Major POTW
Permit No.: MT0020001

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 Miles City

is authorized to discharge from its **domestic wastewater treatment plant**

located at **2100 Daly**

to receiving waters named the **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 **April 1, 2011.**

This permit and the authorization to discharge shall expire at midnight **March 31, 2016.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Jenny Chambers, Chief
Water Protection Bureau
Permitting & Compliance Division

Issuance Date: February 2, 2011

TABLE OF CONTENTS

Cover Sheet--Issuance and Expiration Dates

I. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS 3

A. DESCRIPTION OF DISCHARGE POINTS AND MIXING ZONE 3
B. EFFLUENT LIMITATIONS 4
C. MONITORING REQUIREMENTS 5
D. SPECIAL CONDITIONS 10
E. PRETREATMENT REQUIREMENTS 12
F. COMPLIANCE SCHEDULE 12

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS 14

A. REPRESENTATIVE SAMPLING 14
B. MONITORING PROCEDURES 14
C. PENALTIES FOR TAMPERING 14
D. REPORTING OF MONITORING RESULTS 14
E. COMPLIANCE SCHEDULES 15
F. ADDITIONAL MONITORING BY THE PERMITTEE 15
G. RECORDS CONTENTS 15
H. RETENTION OF RECORDS 15
I. TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING 15
J. OTHER NONCOMPLIANCE REPORTING 16
K. INSPECTION AND ENTRY 16

III. COMPLIANCE RESPONSIBILITIES 18

A. DUTY TO COMPLY 18
B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS 18
C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 18
D. DUTY TO MITIGATE 18
E. PROPER OPERATION AND MAINTENANCE 18
F. REMOVED SUBSTANCES 19
G. BYPASS OF TREATMENT FACILITIES 19
H. UPSET CONDITIONS 20

IV. GENERAL REQUIREMENTS 22

A. PLANNED CHANGES 22
B. ANTICIPATED NONCOMPLIANCE 22
C. PERMIT ACTIONS 22
D. DUTY TO REAPPLY 22
E. DUTY TO PROVIDE INFORMATION 22
F. OTHER INFORMATION 22
G. SIGNATORY REQUIREMENTS 23
H. PENALTIES FOR FALSIFICATION OF REPORTS 24
I. AVAILABILITY OF REPORTS 24
J. OIL AND HAZARDOUS SUBSTANCE LIABILITY 24
K. PROPERTY OR WATER RIGHTS 24
L. SEVERABILITY 24
M. TRANSFERS 24
N. FEES 25
O. REOPENER PROVISIONS 25

V. DEFINITIONS 27

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 discharge pipe emptying into Yellowstone River at 46° 25.833" latitude, 105° 49.854" longitude. **Mixing Zone:** None **Treatment Works**: Two oxidation ditches with rotating brush aerators and two clarifiers.

B. Interim and Final Effluent Limitations

Interim Effluent Limits – Outfall 001
(Effective immediately until midnight December 31, 2013)

Parameter	Units	Average Monthly Limit[1]	Average Weekly Limit[1]	Maximum Daily Limit[1]
Biochemical Oxygen Demand (BOD_5)	mg/L	30	45	--
	lb/day	495	743	--
BOD_5 Removal	%	85	--	--
Total Suspended Solids (TSS)	mg/L	30	45	--
	lb/day	495	743	--
TSS Removal	%	85	--	--
E. coli[2]	cfu/100 mL	81,900	163,800	--
Total Residual Chlorine (TRC)	mg/L	--	--	0.5
Oil and grease	mg/L	--	--	10

Footnotes:
NA – Not applicable
1. See Definition section at end of permit for explanation of terms.
2. Applies during the period April 1 through October 31.

pH: Effluent pH from Outfall 001 shall remain between 6.0 and 9.0 standard units (instantaneous minimum and instantaneous maximum) unless a variation is due to natural biological processes. For compliance purposes, any single analysis or measurement beyond this limitation shall be considered a violation of the conditions of this 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.

