

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.*,

Sidney Sugars Incorporated

is authorized to discharge from its **Sugar Beet Processing Facility**

located at **35140 County Road 125, Sidney, MT in Richland County**

to receiving waters named, **the Yellowstone River, and Class I and II ground water**

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, **{5 years after effective date}**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

DRAFT

Jon Kenning, Bureau Chief
Water Protection Bureau
Water Quality Division

Issuance Date: **DRAFT**_____

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I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zone

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

<u>Outfall</u>	<u>Description</u>
001	<p>Location: At the end of the pipe, at 47°43'49.44"N, 104°05'47.27"W, discharging from the Section 25 Pond into the Yellowstone River through a dedicated effluent ditch.</p> <p>Mixing Zone: None.</p> <p>Treatment Works: Clarification, biological activity, and settling.</p>
002	<p>Location: Infiltration through ground water from the Section 25 pond to the Yellowstone River, with the mid-point at 47°43'23" N, 104°5'46.5" W.</p> <p>Mixing Zone: None.</p> <p>Treatment Works: Clarification, biological activity, and settling.</p>
003	<p>Location: Infiltration from various unlined wastewater factory ponds, discharging into Class II ground water, 47°42'58.6"N, 104°07'26.7"W.</p> <p>Mixing Zone: None.</p> <p>Treatment Works: Clarification, biological activity, and settling.</p>

B. Effluent Limits

1. Outfall 001

Effective immediately and lasting the duration of the permit, the following limits must be met at the Section 25 Pond discharge pipe:

Table 1: Final Effluent Limits – Outfall 001			
Parameter	Units	Effluent Limitations	
		Maximum Daily Limit	Average Monthly Limit
pH	s.u.	Within the range 6.0 to 9.0	
Temperature	° F	90	--
Fecal Coliform Bacteria	MPN/100 mL	400	--
<i>E coli</i> Bacteria - summer ^(1,2)	#org/100 mL	--	126
<i>E coli</i> Bacteria - winter ^(1,2)	#org/100 mL	--	630
Oil & Grease	mg/L	10	--
Footnotes: (1) <i>E.coli</i> bacteria monthly standard is based on the geometric mean. (2) Summer is defined as April 1 through October 31, and winter is defined as November 1 through March 31.			

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

There shall be no acute toxicity in the effluent.

2. Outfall 002

Effective immediately and lasting the duration of the permit the following limits must be met within the Section 25 Pond:

Table 2: Final Effluent Limits – Outfall 002			
Parameter	Units	Effluent Limitations	
		Maximum Daily Limit	Average Monthly Limit
pH	s.u.	Within the range 6.0 to 9.0	
Temperature	° F	90	--
Fecal Coliform Bacteria	MPN/100 mL	400	--
<i>E coli</i> Bacteria - summer ^(1,2)	#org/100 mL	--	126
<i>E coli</i> Bacteria - winter ^(1,2)	#org/100 mL	--	630
Footnotes: (1) <i>E.coli</i> bacteria monthly standard is based on the geometric mean. (2) Summer is defined as April 1 through October 31, and winter is defined as November 1 through March 31.			

3. Sum of Outfalls 001 and 002

Effective immediately and lasting through the duration of the permit, the following effluent limits must be met as the sum of the loads from Outfalls 001 and 002:

Table 3: Final Effluent Limits – SUM Outfalls 001 + 002			
Parameter	Units	Effluent Limitations	
		Maximum Daily Limit	Average Monthly Limit
5-Day Biochemical Oxygen Demand	lb/day	5,013	3,342
Total Suspended Solids	lb/day	5,013	3,342
Total Nitrogen (TN) ⁽¹⁾	lb/day	--	378
Total Phosphorus (TP) ⁽¹⁾	lb/day	--	24
Footnotes:			
(1) The load limits for TN and TP are effective August 1 st through October 31 st .			

