

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.*,

CHS, Inc.

is authorized to discharge from its **Laurel Refinery**

located at **802 Highway 212 South, Laurel, MT,**

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: **November 1, 2022**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2027**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

|S| Jon Kenning

Jon Kenning, Chief
Water Protection Bureau
Water Quality Division

Issuance Date: September 30, 2022

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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>
002	<p>Location: Lower port primary diffuser, discharging into the Yellowstone River, located at 45°39'22.32" N latitude, 108°45'10.86" W longitude.</p> <p>Mixing Zone: None. There are no effluent limits that require a mixing zone.</p> <p>Treatment Works: Refinery wastewater treatment plant.</p>
003	<p>Location: Upper port secondary diffuser, discharging into the Yellowstone River, located at 45°39'22.32" N latitude, 108°45'10.86" W longitude.</p> <p>Mixing Zone: Acute mixing for 100 feet to provide 6.9% dilution, and chronic mixing for 1,000 feet to provide 27% dilution, for Total Residual Chlorine.</p> <p>Treatment Works: Refinery wastewater treatment plant.</p>

B. Effluent Limitations

Outfall 002 – Lower Port Primary Diffuser to Yellowstone River

Beginning November 1, 2022, until the end of the permit, CHS Laurel Refinery will be required to meet the following effluent limits at Outfall 002:

Table 1. Outfall 002 - Final Effluent Limits

Parameter <i>TR = Total Recoverable</i>	Units	Effluent Limits	
		Maximum Daily	Average Monthly
BOD ₅	lb/day	620	331
COD	lb/day	4,425	2,288
Net TSS	lb/day	532	339
Oil and Grease	mg/L	10	--
	lb/day	242	128
Phenol	lb/day	4.5	2.2
Ammonia, Total as N	lb/day	418	191
Chromium, TR	lb/day	9.1	5.2
Chromium, Hexavalent	lb/day	0.99	0.36
Sulfide	lb/day	3.9	1.8
Hydrogen Sulfide (H ₂ S) ⁽¹⁾	μg/L	3.5	1.5
Arsenic, TR ⁽²⁾	μg/L	19	13
pH	s.u.	Between 6.0 and 9.0, all times	
Whole Effluent Toxicity, Acute, LC ₅₀	% effluent	No acute toxicity	
Footnote: (1) The H ₂ S limits become effective November 1, 2025 . Any calculated results that show “non-detect” for H ₂ S at the RRV of 20 μg/L is considered compliance with the effluent limit. (2) The arsenic limits become effective November 1, 2025 .			

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.

At any time there is discharge from both Outfall 002 and 003, the effluent limits for Outfall 003 will apply. CHS will inform DEQ of the beginning and end of the dual discharge.

Outfalls 003 – Upper port secondary diffuser to Yellowstone River

Beginning November 1, 2022, until the end of the permit, CHS Laurel Refinery will be required to meet the following effluent limits at Outfall 003:

Table 2. Outfall 003 - Final Effluent Limits

Parameter <i>TR = Total Recoverable</i>	Units	Effluent Limits	
		Maximum Daily	Average Monthly
BOD ₅	lb/day	620	331
COD	lb/day	4,425	2,288
Net TSS	lb/day	532	339
Oil and Grease	mg/L	10	--
	lb/day	242	128
Phenol	lb/day	4.5	2.2
Ammonia, Total as N	lb/day	418	191
Sulfide	lb/day	3.9	1.8
Hydrogen Sulfide (H ₂ S) ⁽¹⁾	µg/L	3.3	1.6
Chromium, TR	lb/day	9.1	5.2
Hexavalent Chromium	lb/day	0.99	0.36
Total Residual Chlorine (net) ⁽²⁾	µg/L	400	170
Arsenic, TR ⁽³⁾	µg/L	19	13
pH	s.u.	Between 6.0 and 9.0, all times	
Whole Effluent Toxicity, Acute, LC ₅₀	% effluent	No acute toxicity	
Footnote:			
(1) The H ₂ S limits become effective November 1, 2025 . Any calculated results that show “non-detect” for H ₂ S at the RRV of 20 µg/L is considered compliance with the effluent limit.			
(2) CHS may demonstrate compliance with the TRC limit by discounting the manganese oxide interference and reporting the net TRC concentration. Any results less than the RL of 50 µg/L are considered compliance with the effluent limit.			
(3) The arsenic limits become effective November 1, 2025 .			

