Major Industrial
Permit No.: MT0000477

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.*,

ExxonMobil Corporation

is authorized to discharge from its **ExxonMobil Billings Refinery**

located at **700 ExxonMobil Road**

to receiving waters named **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.

This permit shall become effective **August 1, 2015**.

This permit and the authorization to discharge shall expire at midnight **July 31, 2020.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Jon Kenning, Chief
Water Protection Bureau
Water Quality Division

Modification Date: August 30, 2019

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I. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zones

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.

Outfall	Description
001	**Location:** At the end of the pipe discharging to the Yellowstone River after the overflow weir at Pond 6 located at approximately 45.820746 and -108.42910. **Mixing Zone:** None **Treatment**: Oil/water separator, neutralization, equalization, induced air flotation, biological oxidation lagoons, and stabilization/polishing ponds.
003	**Location:** At the end of the pipe and diffuser discharging to the Yellowstone River after the overflow weir at Pond 6 located at approximately 45.812987 and -108.439650. **Mixing Zone:** The maximum extent of the chronic mixing zone in the Yellowstone River is as follows: 160 feet downstream for ammonia and hydrogen sulfide. The maximum extent of the acute mixing zone is 25 feet downstream for ammonia and hydrogen sulfide. **Treatment**: Oil/water separator, neutralization, equalization, induced air flotation, biological oxidation lagoons, and stabilization/polishing ponds.
002	**Location:** Near the end of the "clean water ditch" discharging to the Yellowstone River located at approximately 45.819267 and -108.436251. **Mixing Zone:** The segment of the Yellowstone River approximately two (2) miles downstream from the discharge point. **Treatment:** Noncontact cooling water

004

Location: At the end of the diffuser discharging to the Yellowstone River after the overflow weir at Pond 6 located at approximately 45.82081, -108.42916.

Mixing Zone: None

Treatment: Oil/water separator, neutralization, equalization, induced air flotation, biological oxidation lagoons, and stabilization/polishing ponds.

B. Effluent Limitations

1. Interim Effluent Limitations for Outfall 001 and Outfall 003 (Effective Immediately)

Numeric Discharge Limitations: Outfall 001 and Outfall 003 [1]			
Parameter/Code	Units	Average Monthly	Daily Maximum
Biochemical Oxygen Demand (00310)	lb/day	511	919
Net Total Suspended Solids (00530) [2]	lb/day	409	640
Chemical Oxygen Demand (81017)	lb/day	3,558	6,869
Oil and Grease (00552)	lb/day	148	279
Oil and Grease (00552)	mg/L	--	10
Phenolic Compounds (32730)	lb/day	1.97	6.9
Ammonia as N (00610)	lb/day	267	587
Sulfide	lb/day	2.6	5.8
Total Chromium (01118)	lb/day	2.26	6.52
Hexavalent Chromium (01032)	lb/day	0.2	0.43
Acute Whole Effluent Toxicity (WET)	% Effluent	--	> 100%

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. Use intake water TSS at river water pump house and TSS recorded from Outfall 001 or Outfall 003 to determine "Net" TSS.

The pH of the discharge shall remain between 6.0 and 9.0 standard units unless such variation is due to natural biological processes. The pH in pond three shall be monitored daily to verify compliance with the pH effluent limit in the event naturally occurring biological processes are occurring. In the event a natural biological process occurs in pond three, the permittee must comply with Part III.H.2 requirements in this permit.

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

There shall be no discharge that 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 by the facility.

2. Effluent Limitations for Outfall 002
(Effective Immediately)

Numeric Discharge Limitations: Outfall 002 [1]			
Parameter/Code	Units	Average Monthly	Daily Maximum
Net Total Organic Carbon (TOC) (00680) [2]	mg/L	--	5

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. Use intake water TOC at river water pump house or upstream from the intake channel and TOC recorded from Outfall 002 to determine "Net" TOC.

The pH of the discharge shall remain between 6.0 and 9.0 standard units.