C. Monitoring Requirements

At a minimum, upon the effective date of this permit, Sidney Sugars, Inc. (SSI) shall monitor the following constituents at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharges. If no discharge occurs during the entire monitoring period, it shall be stated on the electronic Discharge Monitoring Report (NetDMR) Form that no discharge or overflow occurred.

Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR 136. Unless SSI requests and DEQ agrees to another reporting level in writing, data supplied for each parameter must either have a detection or meet the Required Reporting Value (RRV) in Circular DEQ-7 as provided below.

1. Effluent

Self-monitoring of effluent shall be conducted at the following locations, unless another location is requested and approved by DEQ in writing:

- Outfall 001 – at the end-of-pipe as water is pumped into the effluent ditch;
- Outfall 002 – a composite of at least four aliquots taken from the Section 25 Pond. One of the aliquots can be from Outfall 001 or land application; at least three aliquots must be from representative depths within different quadrants of the pond as proposed by SSI and agreed to by DEQ, in writing (see Special Conditions);
- AFP – prior to entering the 1.2-mile pipe to the Section 25 Pond; and
- INTL – end of pipe prior to entering the Section 25 Pond.

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

a. Outfall 001

At a minimum, the following constituents shall be monitored at the frequencies and with the types of measurements indicated, during any periods with discharge from Outfall 001 (see **Table 4**):

Table 4: Outfall 001 Monitoring Requirements

Parameter <i>TR = Total Recoverable</i>	Unit	Minimum Monitoring Frequency	Sample Type ⁽¹⁾	RRV	Reporting Requirement
Discharge Flow	mgd	1/Day ⁽²⁾	Instantaneous	--	Daily Max & Mo Avg
	MG/Month	1/Month	Calculated	--	Value
	# Days	1/Month	Calculated	0.5	Value
5-Day Biochemical Oxygen Demand	mg/L	1/Week	Composite	4	Daily Max & Mo Avg
	lb/day	1/Month	Calculated	--	Monthly Avg ⁽³⁾
Total Suspended Solids	mg/L	1/Week	Composite	10	Daily Max & Mo Avg
	lb/day	1/Month	Calculated	--	Monthly Avg ⁽³⁾
pH	s.u.	2/Week	Instantaneous	0.1	Daily Min and Daily Max
Temperature	° F	2/Week	Instantaneous	0.1	Daily Min and Daily Max
Fecal Coliform	MPN/100 mL	1/Week	Grab	1	Daily Max
<i>E. coli</i> bacteria	No. org/ 100 mL	1/Week	Grab	1	Daily Max and Geo Mean
Oil & Grease	Y/N	2/Week	Visual	--	Y/N
	mg/L	1/Year ⁽⁴⁾	Grab	1	Value
Total Ammonia as N	mg/L	1/Month	Composite	0.07	Value
Total Kjeldahl Nitrogen (TKN)	mg/L	2/Month ⁽⁵⁾	Composite	--	Monthly Avg
Nitrate + Nitrite as N (N+N)	mg/L	2/Month ⁽⁵⁾	Composite	0.02	Monthly Avg
	mg/L	1/Quarter			Value
Total Nitrogen as N (TN)	mg/L	2/Month ⁽⁵⁾	Calculate ⁽⁶⁾	--	Monthly Avg
	lb/day	1/Month ⁽⁵⁾	Calculated	--	Monthly Avg ⁽³⁾
Total Phosphorus as P (TP)	mg/L	2/Month ⁽⁵⁾	Composite	--	Monthly Avg
	lb/day	1/Month ⁽⁵⁾	Calculated	--	Monthly Avg ⁽³⁾
Sulfate	mg/L	1/Quarter	Composite	10	Value
Fluoride	mg/L	1/Quarter	Composite	0.2	Value
Iron, TR	mg/L	1/Quarter	Composite	0.02	Value
Arsenic, TR	µg/L	1/Quarter	Composite	1	Value
Lead, TR	µg/L	1/Quarter	Composite	0.3	Value
Mercury, TR	µg/L	1/Quarter	Composite	0.005	Value
Selenium, TR	µg/L	1/Quarter	Composite	1	Value
Whole Effluent Toxicity (WET), Acute ⁽⁷⁾	% Effluent	1/Quarter	Grab	NA	Value

