

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.*,

City of Livingston

is authorized to discharge from its **Wastewater Treatment Plant**

located at **330 Bennett St., Livingston, MT 59047**

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: **{to be determined}**.

This permit and the authorization to discharge shall expire at midnight, **{to be determined}**.

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

DRAFT

Jon Kenning, Chief
Water Protection Bureau

Issuance Date: _____

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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.

Outfall

Description

001

Location: At the end of the pipe, discharging into the Yellowstone River, located at 45.67607N, 110.53741W

Mixing Zone: Instantaneous mixing zones:

Chronic - extending 2,500 feet downstream, for ammonia and total residual chlorine

Acute – extending 250 feet downstream, for ammonia and total residual chlorine

Treatment Works: Rotating Biological Contactors with ultraviolet and chlorine disinfection; average daily design flow of 2.0 million gallons per day (mgd)

B. Effluent Limitations

Outfall 001

Upon the effective date of the permit, unless otherwise noted, and lasting through the term of the permit, the quality of effluent discharged through Outfall 001 shall, as a minimum, meet the limitations as set forth below:

Table 1. Effluent Limitations: Outfall 001				
Parameter	Units	Effluent Limitations ⁽¹⁾		
		Average Monthly Limit	Average Weekly Limit	Daily Maximum Limit
5-Day Biochemical Oxygen Demand	mg/L	30	45	--
	lbs/day	450	751	--
	% removal	85	--	--
Total Suspended Solids	mg/L	30	45	--
	lbs/day	450	751	--
	% removal	85	--	--
pH ⁽²⁾	s.u.	6.0 – 9.0		
<i>Escherichia coli</i> bacteria ⁽³⁾⁽⁵⁾	cfu/100ml	126	252	--
<i>Escherichia coli</i> bacteria ⁽⁴⁾⁽⁵⁾	cfu/100ml	630	1,260	--
Oil and Grease	mg/L	--	--	10
Total Residual Chlorine	µg/L	74 ⁽⁶⁾	--	136
Total Ammonia, as N ⁽⁷⁾	mg/L	6.2	--	12.5
Footnotes:				
1. See definitions in the permit.				
2. Effluent pH shall remain between 6.0 and 9.0 (instantaneous minima and maxima). For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.				
3. This limit applies from April 1 through October 31.				
4. This limit applies from November 1 through March 31.				
5. The geometric mean of the samples taken for the sample period (monthly or weekly) may not exceed these values.				
6. TRC sample results indicating non-detect at a reporting limit equal to or less than 100 µg/L will be considered in compliance with the average monthly limit.				
7. The ammonia limits apply beginning five years from the effective date of the permit.				

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

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

C. Monitoring Requirements

1. Influent / Outfall 001

At 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. Samples shall be collected, preserved, and analyzed in accordance with approved procedures listed in 40 CFR Part 136, unless another test procedure has been specified in this permit. All analytical procedures must

meet any Required Reporting Values (RRVs) listed in Department Circular DEQ-7 (DEQ-7) as specified below.

Starting with the effective date of the permit and lasting for the duration of the permit cycle, self-monitoring of influent will be conducted at the Parshall flume in a manhole near the headworks building, and self-monitoring of the effluent discharged at Outfall 001 shall be conducted the Parshall flume located between the UV system and the chlorine contact chamber, unless another location is requested and acknowledged by DEQ in writing.

If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report that no discharge or overflow occurred.