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

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

3. Final Effluent Limitations for Outfall 001
(Effective January 1, 2019)

Numeric Discharge Limitations: Outfall 001 [1]			
Parameter/Code	Units	Average Monthly	Daily Maximum
Biochemical Oxygen Demand (00310)	lb/day	511	919
Net Total Suspended Solids (00530) [2]	lb/day	409	640
Chemical Oxygen Demand (81017)	lb/day	3,558	6,869
Oil and Grease (00552)	lb/day	148	279
Oil and Grease (00552)	mg/L	--	10
Phenolic Compounds (32730)	lb/day	1.97	6.9
Ammonia as N (00610)	lb/day	267	587
Ammonia as N (00610)	mg/L	9.6	13.2
Sulfide	lb/day	2.6	5.8
Sulfide as Hydrogen Sulfide [3]	ug/L	3	--
Total Chromium (01118)	lb/day	2.26	6.52
Hexavalent Chromium (01032)	lb/day	0.2	0.43
Acute Whole Effluent Toxicity (WET)	% Effluent	--	> 100%

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. Use intake water TSS at river water pump house and TSS recorded from Outfall 001 or Outfall 003 to determine "Net" TSS.
3. Values that are equal to or less than the sulfide as hydrogen sulfide Required Reporting Value (RRV) of 20 ug/L are considered to be in compliance with this limit.

The pH of the discharge shall remain between 6.0 and 9.0 standard units unless such variation is due to natural biological processes. The pH in pond three shall be monitored daily to verify compliance with the pH effluent limit in the event naturally occurring biological processes are occurring. In the event a natural biological process occurs in pond three, the permittee must comply with Part III.H.2 requirements in this permit.

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

There shall be no discharge that 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 by the facility.

Discharge may only occur from Outfall 001, Outfall 003, or Outfall 004 at any time. No discharge shall occur from Outfall 001 when there is a discharge from Outfall 003 or 004.

4. Final Effluent Limitations for Outfall 003
(Effective January 1, 2019)

Numeric Discharge Limitations: Outfall 003 [1]			
Parameter/Code	Units	Average Monthly	Daily Maximum
Biochemical Oxygen Demand (00310)	lb/day	511	919
Net Total Suspended Solids (00530) [2]	lb/day	409	640
Chemical Oxygen Demand (81017)	lb/day	3,558	6,869
Oil and Grease (00552)	lb/day	148	279
Oil and Grease (00552)	mg/L	--	10
Phenolic Compounds (32730)	lb/day	1.97	6.9
Ammonia as N (00610)	lb/day	267	587
Sulfide	lb/day	2.6	5.8
Total Chromium (01118)	lb/day	2.26	6.52
Hexavalent Chromium (01032)	lb/day	0.2	0.43
Acute Whole Effluent Toxicity (WET)	% Effluent	--	> 100%

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. Use intake water TSS at river water pump house and TSS recorded from Outfall 001 or Outfall 003 to determine "Net" TSS.

The pH of the discharge shall remain between 6.0 and 9.0 standard units unless such variation is due to natural biological processes. The pH in pond three shall be monitored daily to verify compliance with the pH effluent limit in the event naturally occurring biological processes are occurring. In the event a natural biological process occurs in pond three, the permittee must comply with Part III.H.2 requirements in this permit.

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

There shall be no discharge that 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 by the facility.

Discharge may only occur from Outfall 001, Outfall 003, or Outfall 004 at any time. No discharge shall occur from Outfall 003 when there is a discharge from Outfall 001 or 004.

5. Final Effluent Limitations for Outfall 004
(Effective immediately upon the issuance of the Final Permit)

Numeric Discharge Limitations: Outfall 004 (1)			
Parameter/Code	Units	Average Monthly	Daily Maximum
Biochemical Oxygen Demand (00310)	lb/day	511	919
Net Total Suspended Solids (00530) (2)	lb/day	409	640
Chemical Oxygen Demand (81017)	lb/day	3,558	6,869
Oil and Grease (00552)	lb/day	148	279
Oil and Grease (00552)	mg/L	--	10
Phenolic Compounds (32730)	lb/day	1.97	6.9
Ammonia as N (00610)	lb/day	267	587
Sulfide, Total (00745)	lb/day	2.6	5.8
Total Chromium (01118)	lb/day	2.26	6.52
Hexavalent Chromium (01032)	lb/day	0.2	0.43
Acute Whole Effluent Toxicity (WET)	% Effluent	--	> 100%

Footnotes:
(1) See Definitions section at end of permit for explanation of terms.
(2) Use intake water TSS at river water pump house and effluent TSS recorded from Outfall 001, 003, or 004 to determine "Net" TSS.

The pH of the discharge shall remain between 6.0 and 9.0 standard units unless such variation is due to natural biological processes. The pH in pond three shall be monitored daily to verify compliance with the pH effluent limit in the event naturally occurring biological processes are occurring. In the event a natural biological process occurs in pond three, the permittee must comply with Part III.H.2 requirements in this permit.

