

**MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

AUTHORIZATION TO DISCHARGE UNDER THE
MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. § 1251 *et seq.*,

Phillips 66 Company

is authorized to discharge from its **Phillips 66 Billings Refinery**

located at **401 S. 23rd St. Billings, Montana 59107**

to receiving waters named, **Yegen Drain and Yellowstone River**

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit. The wasteload allocation specified herein support and serve to define the total maximum daily load for affected receiving water.

This permit shall become effective: **December 1, 2009.**

This permit and the authorization to discharge shall expire at midnight, **November 30, 2014.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY



Jon Kenning, Chief
Water Protection Bureau
Permitting & Compliance Division

Modified: July 2, 2014

TABLE OF CONTENTS

Cover Sheet--Issuance and Expiration Dates

I.	EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS	3
A.	Description of Discharge Points and Mixing Zone	3
B.	Effluent Limitations	4
C.	Monitoring Requirements	10
D.	Special Conditions	18
II.	MONITORING, RECORDING AND REPORTING REQUIREMENTS	27
A.	Representative Sampling	27
B.	Monitoring Procedures	27
C.	Penalties for Tampering	27
D.	Reporting of Monitoring Results.....	27
E.	Compliance Schedules	27
F.	Additional Monitoring by the Permittee	28
G.	Records Contents	28
H.	Retention of Records.....	28
I.	Twenty-four Hour Notice of Noncompliance Reporting	28
J.	Other Noncompliance Reporting	29
K.	Inspection and Entry	29
III.	COMPLIANCE RESPONSIBILITIES	31
A.	Duty to Comply	31
B.	Penalties for Violations of Permit Conditions.....	31
C.	Need to Halt or Reduce Activity not a Defense	31
D.	Duty to Mitigate	31
E.	Proper Operation and Maintenance.....	31
F.	Removed Substances.....	32
G.	Bypass of Treatment Facilities	32
H.	Upset Conditions.....	33
I.	Toxic Pollutants	33
J.	Changes in Discharge of Toxic Substances	33
IV.	GENERAL REQUIREMENTS	35
A.	Planned Changes	35
B.	Anticipated Noncompliance	35
C.	Permit Actions.....	35
D.	Duty to Reapply	35
E.	Duty to Provide Information	35
F.	Other Information.....	35
G.	Signatory Requirements	35
H.	Penalties for Falsification of Reports	37
I.	Availability of Reports	37
J.	Oil and Hazardous Substance Liability	37
K.	Property or Water Rights.....	37
L.	Severability	37
M.	Transfers.....	37
N.	Fees	38
O.	Reopener Provisions.....	38
V.	DEFINITIONS	40

I. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zone

The authorization to discharge provided under this permit is limited to those outfalls specially designated below as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

<u>Outfall</u>	<u>Description</u>
001	<p>Location: At the end of the pipe, discharging into the Yegen Drain, located at 45.7815 N latitude, 108.48461 W longitude.</p> <p>Mixing Zone: (001) The maximum extent of the chronic mixing zone in the named receiving waters is as follows: 200 feet downstream for the following parameters: ammonia and selenium.</p>
002	<p>Location: Hydrostatic test wastewater discharge at the end of the pipe, discharging to the Yegen Drain located at 45.7815 N latitude, 108.48461 W longitude.</p> <p>Mixing Zone: (002) The maximum extent of the chronic mixing zone in the named receiving waters is as follows: 200 feet downstream for the following parameters: ammonia and selenium.</p>
003	<p>Location: Storm water discharging at the end of pipe, to the Yegen Drain located at 45.77639 N Latitude, 108.48861 W longitude.</p> <p>Mixing Zone: None</p>
004	<p>Location: Storm water discharging at the end of pipe, to the Yegen Drain located at 45.78167 N latitude, 108.48444 W longitude.</p> <p>Mixing Zone: None</p>
005	<p>Location: Storm water discharging at the end of pipe, to the Yegen Drain located at 45.78694 N latitude, 108.48528 W longitude</p> <p>Mixing Zone: None</p>

006

Location: At the end pipe, discharging into the Yellowstone River at, 45.79639 N latitude, -108.46972 W longitude.

Mixing Zone: The maximum extent of the chronic mixing zone in the Yellowstone River is as follows: 1,000 feet downstream from the effluent diffuser. The chronic mixing zone is for the following parameters: total ammonia, nitrate plus nitrite, total cyanide, and the total recoverable metals, selenium, copper, iron, and zinc.

The maximum extent of the acute mixing zone in the Yellowstone River is as follows: 100 feet downstream from the effluent diffuser. The acute mixing zone is for the following parameters: total ammonia, total cyanide, and the total recoverable metals, selenium, copper, and zinc.

B. Effluent Limitations

1. Interim Limits

Beginning on the effective date of this permit and continuing through midnight **May 30, 2014** the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Numeric Effluent Limitations Outfall 001-A⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit⁽²⁾
Oil and Grease	mg/L	10	NA
Total Residual Oxidant as Chlorine ^(3,4)	mg/L	0.019	0.011
NA Not Applicable (1) See the definitions in Part V. of the permit for explanation of terms. (2) Calculations are based on the average of the daily loads for the reporting period. (3) Limit applies when hydrostatic test wastewater is routed through wastewater treatment system (4) Analyses less than the RRV shall be considered in compliance with these effluent limits			

The pH of the discharge shall remain between 6 and 9 standards units at all times.

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 001.

Numeric Effluent Limitations Outfall 002-A ⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit
Oil and Grease	mg/L	10	NA
Total Residual Oxidant as Chlorine ⁽²⁾	mg/L	0.019	0.011
NA Not Applicable (1) See the definitions in Part V. of the permit for explanation of terms. (2) Analyses less than the RRV shall be considered in compliance with these effluent limits			

The pH of the discharge shall remain between 6 and 9 standard units.

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 002.