Table 2. Monitoring and Reporting Requirements

Parameter	Monitoring Location	Units	Sample Type ⁽¹⁾	Minimum Sample Frequency	Reporting Metric	Required Reporting Value ⁽²⁾
Flow	Effluent	mgd	Instantaneous ⁽³⁾	Continuous	Daily Maximum Monthly Flow	NA
5-Day Biochemical Oxygen Demand	Influent	mg/L	Composite	3/Week	Weekly Average Monthly Average	NA
	Effluent	mg/L	Composite	3/Week		
	NA	% Removal ⁽⁴⁾	Calculated	Monthly	Monthly Average	
	Effluent	lbs/day	Calculated	Monthly	Weekly Average Monthly Average	
Total Suspended Solids	Influent	mg/L	Composite	3/Week	Weekly Average Monthly Average	NA
	Effluent	mg/L	Composite	3/Week		
	NA	% Removal ⁽⁴⁾	Calculated	Monthly	Monthly Average	
	Effluent	lbs/day	Calculated	Monthly	Weekly Average Monthly Average	
pH	Effluent	s.u.	Instantaneous	Daily	Daily Maximum Daily Minimum	NA
Oil Sheen	Effluent	Presence	Observation	Daily	Present/Absent	NA
Oil and Grease	Effluent	mg/L	Grab	Monthly ⁽⁵⁾	Monthly Maximum	NA
<i>E. coli</i> bacteria	Effluent	cfu/100 ml	Grab	3/Week	Weekly Average Monthly Average	NA
Total Residual Chlorine ⁽⁶⁾	Effluent	µg/L	Grab	Daily	Daily Maximum Monthly Average	100
Total Ammonia, as N	Effluent	mg/L	Composite	3/Week	Daily Maximum Monthly Average	0.070
Nitrate + Nitrite, as N	Effluent	mg/L	Composite	Monthly	Weekly Maximum Monthly Average	0.020
Nitrate + Nitrite, as N – summer ⁽⁷⁾				Weekly ⁽⁸⁾		
Total Kjeldahl Nitrogen ⁽⁷⁾	Effluent	mg/L	Composite	Weekly ⁽⁸⁾	Weekly Maximum Monthly Average	0.225

Table 2. Monitoring and Reporting Requirements

Parameter	Monitoring Location	Units	Sample Type ⁽¹⁾	Minimum Sample Frequency	Reporting Metric	Required Reporting Value ⁽²⁾
Total Nitrogen, as N ⁽³⁾	Effluent	mg/L	Calculated	Weekly ⁽⁸⁾	Weekly Maximum Monthly Average	NA
	Effluent	lbs/day	Calculated	Monthly ⁽⁸⁾	Monthly Average	NA
Total Phosphorus, as P	Effluent	mg/L	Composite	Weekly ⁽⁸⁾	Weekly Maximum Monthly Average	0.003
	Effluent	lbs/day	Calculated	Monthly ⁽⁸⁾	Monthly Average	NA
Whole Effluent Toxicity, Acute	Effluent	% Effluent	Composite	Quarterly ⁽⁹⁾	Pass/Fail	NA
Copper, Total Recoverable	Effluent	µg/L	Composite	Monthly	Daily Maximum Monthly Average	2

Footnotes: NA=Not applicable

1. See Definition section at end of permit for explanation of terms.
2. See Circular DEQ-7 or DEQ-12A for more information on RRVs. Analysis must achieve these, or lower, reporting limits.
3. Requires recording device or totalizer.
4. Percent (%) removal shall be calculated using the monthly average values.
5. Oil & grease analysis must be conducted monthly plus anytime a visual sheen is observed in the effluent.
6. The Permittee is only required to sample for total residual chlorine if chlorine is used as a disinfectant in the treatment process. If chlorine is *not* used, indicate on the monthly report "NODI CODE = 9" (Conditional monitoring not required this period).
7. The total nitrogen concentration may be analyzed by either persulfate digestion, or by the sum of total Kjeldahl nitrogen plus nitrate+nitrite; the RRV for the selected method must be sufficient for detecting the TN concentration or meet the lowest RRV. If persulfate digestion is used, the Permittee is not required to conduct the weekly summer sampling for N+N or TKN.
8. Nutrient sample collection required only during the summer months of August, September, and October.
9. After four quarters that pass the WET tests for both species, the Permittee may request DEQ to revise the monitoring to semi-annual two species as described in Part I.C.4.

2. Upstream

The permittee will be required to monitor for the following parameters at a location in the receiving water upstream and outside the influence of their discharge. The upstream sampling location must be clearly marked.

Upstream monitoring must be conducted regardless of whether or not the facility discharges during that reporting period. The upstream monitoring results shall be reported on DMRs with copies of the lab analysis attached.