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

There shall be no discharge that 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 by the facility.

Discharge may only occur from Outfall 001, Outfall 003, or Outfall 004 at any time. No discharge shall occur from Outfall 004 when there is a discharge from Outfall 001 or 003.

C. Monitoring Requirements

1. Outfall 001, 003, and 004 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.

Sample analyses for any "nondetect" results must meet Required Reporting Values (RRVs) in Circular DEQ-7 and Laboratory Method Limits (MLs) for volatile organics (EPA Methods 1624) and semi-volatile organics (1625 Revision B), unless another method is requested and approved by DEQ, in writing. Laboratory results for volatile organics and semi-volatile organics samples must be attached to the DMR for the month in which the sample was obtained.

Wastewater samples must be obtained at the final retention pond overflow (Pond 6) at 45.82052, -108.42911.

Monitoring Requirements for Outfall 001, 003, and 004 (1)				
Parameter/Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type (1)**	**RRV (1)**
Flow rate/00056	mgd	Continuous	Recorded	--
Biochemical Oxygen Demand (BOD_5)/00310	mg/L	1/Week	Composite	2
	lb/day	1/Week	Calculate	
Total Suspended Solids (Effluent)	mg/L	1/Week	Grab	10
Total Suspended Solids (Intake)	mg/L	1/Week	Grab	10
Net Total Suspended Solids/00530	mg/L	1/Week	Calculate	10
	lb/day	1/Week	Calculate	
Chemical Oxygen Demand (COD)/81017	mg/L	1/Week	Composite	5
	lb/day	1/Week	Calculate	
pH/00400	s.u.	1/Day	Instantaneous	0.1
Temperature/00011	°F	1/Week	Instantaneous	1
Total Ammonia as N/00610	mg/L	1/Week	Composite	0.07
Nitrate + Nitrite as N/00630	mg/L	1/Week	Composite	0.02
Total Kjeldahl Nitrogen/00625	mg/L	1/Week (2)	Composite	0.225
Total Nitrogen/00600	mg/L	1/Week (2)	Calculate	--
Total Phosphorus as P/00665	mg/L	1/Month (2)	Composite	0.003
Arsenic/00978	µg/L	1/Month	Composite	1
Oil and Grease/00552	mg/L	1/Week	Grab	1
Dissolved Oxygen/00300	mg/L	1/Quarter	Grab	0.3

Monitoring Requirements for Outfall 001, 003, and 004 (1)				
Parameter/Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type (1)**	**RRV (1)**
Sulfide, Total / 00745	µg/L	1/Week	Composite	20
	lb/day	1/Week	Calculate	--
Sulfide, Dissolved / 00746	µg/L	1/Week	Composite	20
Hydrogen Sulfide (H_2S) / 71875	µg/L	1/Week	Composite	20 (3)
Phenolic Compounds/32730	ug/L	1/Week	Grab	10
	lb/day	1/Week	Calculate	
Chromium, Total/01118	µg/L	1/Week	Composite	10
	lb/day	1/Week	Calculate	
Chromium, Hexavalent-`/01032	µg/L	1/Week	Composite	10
	lb/day	1/Week	Calculate	
Volatile Organics 2, 4, 5	µg/L	1/Quarter	Grab	--
Semi-volatile Compounds 3,4, 5	µg/L	1/Quarter	Composite	--
Whole Effluent Toxicity, Acute 6	% Effluent	1/Quarter	Composite	--

Footnotes:
(1) See definitions in Part V of permit.
(2) Monitoring for TKN, TN, and TP are required only during the summer months of July 1 - October 31st.
(3) Calculate H_2S based on dissolved sulfide concentrations and pH in accordance with Standard Methods Method 4500-S2-, unless another method is proposed and accepted by the DEQ.
(4) 40 CFR 122, Appendix J, Table 2, use EPA Method 1624 Revision B, or equivalent.
(5) 40 CFR 122, Appendix J, Table 2, use EPA Method 1625 Revision B, or equivalent.
(6) See approved method for RRV or minimum level (ML).
(7) Attach laboratory results for volatile organics and semi-volatile compounds to the monthly DMR form.
(8) See Whole Effluent Toxicity Testing-Acute Toxicity in Part I.C.1.a.

