	ug/l	6.8	lbs/day	5,428.1	ug/l	5.4 lbs/day
Cyanide*	178.87	ug/l	0.1	lbs/day	389.4	ug/l	0.4 lbs/day

*Limits for these metals are based on the dissolved standard.

Effluent Limitations for Heat/Temperature based upon Water Quality Standards

Summer	56.0 Deg. C.	132.8 Deg. F
Fall	49.9 Deg. C.	121.8 Deg. F
Winter	46.9 Deg. C.	116.4 Deg. F
Spring	50.5 Deg. C.	122.9 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	2.33E-03 lbs/day
Chlordane	4.30E-03 ug/l	4.30E-03 lbs/day	1.2E+00	ug/l	1.86E-03 lbs/day
DDT, DDE	1.00E-03 ug/l	1.00E-03 lbs/day	5.5E-01	ug/l	8.53E-04 lbs/day
Dieldrin	1.90E-03 ug/l	1.90E-03 lbs/day	1.3E+00	ug/l	1.94E-03 lbs/day
Endosulfan	5.60E-02 ug/l	5.60E-02 lbs/day	1.1E-01	ug/l	1.71E-04 lbs/day
Endrin	2.30E-03 ug/l	2.30E-03 lbs/day	9.0E-02	ug/l	1.40E-04 lbs/day
Guthion	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	1.55E-05 lbs/day
Heptachlor	3.80E-03 ug/l	3.80E-03 lbs/day	2.6E-01	ug/l	4.03E-04 lbs/day
Lindane	8.00E-02 ug/l	8.00E-02 lbs/day	1.0E+00	ug/l	1.55E-03 lbs/day
Methoxychlor	0.00E+00 ug/l	0.00E+00 lbs/day	3.0E-02	ug/l	4.65E-05 lbs/day
Mirex	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	1.55E-05 lbs/day
Parathion	0.00E+00 ug/l	0.00E+00 lbs/day	4.0E-02	ug/l	6.20E-05 lbs/day
PCB's	1.40E-02 ug/l	1.40E-02 lbs/day	2.0E+00	ug/l	3.10E-03 lbs/day
Pentachlorophenol	1.30E+01 ug/l	1.30E+01 lbs/day	2.0E+01	ug/l	3.10E-02 lbs/day
Toxephene	2.00E-04 ug/l	2.00E-04 lbs/day	7.3E-01	ug/l	1.13E-03 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	5.0 lbs/day
Nitrates as N	4.0 mg/l	4.0 lbs/day
Total Phosphorus as P	0.05 mg/l	0.1 lbs/day
Total Suspended Solids	90.0 mg/l	90.2 lbs/day

Note: Pollution indicator targets are for information purposes only.

Effluent Limitations for Protection of Human Health [Toxics Rule]
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	9.29E+04 ug/l	9.29E+01 lbs/day
Acrolein	2.68E+04 ug/l	2.68E+01 lbs/day
Acrylonitrile	2.27E+01 ug/l	2.27E-02 lbs/day
Benzene	2.44E+03 ug/l	2.44E+00 lbs/day
Benzidine	ug/l	lbs/day
Carbon tetrachloride	1.51E+02 ug/l	1.51E-01 lbs/day
Chlorobenzene	7.22E+05 ug/l	7.23E+02 lbs/day
1,2,4-Trichlorobenzene		
Hexachlorobenzene	2.65E-02 ug/l	2.65E-05 lbs/day
1,2-Dichloroethane	3.41E+03 ug/l	3.41E+00 lbs/day
1,1,1-Trichloroethane		
Hexachloroethane	3.06E+02 ug/l	3.06E-01 lbs/day
1,1-Dichloroethane		
1,1,2-Trichloroethane	1.44E+03 ug/l	1.45E+00 lbs/day
1,1,2,2-Tetrachloroethane	3.78E+02 ug/l	3.79E-01 lbs/day
Chloroethane		
Bis(2-chloroethyl) ether	4.82E+01 ug/l	4.82E-02 lbs/day
2-Chloroethyl vinyl ether		
2-Chloronaphthalene	1.48E+05 ug/l	1.48E+02 lbs/day
2,4,6-Trichlorophenol	2.24E+02 ug/l	2.24E-01 lbs/day
p-Chloro-m-cresol		
Chloroform (HM)	1.62E+04 ug/l	1.62E+01 lbs/day
2-Chlorophenol	1.38E+04 ug/l	1.38E+01 lbs/day
1,2-Dichlorobenzene	5.85E+05 ug/l	5.85E+02 lbs/day
1,3-Dichlorobenzene	8.94E+04 ug/l	8.95E+01 lbs/day