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.

C. Monitoring Requirements

Samples shall be collected, preserved, and analyzed in accordance with approved procedures listed in 40 CFR 136. Data supplied by CHS must meet either provide a detect or non-detect at the required Reporting Level (RL) which is either the Required Reporting Value (RRV) listed in Circular DEQ-7 or another detection level that is DEQ’s best determination of a level that can be achieved using EPA-approved methods or methods approved by DEQ.

Results shall be submitted electronically on NetDMRs by the 28th of the of the month following the end of the monitoring period.

1. *Outfalls 002 and 003*

Samples will reflect the nature of the discharge. As a minimum, the constituents shall be monitored at the frequencies and with the types of measurements indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge.

Self-monitoring of effluent shall be conducted following final treatment, at the outlet of the discharge pumps prior to the forced main unless another location is requested and approved by DEQ in writing. If there is no discharge from an outfall for the month, “No Discharge” shall be indicated for that outfall.

Table 3. Summary of Effluent Monitoring Requirements ⁽¹⁾ – Outfalls 002 and 003

Parameter	Units	Monitoring Frequency	Type	Reporting Requirement	RL
Flow	MGD	Continuous	Instantaneous ⁽²⁾	Daily Max & Mo Avg	--
pH	s.u.	1/Day	Instantaneous ⁽²⁾	Daily Min & Daily Max	0.1
BOD ₅	mg/L	1/Week	Composite	Daily Max & Mo Avg	--
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
COD	mg/L	1/Week	Composite	Daily Max & Mo Avg	--
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
TSS – Intake Water	mg/L	1/Week	Composite	None	--
TSS – Effluent Gross	mg/L	1/Week	Composite	None	--
TSS – Net ⁽³⁾	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Oil and Grease	mg/L	1/Week	Grab	Daily Max & Mo Avg	1
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Phenol	µg/L	1/Month	Grab	Daily Max & Mo Avg	10
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Ammonia (as N)	mg/L	1/Week	Composite	Daily Max & Mo Avg	0.07
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Sulfide, Total	µg/L	1/Week	Composite	Daily Max & Mo Avg	--
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Sulfide, Dissolved	µg/L	1/Week	Composite	Daily Max & Mo Avg	--
Hydrogen Sulfide (H ₂ S) ⁽⁴⁾	µg/L	1/Week	Calculated	Daily Max & Mo Avg	20
Chromium, TR	µg/L	1/Month	Composite	Daily Max & Mo Avg	10
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Chromium, Hexavalent	µg/L	1/Month	Composite	Daily Max & Mo Avg	2
	lb/day	1/Month	Calculated	Daily Max & Mo Avg	--
Arsenic, TR	µg/L	1/Week	Composite	Daily Max & Mo Avg	1
Total Residual Chlorine, Net	µg/L	1/Week	Grab	Daily Max & Mo Avg	50

Parameter	Units	Monitoring Frequency	Type	Reporting Requirement	RL
Fluoride	mg/L	1/Quarter	Composite	Report	200
Aluminum, Dissolved	µg/L	1/Quarter	Composite	Report	9
Cyanide	µg/L	1/Quarter	Grab	Report	3
Iron, TR	µg/L	1/Quarter	Composite	Report	20
Lead, TR	µg/L	1/Quarter	Composite	Report	0.3
Mercury, TR	µg/L	1/Quarter	Composite	Report	0.005
Selenium, TR	µg/L	1/Quarter	Composite	Report	1
Alpha Emitters	pCi/L	2/Year	Composite	Report	--
Beta Emitters	mrem/yr	2/Year	Composite	Report	--
Radium 228 + total	pCi/L	2/Year	Composite	Report	--
Nitrate + Nitrite (Nov 1 – July 31)	mg/L	1/Quarter	Composite	Daily Max & Mo Avg	0.02
Nitrate + Nitrite (Aug 1 – Oct 31)	mg/L	1/Week ⁽⁵⁾	Composite	Daily Max & Mo Avg	0.02
Total Kjeldahl Nitrogen (TKN)	mg/L	1/Week ⁽⁵⁾	Composite	Mo Avg	0.225
TN ⁽⁶⁾	mg/L	1/Month ⁽⁵⁾	Calculated	Mo Avg	0.245
	lb/day	1/Month ⁽⁵⁾	Calculated	Mo Avg	--
TP	mg/L	1/Week ⁽⁵⁾	Composite	Mo Avg	0.003
	lb/day	1/Month ⁽⁵⁾	Calculated	Mo Avg	--
Temperature	° C	1/Month	Instantaneous	Daily Max & Mo Avg	0.1
Whole Effluent Toxicity, Acute	% Effluent	1/Quarter ⁽⁷⁾	Grab	Pass/Fail	--