Table 3. Instream Monitoring Requirements				
Parameter	Units	Sample Type ⁽¹⁾	Minimum Sample Frequency	Required Reporting Value ⁽²⁾
Total Nitrogen ⁽³⁾	mg/L	Grab or Calculated	Monthly ⁽⁴⁾	0.07
Total Phosphorus	mg/L	Grab	Monthly ⁽⁴⁾	0.003
Total Ammonia, as N	mg/L	Grab	Quarterly	0.070
pH	s.u.	Instantaneous	Quarterly	NA
Temperature	°C	Instantaneous	Quarterly	NA
Hardness	mg/L	Grab	Quarterly	NA
Copper, Total Recoverable	µg/L	Grab	Quarterly	2

Footnotes: NA=Not applicable
(1) See Definition section at end of permit for explanation of terms.
(2) See Circulars DEQ-7 and DEQ-12A for more information on RRVs. Analysis must achieve these, or lower, reporting limits.
(3) The ambient total nitrogen concentration may be analyzed by either persulfate digestion or by the sum of total Kjeldahl nitrogen plus nitrate+nitrite; the RRV for the selected method must be sufficient for detecting the TN concentration or meet the lowest RRV.
(4) Nutrient sample collection required monthly during the summer months of August, September, and October.

3. Reporting Requirements

Load Calculations

Effluent limitations or monitoring requirements that are expressed in terms of load (lb/day), must be based on total mass of the discharge in accordance with the definition of daily discharge in Part V of this permit. The total mass shall be calculated using the following equations:

$$\text{Load (lb/day)} = \text{Daily Discharge (mg/L)} \times \text{Daily Flow (MGD)} \times 8.34$$

The daily flow used to calculate the load must be measured in the same calendar day or 24-hour period in which the effluent sample is collected for either method.

Percent (%) Removal

The percent removal shall be calculated using the following formula:

$$\% \text{ Removal} = \frac{[\text{Influent Concentration}] - [\text{Effluent Concentration}]}{[\text{Influent Concentration}]} \times 100\%$$

Where:

Influent Concentration = 30-Day average influent concentration based on the analytical results of the reporting period.

Effluent Concentration = 30-Day average effluent concentration based on the analytical results of the reporting period.

4. Whole Effluent Toxicity Testing – Acute Toxicity

Starting in the first calendar quarter following the effective date of the permit, the permittee shall conduct an acute static replacement toxicity test on a composite sample of the effluent in accordance with the above monitoring table. Testing will employ two species and will consist of five effluent concentrations (100, 50, 25, 12.5, and 6.25 percent effluent) and a control. Dilution water and the control shall consist of the receiving water. Samples shall be collected on a two day progression; i.e., if the first quarterly sample is on a Monday, the second quarter sample shall be on a Wednesday, etc. Saturdays, Sundays and Holidays will be skipped in the progression.

The static renewal WET 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*. 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*). Test solutions must be renewed every 24 hours. The control of pH in the WET test utilizing CO₂ enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection.

Acute toxicity occurs when 50 percent or more mortality is observed for either test 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, resampling for an additional test (a resample test) shall be conducted within 14 days of the date the permittee is informed of the test failure. If acute toxicity occurs in the resample test, then the permittee is required to:

- a. Increase the WET testing frequency from quarterly to monthly until further notified by DEQ; and
- b. Undertake a Toxicity Identification Evaluation /Toxicity Reduction Evaluation.

In all cases, the results of all WET tests must be submitted to DEQ in accordance with Part II of this permit.

The WET test results from the laboratory shall be reported along with the DMR submitted for the end of the reporting period (e.g., the WET test results for the reporting quarter ending on March 31st shall be reported with the March DMR due April 28th; the remaining quarterly WET test results shall be submitted with the June, September, and December DMRs respectively). The format for the laboratory report shall be consistent with the latest revision of *the Region VIII Guidance for Acute Whole Effluent Reporting*, and shall include all chemical and physical data as specified.