1,4-Dichlorobenzene	8.94E+04 ug/l	8.95E+01 lbs/day
3,3'-Dichlorobenzidine	2.65E+00 ug/l	2.65E-03 lbs/day
1,1-Dichloroethylene	1.10E+02 ug/l	1.10E-01 lbs/day
1,2-trans-Dichloroethylene1		
2,4-Dichlorophenol	2.72E+04 ug/l	2.72E+01 lbs/day
1,2-Dichloropropane	1.34E+03 ug/l	1.34E+00 lbs/day
1,3-Dichloropropylene	5.85E+04 ug/l	5.85E+01 lbs/day
2,4-Dimethylphenol	7.91E+04 ug/l	7.92E+01 lbs/day
2,4-Dinitrotoluene	3.13E+02 ug/l	3.13E-01 lbs/day
2,6-Dinitrotoluene		
1,2-Diphenylhydrazine	1.86E+01 ug/l	1.86E-02 lbs/day
Ethylbenzene	9.98E+05 ug/l	9.98E+02 lbs/day
Fluoranthene	1.27E+04 ug/l	1.27E+01 lbs/day
4-Chlorophenyl phenyl ether		
4-Bromophenyl phenyl ether		
Bis(2-chloroisopropyl) ether	5.85E+06 ug/l	5.85E+03 lbs/day
Bis(2-chloroethoxy) methane		
Methylene chloride (HM)	5.50E+04 ug/l	5.51E+01 lbs/day
Methyl chloride (HM)		
Methyl bromide (HM)		
Bromoform (HM)	1.24E+04 ug/l	1.24E+01 lbs/day
Dichlorobromomethane(HM)	7.57E+02 ug/l	7.57E-01 lbs/day
Chlorodibromomethane (HM)	1.17E+03 ug/l	1.17E+00 lbs/day
Hexachlorocyclopentadiene	5.85E+05 ug/l	5.85E+02 lbs/day
Isophorone	2.06E+04 ug/l	2.07E+01 lbs/day
Naphthalene		
Nitrobenzene	6.54E+04 ug/l	6.54E+01 lbs/day
2-Nitrophenol		
4-Nitrophenol		
2,4-Dinitrophenol	4.82E+05 ug/l	4.82E+02 lbs/day
4,6-Dinitro-o-cresol	2.63E+04 ug/l	2.63E+01 lbs/day
N-Nitrosodimethylamine	2.79E+02 ug/l	2.79E-01 lbs/day
N-Nitrosodiphenylamine	5.50E+02 ug/l	5.51E-01 lbs/day
N-Nitrosodi-n-propylamine	4.82E+01 ug/l	4.82E-02 lbs/day
Pentachlorophenol	2.82E+02 ug/l	2.82E-01 lbs/day
Phenol	1.58E+08 ug/l	1.58E+05 lbs/day
Bis(2-ethylhexyl)phthalate	2.03E+02 ug/l	2.03E-01 lbs/day
Butyl benzyl phthalate	1.79E+05 ug/l	1.79E+02 lbs/day
Di-n-butyl phthalate	4.13E+05 ug/l	4.13E+02 lbs/day
Di-n-octyl phthlate		
Diethyl phthalate	4.13E+06 ug/l	4.13E+03 lbs/day
Dimethyl phthlate	9.98E+07 ug/l	9.98E+04 lbs/day
Benzo(a)anthracene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Benzo(a)pyrene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Benzo(b)fluoranthene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Benzo(k)fluoranthene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Chrysene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Acenaphthylene (PAH)		
Anthracene (PAH)		
Dibenzo(a,h)anthracene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	1.07E+00 ug/l	1.07E-03 lbs/day