Numeric Effluent Limitations Outfall 006 ⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit ⁽²⁾
Oil and Grease	mg/L	10	NA
Arsenic, Total Recoverable	mg/L	0.010	0.005
Total Residual Chlorine ^(3,4)	mg/L	0.019	0.011
NA Not Applicable (1) See the definitions in Part V. of the permit for explanation of terms. (2) Calculations are based on the average of the daily loads for the reporting period. (3) Limit applies when hydrostatic test wastewater is routed through wastewater treatment system (4) Analyses less than the RRV shall be considered in compliance with these effluent limits			

The pH of the discharge shall remain between 6 and 9 standard units at all times

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon the adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 006.

A discharge from Outfall 006 may only occur if there is no discharge from Outfall 001. Discharges from Outfall 006 and Outfall 001 may not occur simultaneously.

Numeric Effluent Limitations Outfall SUM-A ^(1,2)			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit⁽³⁾
Biochemical Oxygen Demand (BOD ₅)	lbs/day	485	270
Total Suspended Solids (TSS)	lbs/day	338	215
Chemical Oxygen Demand (COD)	lbs/day	2,243	1,253
Total Ammonia, as N	lbs/day	314	143
Oil and Grease	lbs/day	148	78
Phenols	lbs/day	2.26	1.08
Sulfide, as S	lbs/day	3.09	1.38
Total Chromium	lbs/day	4.51	2.07
Hexavalent Chromium	lbs/day	0.39	0.17
NA Not Applicable			
(1) See the definitions in Part V. of the permit for explanation of terms.			
(2) Sum of Outfall 001, Outfall 002, and Outfall 006.			
(3) Calculations are based on the average of the daily loads for the reporting period.			

2. Final Limits

Beginning on **June 1, 2014** and continuing for the term of the permit, the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Numeric Effluent Limitations Outfall 001-A⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit⁽²⁾
Total Ammonia, as N	mg/L	3.96	2.88
Oil and Grease	mg/L	10	NA
Selenium, Total Recoverable	mg/L	0.009	0.006
Total Residual Oxidant as Chlorine ^(3,4)	mg/L	0.019	0.011
NA Not Applicable (1) See the definitions in Part V. of the permit for explanation of terms. (2) Calculations are based on the average of the daily loads for the reporting period. (3) Limit applies when hydrostatic test wastewater is routed through wastewater treatment system (4) Analyses less than the RRV shall be considered in compliance with these effluent limits			

The pH of the discharge shall remain between 6 and 9 standards units at all times.

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 001.

Numeric Effluent Limitations Outfall 002-A⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit
Total Ammonia, as N	mg/L	3.96	2.88
Selenium, Total Recoverable	mg/L	0.009	0.006
Oil and Grease	mg/L	10	NA
Total Residual Oxidant as Chlorine ⁽²⁾	mg/L	0.019	0.011

Numeric Effluent Limitations Outfall 002-A ⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit
NA Not Applicable			
(1) See the definitions in Part V. of the permit for explanation of terms.			
(2) Analyses less than the RRV shall be considered in compliance with these effluent limits			

The pH of the discharge shall remain between 6 and 9 standard units.

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 002.

Numeric Effluent Limitations Outfall 006-A ⁽¹⁾			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit ⁽²⁾
Oil and Grease	mg/L	10	NA
Arsenic, Total Recoverable	mg/L	0.010	0.005
Total Residual Chlorine ^(3,4)	mg/L	0.019	0.011
NA Not Applicable			
(1) See the definitions in Part V. of the permit for explanation of terms.			
(2) Calculations are based on the average of the daily loads for the reporting period.			
(3) Limit applies when hydrostatic test wastewater is routed through wastewater treatment system.			
(4) Analyses less than the RRV shall be considered in compliance with these effluent limits.			

The pH of the discharge shall remain between 6 and 9 standard units at all times

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

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon the adjoining shorelines.

There shall be no acute toxicity in the effluent discharged at Outfall 006.

A discharge from Outfall 006 may only occur if there is no discharge from Outfall 001. Discharges from Outfall 006 and Outfall 001 may not occur simultaneously.

Numeric Effluent Limitations Outfall SUM-A ^(1,2)			
Parameter	Units	Daily Maximum Limit	30-Day Average Limit⁽³⁾
Biochemical Oxygen Demand (BOD ₅)	lbs/day	485	270
Total Suspended Solids (TSS)	lbs/day	338	215
Chemical Oxygen Demand (COD)	lbs/day	2,243	1,253
Total Ammonia, as N	lbs/day	314	143
Oil and Grease	lbs/day	148	78
Phenols	lbs/day	2.26	1.08
Sulfide, as S	lbs/day	3.09	1.38
Total Chromium	lbs/day	4.51	2.07
Hexavalent Chromium	lbs/day	0.39	0.17
NA Not Applicable			
(1) See the definitions in Part V. of the permit for explanation of terms.			
(2) Sum of Outfall 001, Outfall 002, and Outfall 006.			
(3) Calculations are based on the average of the daily loads for the reporting period.			

3. Storm Water Discharges

Effective , storm water discharged via Outfall 003, Outfall 004, and Outfall 005, shall meet the effluent limitations as set forth below.

Numeric Effluent Limitations: Outfall 003, 004, 005			
Parameter	Units	Average Monthly Limit¹	Maximum Daily Limit¹
Total Organic Carbon (TOC)	mg/L	--	110
Oil and Grease ²	mg/L	--	10
Hydrogen Sulfide ⁽³⁾	mg/L	0.002	0.003
Footnotes:			
1. See Definition section at end of permit for explanation of terms.			
2. EPA method 1664, revision A			
3. Analyses of dissolved sulfide less than the RRV for dissolved sulfide shall be considered in compliance with the hydrogen sulfide limit.			

There shall be no discharge which causes visible oil sheen in the receiving stream.

C. Monitoring Requirements

As a minimum, upon the effective date of this permit, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form (EPA No. 3320-1) that no discharge or overflow occurred.