If the results for four consecutive quarters of WET testing indicate no acute toxicity, the permittee may request a reduction to semi-annual acute WET testing for the two species. DEQ may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

D. Special Conditions

1. Toxicity Reduction Evaluation / Toxicity Identification Evaluation:

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

A TRE plan shall be submitted to DEQ within 45 days after confirmation of the continuance of effluent toxicity (resample). The permittee shall use as guidance the manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002).

If the TRE/TIE establishes that the toxicity cannot be eliminated, the permittee shall submit a proposed compliance plan to DEQ. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for the implementation of the proposed approach. If the approach and schedule are acceptable to DEQ, this permit may be reopened and modified.

2. Infiltration/Inflow

Because the permittee has an average daily design flow of greater than 0.1 mgd, the permittee shall evaluate the influences from Infiltration/Inflow (I/I) on their Publicly Owned Pretreatment Works (POTW). The evaluation shall include:

- a. An estimate of the amount and sources of I/I to the collection system,
- b. An evaluation of whether the estimated I/I rate is acceptable,
- c. Summary of work accomplished to minimize the I/I during the permit cycle, and

- d. Overview of any additional work planned to reduce the I/I and a projected schedule.

The summary shall be submitted to DEQ no later than 180 days prior to the expiration date of this permit.

3. Operation & Maintenance (O & M) Manual

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 the permit. A wastewater treatment system must have an O&M manual developed at the time of construction and/or upgrade. Each permitted facility is required to:

- a. Maintain an up-to-date O&M manual;
- b. Follow the procedures in the O&M manual;
- c. Conduct inspections in accordance with an established schedule in order to ensure the O&M procedures are being followed and are working; and
- d. Maintain records of the routine inspections and any follow-up.

4. Sewage Sludge

The use or disposal of sewage sludge must be in conformance with 40 CFR Part 503.

5. Compliance Schedule

The actions listed in the table below must be completed on or before the respective scheduled completion dates. The completion of all actions or deliverables must be reported to DEQ at the address listed in Part II.D. of the permit and in accordance with the signatory requirements of Part IV.G. of the permit.

Table 4. Compliance Schedule

Table 4. Compliance Schedule			
Action		Frequency	Report Due Date ⁽¹⁾
Ammonia:			
1	The City shall submit an annual progress report to DEQ, for actions taken to meet the future ammonia limits for the previous year, as well as projected efforts for the upcoming year.	Annual	January 28, 2017 and annually thereafter until Action item 2 is due.
2	The City shall meet the new ammonia limits.	Single Event	Due five years from the effective date of the permit.
3	The City shall submit a final report on the efforts achieved in meeting the new limits	Single Event	Due within thirty (30) days after Action item 2.
Total Recoverable Copper:			
4	The City shall submit an annual progress report to DEQ, for actions taken the previous year and projected efforts for the upcoming year, on total recoverable copper. The effort should include, but is not limited to: <ul style="list-style-type: none"> identifying sources and relative contributions of copper to the wastewater influent and evaluating the feasibility of upstream controls for these sources (such as water supply corrosion inhibition); evaluating the effectiveness of copper removal from the upgraded WWTP; summarizing the upstream monitoring results for total recoverable copper (at or below the RRV) as well as upstream hardness; evaluating the potential for acute and chronic source-specific mixing zones; and predicting whether the WWTP will be able to meet any necessary total recoverable copper limits during the next renewal cycle. 	Annual	January 28, 2017 and annually thereafter until Action item 2 is due.
5	The City shall submit a complete report to DEQ that includes a summary of the total recoverable copper evaluation and reduction efforts.	Single Event	Due five years from the effective date of the permit.
Footnotes:			
1. This notification must be postmarked or electronically submitted to DEQ on or before the scheduled due date.			

E. Pretreatment Requirements

The permittee does not have a pretreatment program regulated by the U.S. Environmental Protection Agency (EPA). The following provisions apply to this POTW:

1. The permittee shall not allow any user to introduce into a POTW any pollutants which cause Pass Through or Interference. These general prohibitions and the specific prohibitions of this permit apply to all non-domestic sources introducing pollutants into a POTW whether or not the

source is subject to other pretreatment standards or any national, state or local pretreatment requirements.