Pyrene (PAH)	3.78E+05 ug/l	3.79E+02 lbs/day
Tetrachloroethylene	3.06E+02 ug/l	3.06E-01 lbs/day
Toluene	6.88E+06 ug/l	6.88E+03 lbs/day
Trichloroethylene	2.79E+03 ug/l	2.79E+00 lbs/day
Vinyl chloride	1.81E+04 ug/l	1.81E+01 lbs/day
Pesticides		
Aldrin	4.82E-03 ug/l	4.82E-06 lbs/day
Dieldrin	4.82E-03 ug/l	4.82E-06 lbs/day
Chlordane	2.03E-02 ug/l	2.03E-05 lbs/day
4,4'-DDT	2.03E-02 ug/l	2.03E-05 lbs/day
4,4'-DDE	2.03E-02 ug/l	2.03E-05 lbs/day
4,4'-DDD	2.89E-02 ug/l	2.89E-05 lbs/day
alpha-Endosulfan	6.88E+01 ug/l	6.88E-02 lbs/day
beta-Endosulfan	6.88E+01 ug/l	6.88E-02 lbs/day
Endosulfan sulfate	6.88E+01 ug/l	6.88E-02 lbs/day
Endrin	2.79E+01 ug/l	2.79E-02 lbs/day
Endrin aldehyde	2.79E+01 ug/l	2.79E-02 lbs/day
Heptachlor	7.22E-03 ug/l	7.23E-06 lbs/day
Heptachlor epoxide		
PCB's		
PCB 1242 (Arochlor 1242)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1254 (Arochlor 1254)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1221 (Arochlor 1221)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1232 (Arochlor 1232)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1248 (Arochlor 1248)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1260 (Arochlor 1260)	1.55E-03 ug/l	1.55E-06 lbs/day
PCB-1016 (Arochlor 1016)	1.55E-03 ug/l	1.55E-06 lbs/day
Pesticide		
Toxaphene	2.58E-02 ug/l	2.58E-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)	4.82E-07 ug/l	4.82E-10 lbs/day

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

	Class 4 Acute Agricultural ug/l	Class 3 Acute Aquatic Wildlife ug/l	Acute Toxics Drinking Water Source ug/l	Acute Toxics Wildlife ug/l	1C Acute Health Criteria ug/l	Acute Most Stringent ug/l	Class 3 Chronic Aquatic Wildlife ug/l
Aluminum		13234.4				13234.4	N/A
Antimony				147911.3		147911.3	
Arsenic	3439.8	6004.4			0.0	3439.8	6509.1
Barium						0.0	
Beryllium						0.0	
Cadmium	341.3	115.3			0.0	115.3	18.5
Chromium (III)		79165.4			0.0	79165.4	7328.6
Chromium (VI)	3413.2	216.8			0.0	216.81	245.62
Copper	6853.0	691.5				691.5	801.6
Cyanide		389.4	7567554.4			389.4	178.9
Iron		17678.1				17678.1	
Lead	3413.2	5920.1			0.0	3413.2	422.8
Mercury		42.48		5.16	0.0	5.16	0.413
Nickel		21216.5		158230.7		21216.5	4560.8
Selenium	1666.8	327.4			0.0	327.4	105.1
Silver		451.6			0.0	451.6	
Thallium				216.7		216.7	
Zinc		5428.1				5428.1	10549.5
Boron	25798.5					25798.5	

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	13234.4	N/A	
Antimony	147911.29		
Arsenic	3439.8	6509.1	Acute Controls
Asbestos	0.00E+00		
Barium			
Beryllium			
Cadmium	115.3	18.5	
Chromium (III)	79165.4	7329	
Chromium (VI)	216.8	245.6	Acute Controls
Copper	691.5	801.6	Acute Controls

Cyanide	389.4	178.9	
Iron	17678.1		
Lead	3413.2	422.8	
Mercury	5.160	0.413	
Nickel	21216.5	4561	
Selenium	327.4	105.1	
Silver	451.6	N/A	
Thallium	216.7		
Zinc	5428.1	10549.5	Acute Controls
Boron	25798.48		

Other Effluent Limitations are based upon R317-1.

E. coli	126.0	organisms per 100 ml

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.

An Antidegradation Level I Review was conducted on this discharge and its effect on the receiving water. Based upon that review, it has been determined that an Antidegradation Level II Review is not required. Basic renewal, no increase in effluent flow or concentration.

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.

Antidegredation Review

An antidegradation review (ADR) was conducted to determine whether the proposed activity complies with the applicable antidegradation requirements for receiving waters that may be affected. The Level I ADR evaluated the criteria of R317-2-3.5(b) and determined that the proposed discharge will not require a Level II Antidegradation Review. The proposed permit is a simple renewal. No increase in effluent flow or concentration.