Footnotes:

- (1) See Definition section at end of permit for explanation of terms.
- (2) See Special Conditions for flow monitoring requirements. Flow must be measured +/- 10% of actual discharge rates.
- (3) The monthly averages are calculated by averaging the loads only on days with discharge.
- (4) SSI shall take one grab sample per year, plus any time oil & grease is visually detected.
- (5) Nutrients (TKN, N+N, TN, and TP) are to be sampled twice per month during the nutrient growing season of August 1st to October 31st, during periods of discharge. N+N monitoring is reduced to quarterly during the non-growing season.
- (6) Total Nitrogen calculated as the sum of TKN plus N+N.
- (7) WET testing of two-species quarterly until SSI passes four consecutive tests, at which case SSI can request to reduce WET testing to two-species semi-annually. See narrative discussion of permit for additional details.

b. Outfall 002

At a minimum, the following constituents shall be monitored at the frequencies and with the types of measurements indicated, during any periods with discharge from Outfall 002 (i.e. any periods with wastewater in the pond) (see **Table 5**):

Table 5: Outfall 002 Monitoring Requirements

Parameter <i>TR = Total Recoverable</i>	Unit	Min Monitoring Frequency	Sample Type ⁽¹⁾	RRV	Reporting Requirement ⁽²⁾
Discharge Flow ⁽²⁾	Staff Gauge (ft)	1/Week	Instantaneous	0.1	Monthly Avg
	Wetted Acres	1/Week	Calculated ⁽³⁾	--	Monthly Avg
	mgd	1/Month	Calculated ⁽³⁾	--	Monthly Avg
5-Day Biochemical Oxygen Demand	mg/L	1/Week	Aliquots	4	Monthly Avg
	lb/day	1/Month	Calculated ⁽³⁾	--	Monthly Avg
Total Suspended Solids	mg/L	1/Week	Aliquots	10	Monthly Avg
	lb/day	1/Month	Calculated ⁽³⁾	--	Monthly Avg
pH	s.u.	1/Week	Instantaneous	0.1	Daily Min & Daily Max
Temperature	° F	1/Month	Instantaneous	0.1	Daily Max
Fecal Coliform	MPN/100 mL	1/Week	Aliquots	1	Daily Max
<i>E. coli</i> bacteria	No. org/ 100 mL	1/Week	Aliquots	1	Daily Max and Geometric Mean
Oil & Grease	Y/N	1/Week	Visual	--	Y/N
	mg/L	⁽⁴⁾	Aliquots	1	Value
Total Ammonia as N	mg/L	1/Month	Aliquots	0.07	Value
Total Kjeldahl Nitrogen (TKN)	mg/L	2/Month ⁽⁵⁾	Aliquots	--	Monthly Avg
Nitrate + Nitrite as N (N+N)	mg/L	2/Month ⁽⁵⁾	Aliquots	0.02	Monthly Avg
	mg/L	1/Quarter			Value
Total Nitrogen as N (TN)	mg/L	2/Month ⁽⁵⁾	Calculated ⁽⁶⁾	--	Monthly Avg
	lb/day	1/Month ⁽⁵⁾	Calculated ⁽³⁾	--	Monthly Avg
Total Phosphorus as P (TP)	mg/L	2/Month ⁽⁵⁾	Aliquots	--	Monthly Avg
	lb/day	1/Month ⁽⁵⁾	Calculated ⁽³⁾	--	Monthly Avg
Sulfate	mg/L	1/Quarter	Composite	10	Value
Fluoride	mg/L	1/Quarter	Composite	0.2	Value
Iron, TR	mg/L	1/Quarter	Aliquots	0.02	Value
Arsenic, TR	µg/L	1/Quarter	Aliquots	1	Value
Lead, TR	µg/L	1/Quarter	Aliquots	0.3	Value
Mercury, TR	µg/L	1/Quarter	Aliquots	0.005	Value
Selenium, TR	µg/L	1/Quarter	Aliquots	1	Value