1. Effluent Monitoring – Outfall 001, Outfall 002, and Outfall 006

Outfall 001-A Monitoring Requirements					
Parameter	Units	Sample Location	Sample Frequency ⁽¹⁾	Sample Type ⁽²⁾	RRV ⁽³⁾
Effluent Flow Rate	mgd	Effluent	Continuous	Recorder	NA
pH	s.u.	Effluent	Daily	Instantaneous	0.1
Total Suspended Solids	mg/L	Effluent	3/Week	Grab	10
	lb/day	Effluent	3/Week	Calculated	NA
Total Ammonia, as N	mg/L	Effluent	3/Week	Grab	0.1
	lb/day	Effluent	3/Week	Calculated	
Biochemical Oxygen Demand	mg/L	Effluent	3/Week	Grab	5.0
	lb/day	Effluent	3/Week	Calculated	NA
Chemical Oxygen Demand	mg/L	Effluent	3/Week	Grab	10.0
	lb/day	Effluent	3/Week	Calculated	NA
Phenols, Total	mg/L	Effluent	Weekly	Grab	0.1
	lb/day	Effluent	Weekly	Calculated	NA
Sulfide, as S	mg/L	Effluent	Weekly	Grab	1.0
	lb/day	Effluent	Weekly	Calculated	NA
Oil and Grease, Total Recoverable	mg/L	Effluent	Weekly	Grab	5
	lb/day	Effluent	Weekly	Calculated	NA
Oil and Grease, Visual ⁽⁴⁾	Presence	Effluent	Daily	Visual	NA
Chromium, Total Recoverable	mg/L	Effluent	Weekly	Grab	0.01
	lb/day	Effluent	Weekly	Calculated	NA
Hexavalent Chromium	mg/L	Effluent	Weekly	Grab	0.002
	lb/day	Effluent	Weekly	Calculated	NA
Selenium, Total Recoverable	mg/L	Effluent	Weekly	Grab	0.001
Total Residual Chlorine	mg/L	Effluent	Monthly	Grab	0.1
Toxicity, acute ⁽⁵⁾	% effluent	Effluent	Quarterly	Grab	NA

Footnotes:
(1) Refers to the frequency of observation or measurement.
(2) See the definitions in Part V. of the permit.
(3) Required Reporting Value (RRV)
(4) Report Presence/Absence. If oil sheen is observed a grab sample of the effluent must be collected and analyzed for Oil and Grease on a daily basis while the sheen is present.
(5) Acute test shall utilize *Pimephales promelas* (EPA Method 2001.0) and *Ceriodaphnia dubia* (EPA Method 2012.0), two species quarterly.

Samples taken in compliance with all monitoring requirements specified above shall be taken at the discharge point (001), prior to the effluent mixing with the receiving water.

Outfall 002-A Monitoring Requirements					
Parameter	Units	Sample Location	Sample Frequency ⁽¹⁾	Sample Type ⁽²⁾	RRV ⁽³⁾
Effluent Flow Rate	mgd	Effluent	Daily	Calculated ⁽⁵⁾	NA
pH	s.u.	Effluent	3/Event ⁽⁴⁾	Instantaneous	0.1
Total Suspended Solids	mg/L	Effluent	3/Event ⁽⁴⁾	Grab	10
	lb/day	Effluent	3/Event ⁽⁴⁾	Calculated	NA
Total Ammonia, as N	mg/L	Effluent	3/Event ⁽⁴⁾	Grab	0.1
	lb/day	Effluent	3/Event ⁽⁴⁾	Calculated	
Biochemical Oxygen Demand	mg/L	Effluent	3/Event ⁽⁴⁾	Grab	5.0
	lb/day	Effluent	3/Event ⁽⁴⁾	Calculated	NA
Chemical Oxygen Demand	mg/L	Effluent	3/Event ⁽⁴⁾	Grab	10.0
	lb/day	Effluent	3/Event ⁽⁴⁾	Calculated	NA
Phenols, Total	mg/L	Effluent	1/Event	Grab	0.1
	lb/day	Effluent	1/Event	Calculated	NA
Sulfide, as S	mg/L	Effluent	1/Event	Grab	1.0
	lb/day	Effluent	1/Event	Calculated	NA
Oil and Grease, Total Recoverable	mg/L	Effluent	3/Event ⁽⁴⁾	Grab	5
	lb/day	Effluent	3/Event ⁽⁴⁾	Calculated	NA
Oil and Grease, Visual ⁽⁶⁾	Presence	Effluent	Daily	Visual	NA
Chromium, Total Recoverable	mg/L	Effluent	1/Event	Grab	0.01
	lb/day	Effluent	1/Event	Calculated	NA
Hexavalent Chromium	mg/L	Effluent	1/Event	Grab	0.002
	lb/day	Effluent	1/Event	Calculated	NA
Selenium, Total Recoverable	mg/L	Effluent	1/Event	Grab	0.001
Total Residual Chlorine	mg/L	Effluent	1/Event	Grab	0.1
Toxicity, acute ⁽⁷⁾	% effluent	Effluent	Quarterly	Grab	NA

Footnotes:
(1) Refers to the frequency of observation or measurement.
(2) See the definitions in Part V. of the permit.
(3) Required Reporting Value
(4) Samples must be collected within 30 minutes of initial discharge, halfway through the discharge, and within 30 minutes of cessation of discharge.
(5) Flow rate must be calculated daily
(6) Report Presence/Absence. If oil sheen is observed a grab sample of the effluent must be collected and analyzed for Oil and Grease on a daily basis while the sheen is present.
(7) Acute test shall utilize *Pimephales promelas* (EPA Method 2001.0) and *Ceriodaphnia dubia* (EPA Method 2012.0), two species quarterly.

Samples taken in compliance with all monitoring requirements specified above shall be taken at the discharge point, prior to the effluent mixing with the receiving water.