During months when noncontact cooling water is diverted from the cooling water ditch (Outfall 002) to Pond 6 to melt ice and increase the pond water temperature, a copy of the log sheet recording the start and stop pumping times and estimated volume of cooling water pumped to Pond 6 must be attached to the monthly Discharge Monitoring Report (DMR) form.

For reporting periods when naturally occurring biological processes have resulted in Outfall 001 pH variations from permit limits, a table summarizing daily pH samples for Pond 3 effluent and Outfall 001 shall be submitted with the Discharge Monitoring Report form. The number of exceptions for Outfall 001 shall be reported as zero, provided Pond 3 effluent pH was within permit limits for the remaining reporting period.

Process wastewater from Pond 6 above Outfall 001 or Outfall 004 may be used as emergency make up water for non-contact cooling water and the fire water system (e.g., maintenance, flushing fire water mains/ monitors and HF Alkylation unit mitigation system). Amounts of wastewater used for non-contact cooling water shall be reported to DEQ with the monthly DMR. The mass shall be calculated for the limited parameters in the wastewater diverted from Pond 6 to the non-contact cooling water Outfall 002 and

shall be added to the mass reported for Outfall 001 or Outfall 004. The permittee shall contact the Department in advance if possible but no later than one working day after treated process wastewater is used for non-contact cooling make up water.

a. Whole Effluent Toxicity Testing – Acute Toxicity Monitoring Requirements

Starting in the first calendar quarter following the effective date of the permit, the permittee shall, at least once each quarter conduct an acute static-renewal toxicity test on a composite sample of the effluent. Testing will employ two species per quarter 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.

The acute static-renewal 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 Effluents and Receiving Waters 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 *Ceriodaphnia dubia* 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 CO_2 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.

The quarterly WET test results from the laboratory shall be reported along with the DMR form no later than the 28th day of the month following the completed reporting period. The format for the laboratory report shall be consistent with the latest revision of the EPA form Region VIII Guidance for Acute Whole Effluent Reporting, and shall include all chemical and physical data as specified.

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.C.1 of this permit. A TRE plan needs to be submitted to the permitting authority within 45 days after confirmation of the continuance of the effluent toxicity.

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 additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

2. Outfall 002

Samples must be obtained at the monitoring station on the "clean water ditch".

Monitoring Requirements for Outfall 002				
Parameter/Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type[1]**	**RRV**
Flow rate/00056 [2]	mgd	1/Week	Instantaneous	--
pH/00400	s.u.	1/Day	Instantaneous	0.1
Temperature/00011	°F	2/Week	Instantaneous	1
Oil and Grease/84066	Yes/No	1/Week	Visual	--
Oil and Grease/00552	mg/L	1/Week	Grab	1
Total Organic Carbon effluent	mg/L	1/Week	Grab	2
Total Organic Carbon intake	mg/L	1/Week	Grab	2
Net Total Organic Carbon /00680 [3]	mg/L	1/Week	Grab	2
Total Residual Chlorine/50060 [4]	mg/L	1/Day	Instantaneous	0.1
Arsenic, Total Recoverable	ug/L	1/Month	Grab	1

1. See definitions in Part V of the permit.
2. Use portable flow meter to measure flow velocity; use flow velocity to calculate mgd.
3. Use intake water TOC at river water pump house or upstream from the intake channel and TOC effluent recorded from Outfall 002 to determine "Net" TOC.
4. When chlorine is used as a biocide, total residual chlorine monitoring is required for one week after the last day chlorine is used.

The permittee shall provide and maintain an infrared monitoring system or equivalent for the monitoring and detection of oil sheen events upstream of Outfall 002. This early warning system shall conform to all operating, calibration, and maintenance procedures developed by the refinery.

Any time oil sheen reaches the Yellowstone River from Outfall 002, the following incident investigation procedures will be conducted:

a. Following regulatory notification and oil spill response/cleanup, an investigation team will be assembled that includes subject matter experts trained in root cause investigation techniques. Participants in the investigation may include environmental, safety, and process representatives. In addition, employees and contractors knowledgeable in the process area where the incident occurred may be participants in the investigation.

b. The incident investigation will compile factual data regarding the incident including, but not limited to, eyewitness interviews, process data, and incident and mitigation timelines.

c. Based on the factual data gathered, root cause analysis tool will be applied, and a final incident report generated, which will include recommendations to prevent similar future events. Reporting will be conducted pursuant to Part II of the permit.