Final Effluent Limitations – Outfall 001
(Effective January 1, 2014)

Parameter	Units	Average Monthly Limit[1]	Average Weekly Limit[1]	Maximum Daily Limit [1]
Biochemical Oxygen Demand (BOD_5)	mg/L	30	45	--
	lb/day	495	743	--
BOD_5 Removal	%	85		--
Total Suspended Solids (TSS)	mg/L	30	45	--
	lb/day	495	743	--
TSS Removal	%	85		--
E. coli Bacteria[2]	cfu/100mL	126	252	--
E. coli Bacteria [3]	cfu/100mL	630	1260	--
Total Residual Chlorine (TRC) [4]	mg/L	0.011	--	0.019
Oil and grease	mg/L	--	--	10

Footnotes:
NA – Not applicable
1. See Definition section at end of permit for explanation of terms.
2. This limit applies during the period April 1 through October 31.
3. This limit applies during the period November 1 through March 31.
4. Sampling of the effluent with analytical results less than 0.1 mg/L TRC is considered in compliance with the TRC effluent limit. If chlorine is not used for disinfection TRC effluent limits do not apply.

pH: Effluent pH from Outfall 001 shall remain between 6.0 and 9.0 standard units (instantaneous minimum and instantaneous maximum) unless a variation is due to natural biological processes. For compliance purposes, any single analysis or measurement beyond this limitation shall be considered a violation of the conditions of this 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. Influent and Effluent Monitoring Requirements for Outfall 001

Laboratory analytical results must meet required reporting values (RRVs) in Circular DEQ-7 (August 2010).

1. Influent monitoring at the existing headworks will continue. Influent monitoring at the planned new headworks will occur after the building is constructed and monitoring equipment is installed.

2. Effluent monitoring will continue to occur after the chlorine contact basin before the discharge enters the pipe to the river.

3. Monitoring for nutrients will occur in the wastewater effluent stream before wastewater is piped to the nutrient pilot study.

Monitoring Requirements				
Parameter	Unit	Sample Location	Sample Frequency	Sample Type[1]
Flow	mgd	Influent [2]	1/Week	Instantaneous
	mgd	Effluent	Continuous	Recorder [3]
Biochemical Oxygen Demand (BOD_5)	mg/L	Influent	3/Week	Composite
	mg/L	Effluent	3/Week	Composite
	% Removal[4]	Effluent	1/Month	Calculated
	lbs/day	Effluent	1/Month	Calculated
Total Suspended Solids (TSS)	mg/L	Influent	3/Week	Composite
	mg/L	Effluent	3/Week	Composite
	% Removal[4]	Effluent	1/Month	Calculated
	lbs/day	Effluent	1/Month	Calculated
pH	s.u.	Effluent	Daily	Instantaneous
Temperature	°C	Effluent	Daily	Instantaneous
E. coli [5]	cfu/100 ml	Effluent	3/Week	Grab
Total Residual Chlorine [6]	mg/L	Effluent	Daily	Instantaneous
Oil sheen [7]	Presence	Effluent	Daily	Observation
Oil and Grease	mg/L	Effluent	1/Month	Grab
Total Ammonia, as N	mg/L	Effluent	1/Month	Composite
Nitrate + Nitrite, as N	mg/L	Effluent	1/Month	Composite
Kjeldahl Nitrogen, Total, as N	mg/L	Effluent	1/Month	Composite
Total Nitrogen, as N [8]	mg/L	Effluent	1/Month	Calculated
	lbs/day	Effluent	1/Month	Calculated
Total Phosphorus, as P	mg/L	Effluent	1/Month	Composite
	lbs/day	Effluent	1/Month	Calculated
Total Dissolved Solids (TDS)	mg/L	Effluent	2/Year	Composite
Dissolved Oxygen [9]	mg/L	Effluent	1/Quarter	Grab
Whole Effluent Toxicity	% Effluent	Effluent	1/Quarter	Composite

Footnotes
1. See Definition section at end of permit for explanation of terms.
2. Required after the new head works equipment is installed.
3 Requires recording device or totalizer; permittee must report daily maximum and daily average flow on DMR.
4. See narrative discussion in this section of permit for additional details.
5. Required April 1 through October 31 each year until 2013. Beginning January 1, 2014 monitoring required all year.
6. Required only if chlorine used for disinfection.
7. Use EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM) or equivalent. Required only when a visible sheen is observed.
8. Calculated as the sum of Nitrate + Nitrite (as N) and Total Kjeldahl Nitrogen concentrations.
9. Report quarterly average of daily process control samples.