2. The following pollutants may not be introduced into a POTW:
 - a. Pollutants which create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius using the test methods specified in 40 CFR 261.21;
 - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
 - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
 - d. Any pollutant, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;
 - e. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Celsius (104 degrees Fahrenheit) unless DEQ, upon request of the POTW, approves alternative temperature limits;
 - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
 - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
3. All POTWs must provide adequate notice to DEQ of the following:
 - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to federal effluent guidelines and standards [40 CFR Subchapter N] if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - c. For the purposes of this paragraph, adequate notice shall include information on:
 - 1) the quality and quantity of effluent introduced into the POTW, and
 - 2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

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. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to use-disposal practice.

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. See Part I.D of this permit for any applicable sludge monitoring procedures. 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 \$25,000, 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. 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 DEQ 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, 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 incident of noncompliance affecting the environment 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) 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) 444-3080.
 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 Regional Administrator, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of 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 and the Director 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 \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two 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

1. 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. Sludge shall not be directly blended with or enter either the final plant discharge and/or waters of the United States.
2. Any sludges removed from the facility shall be disposed of in accordance with 40 CFR 503, 258 or other applicable rule.

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 ten (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.

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:

1. 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; or
2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give the Department notice of any planned changes at least 180 days prior to their implementation.

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 modifying, revoking 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 shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the 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 specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or 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 and the Director. 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, nor does it authorize any injury to private property.

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 additional assessment computed at the rates 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. **Sewage Sludge:** There have been substantial changes (or such changes are planned) in sludge use or disposal practices; applicable management practices or numerical limitations for pollutants in sludge have been promulgated which are more stringent than the requirements in this permit; and/or it has been determined that the permittee's sludge use or disposal practices do not comply with existing applicable state or federal regulations.

6. 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.

7. 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. **“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. **“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.
7. **“Average weekly limitation”** means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
8. **“BOD₅”** means the five-day measure of pollutant parameter biochemical oxygen demand.
9. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
10. **“CBOD₅”** means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.
11. **“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.
12. **“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.

13. **"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.
14. **"Department"** means the Montana Department of Environmental Quality (DEQ). Established by 2-15-3501, MCA.
15. **"Director"** means the Director of the Montana Department of Environmental Quality.
16. **"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.
17. **"EPA"** means the United States Environmental Protection Agency.
18. **"Federal Clean Water Act"** means the federal legislation at 33 USC 1251, *et seq.*
19. **"Geometric Mean"** means the value obtained by taking the Nth root of the product of the measured values.
20. **"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.
21. **"Indirect discharge"** means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Federal Clean Water Act.
22. **"Industrial User"** means a source of Indirect Discharge.
23. **"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.
24. **"Instantaneous Measurement"** for monitoring requirements, means a single reading, observation, or measurement.
25. **"Interference"** means a discharge which, alone or in conjunction with other contributing discharges
 - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - b. Therefore causes a violation of any requirement of the POTW's MPDES permit (including an increase in the magnitude or duration of a violation) or causes the prevention of sewage sludge use or disposal in compliance with the following statutes and regulations: Section 405 of the Clean Water Act;

40 CFR Part 503 - Standards for the Use and Disposal of Sewage Sludge; Resource Conservation and Recovery Act (RCRA); 40 CFR Part 258 - Criteria for Municipal Solid Waste Landfills; and/or any State regulations regarding the disposal of sewage sludge.

26. **“Maximum daily discharge limitation”** means the highest allowable daily discharge.
27. **“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(21))
28. **"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.
29. **"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.
30. **"Pass through"** means a discharge which exits the POTW into waters of the State of Montana in quantities or concentrations which, alone or in conjunction with other discharges, is a cause of a violation of any requirement of the POTW's MPDES permit (including an increase in the magnitude or duration of a violation).
31. **"POTW"** means a publicly owned treatment works.
32. **“Regional Administrator”** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
33. **"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.
34. **"Sewage Sludge"** means any solid, semi-solid or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

35. **“TIE”** means a toxicity identification evaluation.
36. **"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.
37. **“TRE”** means a toxicity reduction evaluation.
38. **"TSS"** means the pollutant parameter total suspended solids.
39. **"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.