Footnotes:

- (1) See Definition section at end of permit for explanation of terms. "Aliquots" are samples taken from at least four pond locations (including up to one from either Outfall 001 or land application) per the Section 25 Pond Monitoring Program that SSI is required to develop as a Special Condition. The four aliquots may be combined and analyzed and reported together or analyzed separately and averaged and reported.
- (2) Monthly averages are calculated by averaging the loads only on days with discharge (i.e. standing water).
- (3) SSI shall convert the weekly staff gauge reading to wetted surface area (acres) and convert to the discharge flow rate based on the equation $\text{mgd} = 0.12''/\text{day} \times (\text{acres} \times 0.027154) \times 8.34$. The calculated discharge rate will be used to calculate loads ($\text{lb/day} = \text{mg/L} \times \text{mgd} \times 8.34$). SSI shall take a grab sample any time oil & grease is visually detected.
- (4) Nutrients are to be sampled twice per month during the growing season of August 1st to October 31st. N+N monitoring is reduced to quarterly during the non-growing seasons.
- (5) Total Nitrogen calculated as the sum of TKN plus N+N.

c. Sum of Outfalls 001 & 002

At a minimum, the following constituents shall be reported at the frequencies and with the types of measurements indicated, based on the sum of the loads calculated each month at Outfall 001 and Outfall 002 (see **Table 6**).

Table 6: SUM Outfalls 001 + 002 Monitoring Requirements				
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	Reporting Requirement ⁽¹⁾
5-Day Biochemical Oxygen Demand (BOD ₅)	lb/day	1/Month	Calculated	Max Daily ⁽²⁾ and Monthly Avg
Total Suspended Solids (TSS)	lb/day	1/Month	Calculated	Max Daily ⁽²⁾ and Monthly Avg
Total Nitrogen as N (TN)	lb/day	1/Month ⁽³⁾	Calculated	Monthly Avg
Total Phosphorus as P (TP)	lb/day	1/Month ⁽³⁾	Calculated	Monthly Avg
Footnote: (1) The monthly averages are calculated summing the average loads for each outfall using only days with discharge. (2) Maximum daily loads for BOD ₅ and TSS = the maximum daily discharge from Outfall 001 + monthly average discharge from Outfall 002. (3) TN and TP monitoring is required only during the Yellowstone River nutrient growing season of August 1 st to October 31 st .				

d. Monitoring Effluent from AFP

Beginning { **one year from the effective date of this permit** }, SSI shall monitor the wastewater as it leaves the AFP and enters the 1.2-mile gravity-fed pipe to the Section 25 Pond, as follows (see **Table 7**):

Table 7: AFP Monitoring Requirements					
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	RRV	Reporting Requirement ⁽¹⁾
Discharge Flow	mgd	1/Week ⁽²⁾	Instantaneous	--	Daily Max & Mo Avg
	MG/Month	1/Month	Calculated	--	Value
	# Days	1/Month	Calculated	0.5	Value
Footnotes: (1) Monthly average is calculated by averaging only on days with discharge. (2) Requires a weir, flume, or flow meter. Flow must be measured +/- 10% of actual discharge rates.					

e. INTL

At a minimum, SSI shall monitor the partially treated wastewater as it enters the Section 25 Pond at INTL, as follows (see **Table 8**):

Table 8: INTL Monitoring Requirements					
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	RRV	Reporting Requirement ⁽¹⁾
Discharge Flow	mgd	1/Week	Instantaneous ⁽²⁾	--	Daily Max & Mo Avg
	MG/Month	1/Month	Calculated	--	Value
	# Days	1/Month	Calculated	0.5	Value
Footnotes:					
(1) Monthly average is calculated by averaging only on days with discharge.					
(2) Flow must be measured +/- 10% of actual discharge rates.					