Outfall 006 Monitoring Requirements					
Parameter	Unit	Sample Location	Sample Frequency ⁽¹⁾	Sample Type ⁽²⁾	RRV ⁽³⁾
Effluent Flow Rate	mgd	Effluent	Continuous	Recorder	NA
pH	s.u.	Effluent	Daily	Instantaneous	0.1
Total Suspended Solids	mg/L	Effluent	3/Week	Grab	10
	lb/day	Effluent	3/Week	Calculated	NA
Biochemical Oxygen Demand, BOD ₅	mg/L	Effluent	3/Week	Grab	5.0
	lb/day	Effluent	3/Week	Calculated	NA
Chemical Oxygen Demand	mg/L	Effluent	3/Week	Grab	10.0
	lb/day	Effluent	3/Week	Calculated	NA
Ammonia, Total as N	mg/L	Effluent	3/Week	Grab	0.1
	lb/day	Effluent	3/Week	Calculated	NA
Phenols, Total	mg/L	Effluent	Weekly	Grab	0.01
	lb/day	Effluent	Weekly	Calculated	NA
Sulfide, as S	mg/L	Effluent	Weekly	Grab	1.0
	lb/day	Effluent	Weekly	Calculated	NA
Oil and Grease, Total Recoverable	mg/L	Effluent	Weekly	Grab	5
	lb/day	Effluent	Weekly	Calculated	NA
Oil and Grease, visual ⁽⁴⁾	Presence	Effluent	Daily	Visual	NA
Chromium, Total Recoverable	mg/L	Effluent	Weekly	Grab	0.01
	lb/day	Effluent	Weekly	Calculated	NA
Chromium, Hexavalent	mg/L	Effluent	Weekly	Grab	0.002
	lb/day	Effluent	Weekly	Calculated	NA
Arsenic, Total Recoverable	mg/L	Effluent	Weekly	Grab	0.001
Selenium, Total Recoverable	mg/L	Effluent	Weekly	Grab	0.001
Total Residual Chlorine ⁽⁵⁾	mg/L	Effluent	Monthly	Grab	0.1
Whole Effluent Toxicity ⁽⁶⁾	% effluent	Effluent	Quarterly	Grab	NA

Footnotes:
1. Refers to frequency of observation or measurement.
2. See Definition section at end of permit for explanation of terms.
3. Required Reporting Value
4. Report Presence/Absence. If oil sheen is observed a grab sample of the effluent must be collected and analyzed for Oil and Grease on a daily basis while the sheen is present.
5. Chlorine monitoring is required when hydrostatic test water is routed through the wastewater treatment system.
6. Acute test shall utilize *Pimephales promelas* (EPA Method 2001.0) and *Ceriodaphnia dubia* (EPA Method 2012.0), two species quarterly.

Outfall 006 Monitoring Requirements (cont.)					
Parameter	Unit	Sample Location	Sample Frequency	Sample Type ¹	RRV ²
Nitrate plus Nitrite, as N	mg/L	Effluent	Monthly	Grab	0.02
Aluminum, Dissolved	µg/L	Effluent	Monthly	Grab	9
Copper, Total Recoverable	µg/L	Effluent	Monthly	Grab	2
Iron, Total Recoverable	µg/L	Effluent	Monthly	Grab	20
Mercury, Total Recoverable	µg/L	Effluent	Monthly	Grab	0.005
Nickel, Total Recoverable	µg/L	Effluent	Monthly	Grab	2
Thallium, Total Recoverable	µg/L	Effluent	Monthly	Grab	0.2
Zinc, Total Recoverable	µg/L	Effluent	Monthly	Grab	8

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Required Reporting Value

Samples taken in compliance with all monitoring requirements specified above shall be taken at a sampling port or other permanent, constructed sampling location in the effluent pipe, downstream of all treatment processes and prior to the effluent mixing with the receiving water.

2. Storm Water Discharge Monitoring – Outfalls 003, 004, 005.

Outfall 003, 004 and 005 Monitoring Requirements					
Parameter	Unit	Sample Location	Sample Frequency	Sample Type ¹	RRV ²
Flow	gpm	Effluent	1/Week	Estimated	---
Total Organic Carbon	mg/L	Effluent	1/Week	Grab	---
Oil and Grease ³	mg/L	Effluent	1/Week	Grab	5
Oil and Grease, visual sheen	Presence	Effluent	1/Week	Visual	--
Biochemical Oxygen Demand, BOD ₅	mg/L	Effluent	1/Week	Grab	--
Chemical Oxygen Demand	mg/L	Effluent	1/Week	Grab	--
Total Suspended Solids	mg/L	Effluent	1/Week	Grab	
Ammonia, total as N	mg/L	Effluent	1/Week	Grab	0.1
Nitrate + Nitrite	mg/L	Effluent	1/Week	Grab	0.02
Nitrogen, total	mg/L	Effluent	1/Week	Grab	--
Phosphorus, total	mg/L	Effluent	1/Week	Grab	--
Sulfide, dissolved ⁴	mg/L	Effluent	1/Week	Grab	0.04
Hydrogen Sulfide ⁵	mg/L	Effluent	1/Week	Calculated	--
pH	S.U.	Effluent	1/Week	Grab	--
Arsenic	µg/L	Effluent	1/Week	Grab	1
Chromium, total recoverable	µg/L	Effluent	1/Week	Grab	10
Chromium, hexavalent	µg/L	Effluent	1/Week	Grab	2
Selenium, total recoverable	µg/L	Effluent	1/Week	Grab	1

Footnotes:
1. See Definition section at end of permit for explanation of terms. See monitoring requirements narrative for additional options.
2. The Required Reporting Value (RRV) is the detection level that must be achieved in reporting surface water or ground water monitoring or compliance data to the Department.
3. EPA method 1664 revision A. Hexane extraction.
4. Use method 4500 S²⁻-series, as specified in 40 CFR 136.
5. Method 4500 S²⁻-H. *Standard Methods for the Examination of Water and Wastewater, 21st Edition, 2005.*

Outfall 003, 004 and 005 Monitoring Requirements (cont.)					
Parameter	Unit	Sample Location	Sample Frequency	Sample Type ¹	RRV ²
Copper, total recoverable	µg/L	Effluent	Annually	Grab	1
Lead, total recoverable	µg/L	Effluent	Annually	Grab	0.5
Mercury, total recoverable	µg/L	Effluent	Annually	Grab	0.01
Manganese, total recoverable	µg/L	Effluent	Annually	Grab	5
Nickel, total recoverable	µg/L	Effluent	Annually	Grab	10
Total Phenols	µg/L	Effluent	Annually	Grab	10
Anthracene	µg/L	Effluent	Annually	Grab	0.2
Benzene	ug/L	Effluent	Annually	Grab	0.5
Toluene	µg/L	Effluent	Annually	Grab	0.5
Benzo(ghi)perylene	µg/L	Effluent	Annually	Grab	10
Ethylbenzene	µg/L	Effluent	Annually	Grab	0.5
Napthalene	µg/L	Effluent	Annually	Grab	10
Phenanthrene	µg/L	Effluent	Annually	Grab	0.25
Xylene	µg/L	Effluent	Annually	Grab	1.5
Styrene	µg/L	Effluent	Annually	Grab	0.5
Tetrachlorethylene	µg/L	Effluent	Annually	Grab	0.5
Whole Effluent Toxicity, acute ³	% Effluent	Effluent	Annually	Grab	--

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. The Required Reporting Value (RRV) is the detection level that must be achieved in reporting surface water or ground water monitoring or compliance data to the Department.
3. WET monitoring is required at Outfall 004 only. If there is no discharge from Outfall 004 for the entire calendar year, the annual WET sample may be collected from either Outfall 003 or Outfall 005.