Footnotes: RL = Reporting Level

- (1) The effluent monitoring location must be after all treatment has been completed (*i.e.*, downstream from all treatment units, and prior to entry to the receiving waters).
- (2) Requires recording device or totalizer.
- (3) Mass-based net TSS calculated by first determining mass-based net TSS discharge on a daily basis, then determining daily maximum and monthly average for the month.
- (4) H₂S concentrations are calculated based on the dissolved sulfide concentration and the sample pH and other parameters at time of sampling, in accordance with Standard Methods 4500-S₂-H, unless another method is proposed by CHS and accepted by DEQ. Field data (pH, conductivity (µmhos/cm) and temperature), taken of an unpreserved water sample shall be recorded at the time the dissolved sulfide sample is collected. This field data must be used in the H₂S calculations.
- (5) Monitoring required only during the summer season of August 1 – October 31st.
- (6) TN is the sum of Nitrate+Nitrite and TKN.
- (7) Per the 2021/2022 TIE/TRE, two species conducted at least monthly unless CHS is approved to revert to quarterly. At minimum, failure of any acute Whole Effluent Toxicity (WET) test requires that the permittee comply with the Permit's Special Conditions.

Composite samples shall, as a minimum, be composed of four or more discrete aliquots (samples) of equal volume. The aliquots shall be combined in a single container for analysis (simple composite). 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.

2. Yellowstone River – Ambient Conditions

As a minimum, the following constituents shall be monitored for the Yellowstone River at the frequency and with the type of measurement indicated. Results must be

provided on NetDMRs by the 28th of the month following the end of the monitoring period. CHS must use a sufficiently sensitive method to detect the parameters at or above the RRV as specified in Circular DEQ-7 or other Reporting Level specified by DEQ; if this is not possible for any of the samples an explanation must be provided.

Upstream Monitoring Requirements as specified in this section shall be conducted beginning in **2022** through **2025**. CHS shall submit a topo map or aerial photo indicating the ambient monitoring location. If the sample location is changed, CHS shall submit a revised monitoring location prior to taking the next sample.

Table 4. Upstream Monitoring Requirements for Yellowstone River

Parameter	Units	Monitoring Frequency	Type	RL
Sulfide, Dissolved	µg/L	1/Quarter	Grab	--
Hydrogen Sulfide (H ₂ S)	µg/L	1/Quarter ⁽¹⁾	Calculated	20
pH	s.u.	1/Quarter ⁽¹⁾	Instantaneous	0.1
Conductivity	µmhos/cm	Optional for H ₂ S ⁽¹⁾	Instantaneous/Grab	--
Total Dissolved Solids	mg/L	Optional for H ₂ S ⁽¹⁾	Grab	--
Temperature	°C	1/Quarter ⁽¹⁾	Instantaneous	0.1
Hardness, as CaCO ₃	mg/L	1/Quarter	Grab	--
Total Nitrogen ⁽²⁾	µg/L	1/Month ⁽³⁾	Grab or Calculated	0.245
Total Phosphorus	µg/L	1/Month ⁽³⁾	Grab	0.003
Aluminum, Dissolved	µg/L	1/Quarter	Grab	9
Cyanide	µg/L	1/Quarter	Grab	3
Iron, TR	µg/L	1/Quarter	Grab	20
Lead, TR	µg/L	1/Quarter	Grab	0.3
Mercury	µg/L	1/Quarter	Grab	0.005
Selenium	µg/L	1/Quarter	Grab	1
Alpha emitters	pCi/L	1/Quarter	Instantaneous	--
Beta emitters	mrem/yr	1/Quarter	Instantaneous	--
Radium, 228 and total	pCi/L	1/Quarter	Instantaneous	--