Monitoring Requirements (Continued)				
Parameter	Unit	Sample Frequency	Sample Type[1]	RRV
Antimony, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	3
Arsenic, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	3
Beryllium, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	1
Cadmium, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	0.08
Chromium, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	1
Copper, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	1
Lead, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	0.5
Mercury, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	0.01
Nickel, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	10
Selenium, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	1
Silver, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	0.5
Thallium, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	0.2
Zinc, Total Recoverable[2]	µg/L	Semiannual [3]	Composite	10
Cyanide, Total	µg/L	Semiannual [3]	Grab	5
Phenols, Total	µg/L	Semiannual [3]	Grab	10
Hardness, Total (as $CaCO_3$)	mg/L	Semiannual [3]	Grab	10
Volatile Organic Pollutants[4]	µg/L	Semiannual [3,5]	Composite	[6]
Semi-Volatile, Acid Compounds[7]	µg/L	Semiannual [3,5]	Composite	[6]
Semi-Volatile, Base Neutral[7]	µg/L	Semiannual [3,5]	Composite	[6]

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Metals shall be analyzed as total recoverable, use EPA Method (Section) 4.1.4 [EPA 600/4-79-020, March 1983] or equivalent.
3. Samples must be collected beginning the first quarter after the effective date of the permit.
4. 40 CFR 122, Appendix J, Table 2, use EPA Method 1624 Revision B, or equivalent.
5. Sampling required only in third and fifth calendar years after the effective date of the permit. This information will not be entered on the DMR form; a copy of the analytical laboratory report must be attached to the DMR for the applicable reporting period.
6. See approved method for minimum level (ML).
7. 40 CFR 122, Appendix J, Table 2, use EPA Method 1625 Revision B, or equivalent.

Reporting Requirements

Load Calculations

In addition to reporting the concentration values, the monthly loads expressed in lbs/day must be calculated and reported for BOD_5, TSS, total phosphorus and total nitrogen. The monthly loads must be calculated using the average daily flow rate and daily average parameter concentration as shown in the following equations:

Load (lb/day) =

Parameter concentration (mg/l) x Effluent Flow Rate (**gpm**) x (0.012)

or

Parameter concentration (mg/l) x Effluent Flow Rate (**mgd**) x (8.34)

Percent (%) Removal

The percent removal shall be calculated using the following formula:

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

Where:

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

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

Whole Effluent Toxicity Testing – Acute Toxicity

Starting in the first quarter of 2010 the permittee shall, at least once each quarter, conduct an acute static replacement toxicity test on a composite sample of the effluent. Testing will employ two species per quarter and will consist of 5 effluent concentrations (100, 50, 25, 12.5, 6.25 percent effluent) and a control. Dilution water and the control shall consist of the receiving water. Samples shall be collected on a two day progression; i.e., if the first quarterly sample is on a Monday, the second quarter sample shall be on a Wednesday, etc. Saturdays, Sundays and Holidays will be skipped in the progression.

The static toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms, EPA-600/4-90/027 and

the "Region VIII EPA NPDES Acute Test Conditions-State Renewal Whole Effluent Toxicity". The permittee shall conduct an acute 48-hour static renewal toxicity test using *Ceriodaphnia dubia* and an acute 96-hour static renewal toxicity test using fathead minnows (*Pimephales promelas*) as the alternating species. The control of pH in the toxicity test utilizing CO_2 enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection.

Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. If more than 10 percent control mortality occurs, the test is considered invalid and shall be repeated until satisfactory control survival is achieved, unless a specific individual exception is granted by the Department. This exception may be granted if less than 10 percent mortality was observed at the dilutions containing high effluent concentrations.

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

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

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

D. Special Conditions

1. Sewage Sludge:

The use or disposal of sewage sludge must be in conformance with the Environmental Protection Agency (EPA) General Permit MTG650004 or an equivalent permit issued pursuant to 40 CFR 503. A notice of intent must be filed with the EPA and the Department in accordance with the timeframes and procedures identified in the applicable permit. All materials required by the

General Permit to be submitted to the Department shall be signed in accordance with Part IV.G and sent to the address provided in Part II.D of this permit.

The permittee shall not dispose of sewage sludge such that any portion thereof enters any state water, including ground water. The permittee shall notify the Department in writing 45 days prior to any change in sludge management at the facility.

2. Toxicity Reduction Evaluation / Toxicity Identification Evaluation:

Should acute toxicity be detected in the required resample, a TRE-TIE 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 TRE-TIE, or delays in the conduct of such tests, shall not be considered a justification for noncompliance with the whole effluent toxicity limits contained in Part I.B of this permit. A TRE plan needs to be submitted to the Department within 45 days after confirmation of the continuance of effluent toxicity (resample).