Samples taken in compliance with all monitoring requirements specified above shall be taken at the discharge point, or from a sampling port in the discharge pipe, prior to the effluent mixing with the receiving water.

Instream Monitoring Requirements, Yellowstone River, upstream of Yegen Drain					
Parameter	Unit	Sample Location	Sample Frequency	Sample Type ¹	RRV ²
Mercury, Total Recoverable	µg/L	Effluent	Monthly	Grab	0.005
Thallium, Total Recoverable	µg/L	Effluent	Monthly	Grab	0.2

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Required Reporting Value

Instream monitoring samples must be collected from the Yellowstone River, upstream of the Yegen Drain. The same sample location must be used for each sampling event. Monthly instream monitoring is to begin the month that discharge via Outfall 006 commences and continue for two years.

3. Whole Effluent Toxicity Monitoring – Acute Toxicity

Starting in the first calendar quarter following the effective date of the permit, the permittee shall, at least once each quarter conduct acute static replacement toxicity tests on a grab sample of the effluent discharged from Outfall 001, Outfall 006, and Outfall 002 when discharging. WET testing for storm water discharges shall follow the annual schedule described in the table above. Testing will employ two species per quarter (annually for storm water) and will consist of 5 effluent concentrations (100, 50, 25, 12.5, 6.25 percent effluent) and a control. Dilution water and the control shall consist of the receiving water (moderately hard reconstituted water may be used, in accordance with the WET methods). Except for storm water discharges, samples shall be collected on a two day progression; i.e., if the first quarterly sample is on a Monday, the second quarter sample shall be on a Wednesday, etc. Saturdays, Sundays and Holidays will be skipped in the progression.

The static toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of *Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms*, EPA-821-R-02-012 and the “*Region VIII EPA NPDES Acute Test Conditions-Static Renewal Whole Effluent Toxicity*”. The permittee shall conduct an acute 48-hour static renewal toxicity test using one crustacean (*Ceriodaphnia sp.*) and an acute 96-hour static renewal toxicity test using fathead minnows (*Pimephales promelas*) as the alternating species. The control of pH in the toxicity test utilizing CO2 enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection.

Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. If more than 10 percent control mortality

occurs, the test is considered invalid and shall be repeated until satisfactory control survival is achieved, unless a specific individual exception is granted by the Department. This exception may be granted if less than 10 percent mortality was observed at the dilutions containing high effluent concentrations.

If acute toxicity occurs in a routine test, an additional test shall be conducted within 14 days of the date of the initial sample. Should acute toxicity occur in the second test (resample), testing shall occur once a month (or once per discharge event for storm water) until further notified by the Department. In all cases, the results of all toxicity tests must be submitted to the Department in accordance with Part II of this permit.

The quarterly results from the laboratory shall be reported along with the Discharge Monitoring Report (DMR) form submitted for the end of the reporting period (e.g., whole effluent results for the reporting quarter ending March 31 shall be reported with the March DMR due April 28th with the remaining quarterly, and/or annual, reports submitted with the June, September, and December DMR's). The format for the laboratory report shall be consistent with the latest revision of Region VIII Guidance for Acute Whole Effluent Reporting, and shall include all chemical and physical data as specified.

If the results for four consecutive quarters of testing indicate no acute toxicity, the permittee may request a reduction to quarterly acute toxicity testing on only one species on an alternating basis. The Department may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

D. Special Conditions

1 Toxicity Reduction Evaluation / Toxicity Identification Evaluation:

Should acute toxicity be detected in the required resample, a TIE-TRE shall be undertaken by the permittee to establish the cause of the toxicity, locate the source(s) of the toxicity, and develop control or treatment for the toxicity. Failure to initiate or conduct an adequate TIE-TRE, or delays in the conduct of such tests, shall not be considered a justification for noncompliance with the whole effluent toxicity limits contained in Part I.B of this permit. A TRE plan must be submitted to the Department within 45 days after confirmation of the continuance of effluent toxicity (resample).

2. Water Quality-based Effluent Limits Compliance Schedule:

The following compliance schedule milestone items must be submitted to the Department no later than the dates specified.

Milestone	Dates
Compliance plan to reduce concentrations of selenium and total ammonia in the discharge. This plan must evaluate options to achieve compliance with final effluent limitations for these pollutants	March 28, 2012
Annual reports to describe the progress of studies and/or actions undertaken to reduce concentrations of selenium and total ammonia in the effluent and to achieve compliance with final effluent limitations in the Permit	Every year thereafter until full compliance with final effluent limitations is achieved. Annual reports due by March 28 th of each year.
Full compliance with final effluent limitations for selenium and total ammonia.	June 1, 2014

3. Storm Water Discharges

In the following section the term “storm water discharges” applies to the discharge of storm water, via pumping or in response to precipitation, from Phillips 66 Refinery property. Storm water from the facility process areas is routed through the wastewater treatment system and discharged via Outfall 001 and/or Outfall 006. Effluent limits at Outfalls 001 and 006 apply to storm water routed to the wastewater treatment system.

Non-process area storm water discharges are covered under this section of the permit. For these storm water discharges to have permit coverage, a Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented. The purpose of the SWPPP is to identify sources of pollution to storm water and to select Best Management Practices (BMPs) to eliminate or minimize pollutant discharges at the source and/or to remove pollutants contained in storm water runoff. The facility must implement the provisions of the SWPPP required under this part as a condition of this permit.