Footnotes: RL = Reporting Level

- (1) H₂S concentrations are calculated based on the dissolved sulfide concentration and pH (using look-up table), and potentially TDS and other field parameters (for equation method) in accordance with Standard Methods 4500-S²-H, unless another method is proposed by CHS and accepted by DEQ. Field data taken of an unpreserved water sample shall be recorded *at the time the dissolved sulfide sample is collected*. This field data must be used to calculate the H₂S concentration from the laboratory-provided dissolved sulfide data.
- (2) TN can be determined by either the persulfate method or the sum of Nitrate + Nitrite and TKN, as long as the method is capable of having a detect or meeting the RRV.
- (3) Monitoring required only during the Yellowstone summer season of August 1 – October 31st.

3. *Whole Effluent Toxicity (WET) Monitoring – Acute Toxicity*

CHS is required to continue monthly two-species WET testing and the Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIE/TRE) investigations until they have identified and reduced the source of toxicity and can demonstrate treatment improvements that are sufficient to pass two-species WET tests for at least six months. At this point CHS can request to revert to two-species on a quarterly basis and DEQ will review and approve or disapprove, in writing.

For each WET test, CHS shall conduct an acute static renewal toxicity test on a grab sample of the effluent. Testing will employ two species and will consist of five 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 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 Test* testing protocols. The permittee shall conduct an acute 48-hour static renewal toxicity test using *Ceriodaphnia* sp. and an acute 96-hour static renewal toxicity test using fathead minnows (*Pimephales promelas*). 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.

Furthermore, if CHS can demonstrate in the TIE/TRE that chlorine is a contributing factor for the acute test failures, DEQ may consider sample pre-treatment for removal of chlorine. CHS may provide parallel acute tests, but not replace existing tests, until DEQ has approved this revision, in writing.

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 DEQ. 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 (not as part of the accelerated testing for a TIE/TRE), an additional test is required to be conducted within 14 days of the date of the initial sample. Should acute toxicity occur in the second test, testing shall occur once a month until further notified by DEQ. In all cases, the results of all toxicity tests must be submitted to the Department in accordance with Part II of this permit. All WET tests including retests must be two species.

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

needs to be submitted to DEQ within 45 days after confirmation of the continuance of the effluent toxicity.

The quarterly WET test results from the laboratory shall be reported along with the NetDMR report 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.

CHS is not eligible to further reduce the frequency to semi-annual during this permit cycle. CHS must continue the accelerated testing until they are able to prove the TIE/TRE was successful (by passing six months of two-species tests); at that time DEQ will review and, if appropriate, approve the reduction to quarterly two-species tests.

D. Special Conditions

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

Should the effluent exceed the acute toxicity limitation in a routine test and is confirmed as persistent by the additional test, 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 of, or treatment for the toxicity. Failure to 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. A TRE plan needs to be submitted to DEQ within 45 days after confirmation of the continuance of the effluent toxicity.

2. *Arsenic and Hydrogen Sulfide*

Beginning in January 2023, CHS shall submit an annual report to DEQ no later than January 28th for each year, with the final report due November 14, 2025. The report shall summarize the progress made in achieving compliance with the arsenic and hydrogen sulfide effluent limits over the previous year and the actions planned for the upcoming year.

The first year's annual report will include a Standard Operating Procedure for collecting data and computing the Hydrogen Sulfide concentrations for both the effluent and the ambient conditions. The raw data, computations, and results for the monthly NetDMR hydrogen sulfide values will be attached as a report in FACTS or NetDMR.

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 within a Discharge Monitoring Report (DMR). Monitoring results must be submitted electronically (NetDMR web-based application) 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 entire reporting period, "No Discharge" must be reported within the respective DMR.

All other reports 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

E. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit must be submitted to the Department in either electronic or paper format and be postmarked no later than 14 days following each schedule date unless otherwise specified in the permit.

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, 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) 444-5546 or the Office of Disaster and Emergency Services at (406) 324-4777. 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) 444-5546.
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;
- 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 Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges.

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 computed at the rate established under ARM 17.30.201; 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.
 - 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”** means a sample composed of four or more discrete aliquots (samples). The aggregate sample will reflect the average quality of the water or wastewater in the compositing or sample period. Composite sample may be composed of constant volume aliquots collected at regular intervals (simple composite) or flow proportioned.
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 (DEQ). 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.
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.