3. Upstream Monitoring Requirements

Upstream monitoring shall be conducted during any period that ExxonMobil discharges process wastewater to the Yellowstone River, beginning immediately upon the effective date of the permit modification. The results shall be submitted on DMRs for the representative monitoring period and shall include the method and detection limit for each analysis and any calculations made for hydrogen sulfide concentrations.

Yellowstone River Ambient Monitoring (1)				
Parameter	**Units**	**Monitoring Frequency**	**Type**	**RRV**
pH	s.u.	Quarterly	Instantaneous	0.1
Temperature	deg C	Quarterly	Instantaneous	0.1
Ammonia (as N)	mg/L	Quarterly	Grab	0.07
Selenium, total recoverable	µg/L	Quarterly	Grab	1
Sulfide, Total	µg/L	Quarterly (2)	Grab	20
Sulfide, dissolved (3)	µg/L	Quarterly	Grab	20
Hydrogen Sulfide (4)	µg/L	Quarterly	Calculated	20
Conductivity	µmhos/cm	Quarterly (2)	Instantaneous	10

Footnotes:

(1) Monitoring location to be submitted to DEQ for approval prior to discharging directly to the Yellowstone River. The sample location must be upstream of the diffuser. Monitoring in accordance with the above frequency is required *during periods with discharge directly to the Yellowstone River.*

(2) Ambient total sulfide and conductivity monitoring required only needed if ExxonMobil uses the alternative method in Standard Methods 4500 S2- H to calculate ambient H_2S concentrations by using Table 2330:I to calculate ionic strength. Otherwise indicate NA.

(3) For dissolved sulfide, use the most appropriate method 4500 S2- *Standard Methods for the Examination of Water and Wastewater.*

(4) For hydrogen sulfide, use method 4500 S2- H. *Standard Methods for the Examination of Water and Wastewater*, unless another method is requested and approved in writing. The field pH must be recorded and noted with the sample.

D. Special Conditions

1. Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE)

If toxicity is detected, and it is determined by the Department that a TRE/TIE is necessary, the permittee shall be so notified and shall initiate a TRE/TIE immediately thereafter. The purpose of the TRE/TIE will be to establish the cause of the toxicity, locate the source(s) of the toxicity, and control or provide treatment for the toxicity. Failure to initiate or conduct an adequate TRE/TIE, 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.C.1 of this permit.

If the TRE/TIE establishes that the toxicity cannot be immediately eliminated, the permittee shall submit a proposed compliance plan to the Department. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the Department, this permit may be reopened to modify the compliance schedule in I.E, pursuant to ARM 17.30.1362.

If the TRE/TIE shows that the toxicity is caused by a toxicant(s) that may be controlled with specific numerical limitations, the permittee may:

a. Submit an alternative control program for compliance with the numerical requirements; and

b. If necessary, provide a modified whole effluent testing protocol which compensates for the pollutant(s) being controlled numerically.

If acceptable to the Department, this permit may be reopened and modified to incorporate any additional numerical limitations, a modified compliance schedule if judged necessary by the Department, and/or a modified whole effluent protocol.

Failure to conduct an adequate TRE/TIE, or failure to submit a plan or program as described above, or the submittal of a plan or program judged inadequate by the Department, shall not excuse the permittee from meeting the limits contained in Part I.C.1 of this permit.

2. Tank 350

Tank 350 shall only receive effluent that is piped from the API oil/water separator outlet. Placement of wastewaters and/or other material in Tank 350 using non-piped methods is prohibited.

E. <u>Compliance Schedule</u>

1. Final effluent limits, TRE proposal, and 316(b) requirements

The facility must submit annual reports from 2015 through 2019 describing progress made toward improving the wastewater treatment plant to meet final effluent limits before December 31 of each year.

The facility must submit an annual report by June 1, 2016 describing progress made toward eliminating toxicity in the discharge.