The SWPPP must comply with the following requirements:

1. General SWPPP Requirements

- a. The SWPPP and associated documentation, as well as BMPs developed and implemented, must be accomplished using good standard engineering practices.
- b. The SWPPP must be retained onsite at the facility that generates the storm water discharge. Provided no permanent offices/buildings are located at the facility site, a copy of these documents shall be retained at the office of the contact person identified in the permit application and at the office of the primary individual responsible for the implementation of the SWPPP, and shall be brought to the site at all times with these identified personnel. Should the identity of these responsible contacts/individuals change during the permit period, the permittee shall ensure measures are in place to transfer, and familiarize replacement personnel with the requirements pertaining to the SWPPP.

- c. The SWPPP must be signed in accordance with the signatory requirements stated in Part IV.G of this permit.
- d. The SWPPP must be made available upon request of Department staff, such as during inspections.
- e. The Department may notify the permittee that the SWPPP does not meet one or more of the minimum requirements of this permit. After such notification from the Department, the permittee shall make changes to the SWPPP and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise stated by the Department, the permittee shall have 30 days after such notification to make the required changes. When the Department makes such notification, the permittee shall provide the Department with a copy of revisions to the SWPPP.
- f. The permittee shall amend the SWPPP whenever there is a change in design, construction, operation, or maintenance that has significant effect on the potential for the discharge of pollutants to surface waters, or if the SWPPP proves to be ineffective in achieving the general objective of controlling pollutants in a storm water discharge covered under this permit. When such revisions are made to the SWPPP based upon this permit condition, the permittee shall provide the Department with a copy of revisions to the SWPPP.
- g. The SWPPP must identify the name of receiving surface waters. If there is a distinguishable point source discharge or outfall, the SWPPP must include a description of the size, type, and location of each point source discharge or outfall. A description of storm water runoff flow and drainage patterns into the receiving surface waters must be provided. If the discharge is to a municipal separate storm sewer, the location of any storm sewer discharge into the receiving surface waters must be provided.
- h. The SWPPP must identify a specific person or persons at the facility who are responsible for SWPPP development, implementation, maintenance, and revision. The SWPPP must clearly identify the responsibilities of each person. The activities and responsibilities of the person(s) must address all aspects of the SWPPP.
- i. The SWPPP must identify facility personnel training programs used to inform personnel responsible for implementing activities identified in the SWPPP or otherwise responsible for storm water management of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping, and material management practices. A schedule must identify the frequency for such training.
- j. The SWPPP must address preventative maintenance measures which include the inspection and maintenance of storm water management BMPs. Qualified personnel shall be identified in the SWPPP to inspect the facility site and storm

water management BMPs following each significant storm water rainfall event resulting in 0.5 inches of precipitation or more, or after significant snowmelt events. Inspections must be documented and maintained with the SWPPP. Inspections and their respective records must include tracking or follow-up procedures to ensure adequate response and corrective actions have been taken based on any problems or deficiencies observed during the inspection.

- k. The SWPPP must address good housekeeping measures to help maintain a clean, orderly, facility. Measures could include a routine schedule for the managing/removal of waste materials, as well as routine inspections of potential problem areas.
- l. The SWPPP must include a General Location Map (such as a USGS topographic quadrangle map), extending one mile beyond the property boundaries of the facility, with enough detail to identify the location of the facility, any storm water discharges, and the receiving surface waters. The facility site must be clearly delineated on this map. The permittee may use the topographic map submitted with the application provided it indicates this information with respect to storm water discharges.

2. Identification of Potential Pollutant Sources

The SWPPP must provide a description of potential pollutant sources which may reasonably be expected to affect the quality of storm water discharges. The SWPPP must identify all significant activities and materials that could potentially be significant pollutant sources. To accomplish this, the SWPPP must include, at a minimum:

- a. For each area of the facility with storm water discharges from regulated activities that have a reasonable potential to contain significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants and parameters of concern that are likely to affect the storm water discharge. Factors to consider include the toxicity of chemicals; quantity of chemical used, produced or discharged; the likelihood of contact with storm water; the history of any MPDES permit violations; and the characteristics and uses of the receiving surface waters. In the identification of potential pollutants, and depending on the type of facility, items to identify and assess may include:
 - i. Areas and management practices used for the storage, treatment, or disposal of wastes;
 - ii. Areas where significant spills and leaks of hazardous substances may have occurred;
 - iii. Areas and management practices used for the loading or unloading of dry bulk materials and liquids;
 - iv. Areas and management practices used for the outdoor storage of materials and/or products;

- v. Areas and management practices used for outdoor manufacturing or processing activities;
- vi. Areas and management practices used for vehicle fueling, washing, and maintenance;
- vii. Dust or particulate-generating processes;
- viii. Illicit connections and/or management practices;
- ix. Areas more susceptible to erosion; and,
- x. Areas with unstabilized sediment due to ground disturbance activities.

The permittee must evaluate these potential pollutant sources back at least three years prior to the date permit coverage is applied for the respective storm water discharge.

- b. A summary of existing storm water quality sampling test results which characterize historical pollutants in storm water discharges.
- c. Estimate and define area(s) of relatively impervious surfaces (including paved areas and facility structural roofs) with respect to the total area drained by each point source discharge of storm water.
- d. An evaluation of how the quality of any potential storm water running onto the facility site would impact the facility's storm water discharge.