2. Algae Pilot Study

The City of Miles City and Montana Feed and Fuel (an independent contractor) will perform an innovative pilot study using algae to remove nutrients in wastewater from the wastewater treatment plant. The pilot study will be conducted in tanks located on city property or adjacent to the wastewater treatment plant. The City will pipe a small volume of wastewater from the wastewater treatment plant to the pilot study and increase the flows, depending upon the efficiency of the nutrient removal process, to test the capability of the pilot study system. A weir will be installed in the effluent channel to measure the volume of wastewater diverted to the pilot study. Wastewater will be diverted to the pilot plant and return to the wastewater treatment plant effluent stream before the effluent Parshall flume. Withdrawal and return piping to and from the pilot study will be located a sufficient distance upstream from the Parshall flume to not interfere with accurate flow monitoring of the effluent wastewater flow. After passing through the Parshall flume, wastewater from the pilot study and wastewater treatment plant will flow into the chlorine contact basin which will provide adequate mixing of the wastewater. As stated in Part I.C.2 of the permit "effluent monitoring will continue to occur after the chlorine contact basin before the discharge enters the pipe to the river".

All permit conditions will be in effect during the pilot study. Annual progress reports explaining progress made in evaluating the pilot study must be submitted to the Department before January 28 for each year of the permit.

E. Pretreatment Requirements

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 in Part I.E.2 of this rule apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other national pretreatment standards or any national, state or local pretreatment requirements.

2. In addition, 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 the department, 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. Publicly Owned Treatment Works. All POTWs must provide adequate notice to the Department 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 [40CFR 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.

F. Compliance Schedule

1. *E.coli* and TRC Effluent Limitations

The facility plans to install UV disinfection otherwise it will need to upgrade the existing chlorine disinfection system. The facility must provide disinfection by January 1, 2014 to meet final *E.* coli effluent limits. If the facility repairs the existing chlorine disinfection system it must also meet total residual chlorine effluent limits by January 1, 2014. Beginning in 2011 the facility must provide annual reports by December 31 of each year describing progress in planning, designing, funding and constructing or repairing the disinfection system until the system is operating.

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.C 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

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

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

(b) U.S. Environmental
Protection Agency
10 West 15th Street
Suite 3200
Helena, Montana 59626
Phone: (406) 447-5000

E. Compliance Schedules
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

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

G. Records Contents
Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The initials or name(s) of the individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed;

4. The time analyses were initiated;

5. The initials or name(s) of individual(s) who performed the analyses;

6. References and written procedures, when available, for the analytical techniques or methods used; and

7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. Retention of Records
The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious 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) 841-3911. The following examples are considered serious incidents:

a. Any noncompliance which may seriously endanger health or the environment;

b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities"); or

c. Any upset which exceeds any effluent limitation in the permit (See Part III.H of this permit, "Upset Conditions").

2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080.

4. Reports shall be submitted to the addresses in Part II.D of this permit, "Reporting of Monitoring Results".

J. Other Noncompliance Reporting

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D of this permit are submitted. The reports shall contain the information listed in Part II.I.2 of this permit.

K. Inspection and Entry

The permittee shall allow the head of the Department or the 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. EPA and MDEQ shall be notified at least 180 days prior to such disposal taking place.

3. The permittee shall provide certification that all applicable provisions of 40 CFR Parts 503 and 258 have been met for the land application or landfill disposal of sewage sludge. Certification shall be submitted annually with the sludge reporting form and must contain the following statement:

> "I certify under penalty of law, that all of the applicable provisions of 40 CFR Part (503/258) have been met when municipal sewage sludge is (beneficially used/disposed of at a landfill). This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that 40 CFR Part (503/258) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

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 that $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 or Water Rights
The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability
The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers
This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;

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

4. Required annual and application fees have been paid.

N. Fees

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

1. Impose an additional assessment consisting of 15% of the fee plus interest on the required fee computed at the rate established under 15-31-510(3), MCA, or

2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

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

1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

3. TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.

4. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

5. 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. **"BOD_5"** 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. **"$CBOD_5$"** means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.

11. **"Composite samples"** shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

    a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,

d. Continuous collection of sample, with sample collection rate proportional to flow rate.

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 (MDEQ). 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 other wise specified in the permit. (ARM 17.30.702(22))

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.