Compliance Schedule Purpose	Final Compliance Date	Milestones and Dates	Justification for Compliance Schedule
Implement final effluent limits.	1/1/2019	Submit annual reports from 2015 through 2019 describing progress made toward improving the wastewater treatment plant to meet final effluent limits before December 31 of each year.	Allow time to plan, design, and construct an improved wastewater treatment system.
Implement the Toxicity Reduction Evaluation (TRE) proposal described in correspondence to DEQ including proposed source control and treatment optimization efforts. Proposed source control and optimization efforts include the installation of a clarifier to increase biomass in Pond 3 by recycling the biomass.	6/1/2016	Submit an annual report by 6/1/2016 describing progress made toward eliminating toxicity in the discharge.	Allow additional time to implement the TRE.
Submit a Plan and Schedule describing baseline data and studies that the facility will collect for the Department to determine if the location, design, construction, and capacity of the existing cooling water intake structure reflects the best technology available for minimizing environmental impact under Section 316(b) of the Federal Clean Water Act. The Plan and Schedule shall address at minimum: the collection of information required by 40 CFR 122.21(r)(2) and (3); and, the applicable information in 40 CFR 122.21(r)(4) through (r)(8) in order to demonstrate compliance with the impingement standards in 40 CFR 125.94(c) and entrainment standards in 40 CFR 125.94(d). The permittee must also identify which compliance alternative(s) the facility will use to comply with the impingement mortality standard in 40 CFR 125.94(c).	6/1/2017	Submit Plan and Schedule by 6/1/2017.	Allow sufficient time to develop Plan and Schedule.
The permittee must submit the applicable baseline data required for the existing facilities in 40 CFR 122.21(r)(ii) and any additional data requested by the Department under 40 CFR 122.21(r)(ii)(C) with the facility's next MPDES permit application.	1/1/2020	1/1/2020	Allow sufficient time to collect baseline data.

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

Monitoring results must be reported on a Discharge Monitoring Report (DMR) EPA form 3320-1. Monitoring results must be submitted in either electronic or paper format and be postmarked no later than the 28th day of the month following the end of the monitoring period. Whole effluent toxicity (biomonitoring) results must be reported with copies of the laboratory analysis report on forms from the most recent version of EPA Region VIII's "Guidance for Whole Effluent Reporting". If no discharge occurs during the reporting period, "no discharge" must be reported on the report form. Legible copies of these, and all other reports required herein, must be signed and certified in accordance with Part IV.G 'Signatory Requirements' of this permit and submitted to DEQ at the following address:

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

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) 841-3953. 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 by the Department during administrative review of claims that noncompliance was caused by upset, and before an enforcement action for noncompliance, is final administrative action subject to judicial review (i.e. Permittees will have the opportunity to obtain judicial review of the Department's determination on any claim of upset 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:

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 fee assessment computed at the rates established under ARM 17.30.210; and,

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 and the permit issuing authority agrees with the conclusion.

c. The TRE/TIE results indicated that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits, and the permit issuing authority agrees that numerical controls are the most appropriate course of action.

d. Following the implementation of numerical controls on toxicants, the permit issuing authority agreed that 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 permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

V. DEFINITIONS

1. **"30-day (and monthly) average"**, other than for fecal coliform bacteria, means the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

2. **"7-day (and weekly) average,"** other than for fecal coliform bacteria, means the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The 7-day averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks in the month that has at least four days. For example, if a calendar week overlaps two months, the weekly average is calculated only in the month that contains four or more days of that week.

3. **"Acute Toxicity"** means 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. **"Annual Average Load"** means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.

5. **"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.

6. **"BOD_5"** means the five-day measure of pollutant parameter biochemical oxygen demand.

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

8. **"$CBOD_5$"** means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.

9. **"Chronic Toxicity"** occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC_{25}) for any tested species is less than or equal to the percent effluent represented by the effluent concentration in the receiving water after accounting for any allowable mixing zone.

10. **"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.

11. **"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.

12. **"Department"** means the Montana Department of Environmental Quality (DEQ).

13. **"Director"** means the Director of the United States Environmental Protection Agency's Water Management Division.

14. **"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.

15. **"EPA"** means the United States Environmental Protection Agency.

16. **"Grab"** sample, for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

17. **"Instantaneous"** measurement, for monitoring requirements, means a single reading, observation, or measurement.

18. **"Load limits"** are mass-based discharge limits expressed in units such as lb/day.

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))

20. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where water quality changes may occur. Also recognized as an area where certain water quality standards may be exceeded.

21. **"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.

22. **"Regional Administrator"** means the administrator of the EPA Region with Jurisdiction over federal water pollution control activities in the State of Montana.

23. **"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.

24. **"Sewage Sludge"** means any solid, semi-solid or liquid residue that contains materials removed from domestic sewage during treatment. Sewage sludge includes, but is not limited to, primary and secondary solids and sewage sludge products.

25. **"TIE"** means a toxicity identification evaluation.

26. **"TRE"** means a toxicity reduction evaluation.

27. **"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.

28. **"TSS"** means the parameter total suspended solids.

29. **"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.