3. Storm Water Management Best Management Practices

- a. SWPPPs must include a description of storm water management Best Management Practices (BMPs) appropriate for the facility, including those used to divert, infiltrate, reuse, or otherwise manage storm water runoff, that reduces pollutants in storm water discharges from the site. The appropriateness and priorities of BMPs in a SWPPP shall reflect the identified potential sources of pollutants to storm water at the facility in Part C.2.
- b. Reasonable and appropriate BMPs may include: reuse of collected storm water (such as for process water or as an irrigation source); inlet controls (such as oil/water separators); snow management activities; infiltration devices, detention/retention devices (including constructed wetlands); run-on/runoff controls; diversion structures; flow attenuation by use of open vegetated swales, natural depressions, and other practices; and, ponds. Where practicable, industrial materials and activities could be protected by a storm resistant shelter to prevent exposure to rain or snow.
- c. The location and description of any treatment to remove pollutants that storm water receives.
- d. The SWPPP must provide a description of measures to ensure the ongoing implementation and maintenance of BMPs. Inspections and maintenance

activities, such as cleaning oil and grit separators or catch basins, must be documented and recorded. Incidents such as spills, leaks, other releases of potential pollutants, and/or other material/waste management problems, must also be documented and recorded.

e. The SWPPP must address Spill Prevention and Response Measures as follows:

- i. Areas where potential spills may occur that could contribute pollutants to storm water discharges, and their accompanying drainage points, must be identified clearly in the SWPPP.
- ii. Where appropriate, specific material-handling procedures, storage requirements, and use of equipment, such as diversion valves, should be considered in the SWPPP.
- iii. Procedures and necessary equipment for cleaning up spills must be identified in the SWPPP and made available to the appropriate personnel.
- iv. Emergency spill/response contact and/or notification numbers must be listed in the SWPPP.
- v. SWPPP records of spills must be updated when a significant spill or leak of hazardous substances occurs and must include a description of the specific origin and location of the release, a description of the materials released, an estimate of the quantity of the release, and a description of any remediation or cleanup measures which were taken.

f. The SWPPP must address Sediment and Erosion Control BMPs as follows:

- i. The SWPPP must describe sediment and erosion control BMPs including various structural, vegetative, and/or stabilization measures.
- ii. The SWPPP must allow for BMPs to be implemented as necessary.
- iii. The SWPPP must address areas which have a higher potential for erosion due to topography, slope characteristics, facility activities, and/or other factors.
- iv. An assessment of the nature of any fill material to be used, the existing soils located at the site, and the erodibility (high, moderate, or slight) of such soils must be provided in the SWPPP.
- v. Storm water discharges associated with construction activity at the facility site may be included under this permit provided the SWPPP is developed or revised to address these discharges as follows:
 - The SWPPP must identify and locate the BMPs to be used during and after the construction project to control sediment discharges to surface waters;
 - Final stabilization of disturbed areas must be ensured;
 - This Sediment and Erosion Control section of the SWPPP must be updated with a SWPPP modification to reflect new construction activity as necessary; and,
 - The SWPPP modification must be submitted to the Department prior to the start of construction.

Provided these items are addressed, coverage for storm water discharges associated with construction activity under this permit would commence on the date stated in the SWPPP or when construction starts.

- vi. The SWPPP may include the use of BMPs such as sediment basins, detention/retention structures, berms, barriers, filter strips, covers, diversion structures, sediment control fences, straw bale dikes, seeding, sodding, and/or other control structures. Any SWPPP elements that require engineered structures, such as detention ponds or diversion structures, must be prepared by a qualified individual using good standard engineering practices.

4. SWPPP Site Map or Plan

The SWPPP must include a site map or plan which indicates the following:

- a. An identification of each point source discharge of storm water with a delineated outline of the respective drainage area;
- b. Each required point source discharge of storm water sampling location (with the formal number indicated on the map as designated on Discharge Monitoring Report forms. ;
- c. Delineated drainage patterns which clearly indicate the storm water runoff flow patterns (such as using arrows or detailed topographic contours to show which direction storm water will flow);
- d. The "areas" identified in Part C.2.a. and c.;
- e. The "BMPs" identified in Part C.3.;
- f. Major permanent facility structures;
- g. Each well where liquids associated with the facility are injected underground including any storm water conveyances;
- h. Location and source of runoff from adjacent property containing significant quantities of pollutants of concern to the facility as discussed in Part C.2.d.;
- i. Location of all surface waters on or near to the construction activity site (including perennial and intermittent waterbodies, ephemeral streams, springs, wetlands with standing water, etc.);
- j. A map scale;
- k. A north arrow; and,

- I. For construction activities:
 - i. Areas of total development and, at a minimum, areas of "disturbance" related to construction activity (including support activities related to a construction site such as concrete or asphalt batch plants, equipment staging areas, material storage areas, soil stockpile areas, material borrow areas, etc.);
 - ii. Location of all erosion and sediment control BMPs;
 - iii. Location of impervious structures (including buildings, roads, parking lots, outdoor storage areas, etc.) after construction is completed;
 - iv. Areas where vegetative BMPs are to be implemented;
 - v. Approximate slopes anticipated after major grading activities; and,
 - vi. The boundary of the 100-year floodplain, if determined.

5. Comprehensive Site Inspection and Compliance Evaluation Report

- a. For storm water discharges that are associated with industrial, mining, oil and gas, and construction activity with construction-related disturbance of five acres or more of total land area, a Comprehensive Site Inspection must be performed annually to identify areas contributing to the regulated storm water discharge and to evaluate whether BMPs to reduce pollutant loadings identified in the SWPPP are adequate and properly implemented in accordance with the terms of this permit. For inactive mining operations, if annual inspections are impracticable, then a certification once every three years by a registered professional engineer that the facility is in compliance with the permit, or alternative requirements, can be performed instead of an annual Comprehensive Site Inspection.
- b. A Comprehensive Site Inspection must assess the following:
 - i. Whether the description of potential pollutant sources is accurate as required under Part C.2. of this permit;
 - ii. Whether the site map has been updated or otherwise modified to reflect current conditions;
 - iii. Whether the BMPs to control potential pollutants in storm water discharges as identified in the SWPPP and Part C.3. are being effectively implemented; and,
 - iv. Whether any SWPPP revisions such as additional BMPs are necessary.
- c. Based on the results of the Comprehensive Site Inspection, the description of potential pollutant sources and BMPs identified in the SWPPP must be revised as appropriate within 14 days of such inspection and must provide for implementation of the changes to the SWPPP in a timely manner.
- d. A tracking or follow-up procedure, including a schedule for implementation, must be used and identified in the Report which ensures adequate response and

corrective actions have been taken in response to the Comprehensive Site Inspection and/or noncompliances.

- e. Records of the Comprehensive Site Inspection, the Compliance Evaluation Report, and any related follow-up actions must be maintained by the permittee.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit 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 Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

C. Penalties for Tampering

The Montana Water Quality 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, or by imprisonment for not more than six months, or by both.