FILE COPY

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"*),

WEIR MINERALS NA SLC – RUBBER ENGINEERING

is hereby authorized to discharge from its facility located in Salt Lake City, Utah, with the outfall(s) located at latitude 40°41'48" and longitude 111°54'30" to receiving waters named

TO THE SOUTH SALT LAKE CITY STORM DRAIN THEN TO MILL CREEK ,

in accordance with discharge points, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on August 1, 2014

This permit expires at midnight, July, 31, 2019

Signed the 17th day of July, 2014

John J. Whitehead
Acting Director

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I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. 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. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.

3. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

4. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

5. "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.

6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

7. "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.

8. "Director" means the Director of the Division of Water Quality.

9. "EPA" means the United States Environmental Protection Agency.

10. "Act" means the "*Utah Water Quality Act*".

11. "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.

12. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987.*

13. "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 discharges. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.

14. "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*).

15. "Waste pile" means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

B. Description of Discharge Point(s).

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	Location of Discharge Point(s)
001	Discharge point is located in the west parking lot at latitude 40°41'48" and longitude 111°54'30".
002	Floor drain discharge point located inside the facility near the autoclaves. The discharge is composed mainly of process water, condensed from the autoclaves where steam is used under pressure to cure rubber parts, and cooling water.

C. 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.

D. Specific Limitations and Self-monitoring Requirements.

1. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfall 001 and Outfall 002. Such discharges shall be limited and monitored by the permittee as specified below:

Outfall 001

Parameter	Effluent Limitations a/			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
BOD_5, mg/L	25	35	NA	NA
TSS, mg/L	25	35	NA	NA
Oil & Grease, mg/L	NA	NA	NA	10
pH, Standard Units	NA	NA	6.5	9

Outfall 002

Parameter	Effluent Limitations a/	
	Daily Maximum	Monthly Average
Oil & Grease, lbs/day	4.66	1.66
TSS, lbs/day	8.88	4.44

Outfall 001

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow b/ c/	Weekly	Instantaneous	gpd
Temperature	Weekly	Grab	° F
BOD_5	Monthly	Grab	mg/L
TSS	Monthly	Grab	mg/L
Total Lead	Yearly	Grab	mg/L
Oil & Grease	Monthly	Grab	mg/L
pH	Monthly	Grab	SU

Outfall 002

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow b/ c/	Weekly	Recorder	gpd
TSS	Monthly	Grab	mg/L
Oil & Grease	Monthly	Grab	mg/L

NA – Not Applicable

a/ See Definitions, *Part I.A.*, for definition of terms.

b/ Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

c/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at Outfall 001 and Outfall 002.

II. 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.

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) or by NetDMR, post-marked or entered into NetDMR no later than the 28th day of the month following the completed reporting period. 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 by NetDMR, or to the Division of Water Quality at the following address:

Department of Environmental Quality
Division of Water Quality
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 Director 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) 536-4300, 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;

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 Director 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 Director, 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.

III. 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 Director 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 Director may take 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 judgment 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 III.G.3.

   b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in sections III.G.2a. 1), 2) and 3).

3. Notice.

   a. Anticipated bypass. Except as provided above in section III.G.2. and below in section III.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 Director:

      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 Director 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 Director.

b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in section III.G.3.a.(1) through (6) to the extent practicable.

c. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass to the Director 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. Director'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 Director 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 R317-8-3.5(7)* or (10); or,

   d. The level established by the Director 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 R317-8-3.5(9)*; or,

   d. The level established by the Director 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).

IV. GENERAL REQUIREMENTS

A. Planned Changes.
The permittee shall give notice to the Director 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 Director of any planned changes at least 30 days prior to their implementation.

B. Anticipated Noncompliance.
The permittee shall give advance notice to the Director 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 Director, within a reasonable time, any information which the Director 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 Director, 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 Director, it shall promptly submit such facts or information.

G. Signatory Requirements.
All applications, reports or information submitted to the Director 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 Director 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 Director, 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 Director 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:

> "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 Director. 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 Director 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 Director 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.

Q. Storm Water-Reopener Provision.
At any time during the duration (life) of this permit, this permit may be reopened and modified (following proper administrative procedures) as per *UAC R317.8*, to include, any applicable storm water provisions and requirements, a storm water pollution prevention plan, a compliance schedule, a compliance date, monitoring and/or reporting requirements, or any other conditions related to the control of storm water discharges to "waters-of-the-State".