D. Reporting of Monitoring Results

Self-Monitoring results will be reported monthly. Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. Whole effluent toxicity (biomonitoring) results must be reported on forms from the most recent version of EPA Region VIII's "Guidance for Whole Effluent Reporting" with copies of the laboratory analysis report. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (see Part IV.G of this permit), and submitted to the Department and the Regional Administrator at the following addresses:

(a) Montana Department of
Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080

(b) U.S. Environmental Protection
Agency
10 West 15th Street, Suite 3200
Helena, Montana 59626
Phone: (406) 457-5000

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 pollutant more frequently than required by this permit, using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

G. Records Contents

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

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 Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES 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 report any serious incidents of noncompliance as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 841-3911. The following examples are considered serious incidents:

- a. Any noncompliance which may seriously endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities"); or
 - c. Any upset which exceeds any effluent limitation in the permit (see Part III.H of this permit, "Upset Conditions").
2. 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.
 3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080.
 4. Reports shall be submitted to the addresses in Part II.D of this permit, "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 of this permit are submitted. The reports shall contain the information listed in Part II.I.2 of this permit.

K. Inspection and Entry

The permittee shall allow the head of the Department or the Director, or an authorized representative thereof, 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 this 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, 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 the Department or the Regional Administrator advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties 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 of not more than \$50,000 per day of violation, or by imprisonment for not more than 2 years, or both, for subsequent convictions. MCA 75-5-611(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "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 appropriate 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. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard.

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 the provisions of Parts III.G.2 and III.G.3 of this permit.

2. Notice:

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I of this permit, "Twenty-four Hour Reporting".

3. Prohibition of bypass:

a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:

1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) There were no feasible alternatives to the 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 back-up 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 Part III.G.2 of this permit.

b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a of this permit.

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 Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e. Permittees will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limitations).
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 of this permit, "Twenty-four Hour Notice of Noncompliance Reporting"; and
 - d. The permittee complied with any remedial measures required under Part III.D of this permit, "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 Clean Water Act 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 Department 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 µg/L);

- b. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/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 40 CFR 122.21(g)(7); or
 - d. The level established by the Department in accordance with 40 CFR 122.44(f).
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 µg/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 40 CFR 122.21(g)(7); or
 - d. The level established by the Department in accordance with 40 CFR 122.44(f).

IV. GENERAL REQUIREMENTS

A. Planned Changes

The permittee shall give notice to the Department 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 pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.

B. Anticipated Noncompliance

The permittee shall give advance notice to the Department 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 must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for revoking, modifying and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, 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 Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

G. Signatory Requirements

All applications, reports or information submitted to the Department or the EPA shall be signed and certified.

1. All permit applications shall be signed as follows:

- a. For a corporation: by a responsible corporate officer; a responsible corporate officer means: a president , secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation ; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
- a. The authorization is made in writing by a person described above and submitted to the Department; and
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)
3. Changes to authorization. If an authorization under Part IV.G.2 of this permit 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 Part IV.G.2 of this permit must be submitted to the Department 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 Montana Water Quality 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 \$25,000 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 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water 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 institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property or Water Rights

The issuance of this permit does not convey any property or water 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 provision 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 Department at least 30 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;

3. The Department does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2 of this permit; and
4. Required annual and application fees have been paid.

N. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:

1. Impose an additional assessment consisting of 15% of the fee plus interest on the required fee computed at the rate established under 15-31-510(3), MCA, or
2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. **Water Quality Standards:** The water quality standards of 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. **Water Quality Standards are Exceeded:** If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the department may modify the effluent limits or water management plan.
3. **TMDL or Wasteload Allocation:** TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.
4. **Water Quality Management Plan:** A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

5. Toxic Pollutants: A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.
6. Toxicity Limitation: Change in the whole effluent protocol, or any other conditions related to the control of toxicants have taken place, or if one or more of the following events have occurred:
 - a. Toxicity was detected late in the life of the permit near or past the deadline for compliance.
 - b. The TRE/TIE results indicated that compliance with the toxic limits will require an implementation schedule past the date for compliance.
 - c. The TRE/TIE results indicated that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits.
 - d. Following the implementation of numerical controls on toxicants, a modified whole effluent protocol is needed to compensate for those toxicants that are controlled numerically.
 - e. The TRE/TIE revealed other unique conditions or characteristics which, in the opinion of the Department, justify the incorporation of unanticipated special conditions in the permit.

V. DEFINITIONS

1. **“Act”** means the Montana Water Quality Act, Title 75, chapter 5, MCA.
2. **“Administrator”** means the administrator of the United States Environmental Protection Agency.
3. **“Acute Toxicity”** occurs when 50 percent or more mortality is observed for either species (See Part I.C of this permit) at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.
4. **“Arithmetic Mean” or “Arithmetic Average”** for any set of related values means the summation of the individual values divided by the number of individual values.
5. **“Average Monthly Limitation”** means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
6. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
7. **“Chronic Toxicity”** means when the survival, growth, or reproduction, as applicable, for either test species, at the effluent dilution(s) designated in this permit (see Part I.C.), is significantly less (at the 95 percent confidence level) than that observed for the control specimens.
8. **“Composite samples”** shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing 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.

9. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
10. **"Daily Maximum Limit"** means the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
11. **"Department"** means the Montana Department of Environmental Quality (MDEQ). Established by 2-15-3501, MCA.
12. **"Director"** means the Director of the Montana Department of Environmental Quality.
13. **“Discharge”** means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
14. **"EPA"** means the United States Environmental Protection Agency.
15. **“Federal Clean Water Act”** means the federal legislation at 33 USC 1251, *et seq.*
16. **"Grab Sample”** means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
17. **“Instantaneous Maximum Limit”** means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
18. **"Instantaneous Measurement”**, for monitoring requirements, means a single reading, observation, or measurement.
19. **“Minimum Level”** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit. (ARM 17.30.702(22))
19. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.

20. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.
21. **"Regional Administrator"** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
22. **"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.
23. **"TIE"** means a toxicity identification evaluation.
24. **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
25. **"TRE"** means a toxicity reduction evaluation.
26. **"TSS"** means the pollutant parameter total suspended solids.
27. **"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.