2. Monitoring Wells

a. Upgradient Monitoring Wells

At a minimum, the following constituents shall be monitored at upgradient monitoring wells for the Section 25 Pond (wells P-1 and P-5) and the Factory Ponds (well MW-7) and reported on the NetDMR at the frequencies indicated below (see **Table 9**). If SSI wants to change the ambient monitoring locations, they must submit a proposal to DEQ and receive authorization, in writing:

Table 9: Ambient Monitoring Wells P-1, P-5, and MW-7					
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	RRV	Reporting Requirement
Static Water Level	ft amsl	1/Quarter	Instantaneous	--	Avg Value
Specific Conductivity	µS/cm	1/Quarter	Instantaneous	--	Avg Value
Temperature	° F	1/Quarter	Instantaneous	0.1	Avg Value
pH	s.u.	1/Quarter	Instantaneous	0.1	Avg Value
Iron, total recoverable	mg/L	1/Quarter	Grab	0.02	Avg Value
Arsenic, total recoverable	µg/L	1/Quarter	Grab	1	Avg Value
Ammonia, Total as N	mg/L	1/Quarter	Grab	0.07	Avg Value
Nitrate + Nitrite as N	mg/L	1/Quarter	Grab	0.02	Avg Value

b. Section 25 Pond – Wells P-2, P-3, and P-4

At a minimum, the following constituents shall be monitored at Section 25 Pond downgradient wells P-2, P-3, P-4 and reported on the NetDMR at the frequencies indicated below (see **Table 10**):

Table 10: Downgradient of Section 25 Pond (Wells P-2, P-3, and P-4)					
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	RRV	Reporting Requirement ⁽¹⁾
Static Water Level	ft amsl	1/Quarter	Instantaneous	--	Value
Iron, total recoverable	mg/L	1/Quarter	Grab	0.02	Value
Arsenic, total recoverable	µg/L	1/Quarter	Grab	1	Value
Ammonia, total as N	mg/L	1/Quarter	Grab	0.07	Value
Nitrate + Nitrite as N	mg/L	1/Quarter	Grab	0.02	Value
Footnotes:					
(1) Grab samples from the three wells shall be individually analyzed and reported.					

c. Outfall 003 Downgradient Monitoring Wells

At a minimum, the following constituents shall be monitored at downgradient monitoring wells for the Factory Ponds (MW-2R, MW-3, MW-4, MW-5, and MW-14) and reported on the NetDMR at the frequencies indicated below (see **Table 11**):

Table 11: Factory Ponds (Outfall 003) Downgradient Monitoring Wells					
Parameter	Unit	Minimum Monitoring Frequency	Sample Type	RRV	Reporting Requirement
Static Water Level	ft amsl	1/Quarter	Instantaneous	--	Value
Specific Conductivity	µS/cm	1/Quarter	Instantaneous	--	Avg Value
Temperature	° F	1/Quarter	Instantaneous	0.1	Avg Value
pH	s.u.	1/Quarter	Instantaneous	0.1	Avg Value
Sulfate	mg/L	1/Quarter	Composite	10	Value
Fluoride	mg/L	1/Quarter	Composite	0.2	Value
Iron, total recoverable	mg/L	1/Quarter	Grab	0.02	Value
Arsenic, total recoverable	µg/L	1/Quarter	Grab	1	Value
Ammonia, Total as N	mg/L	1/Quarter	Grab	0.07	Value
Total Kjeldahl Nitrogen (TKN)	mg/L	1/Quarter	Grab	--	Value
Nitrate + Nitrite as N (N+N)	mg/L	1/Quarter	Grab	0.02	Value
Total Nitrogen as N	mg/L	1/Quarter	Calculated ⁽¹⁾	--	Value
Total Phosphorus as P	mg/L	1/Quarter	Composite	--	Value
Footnote:					
(1) Total Nitrogen is the sum of TKN plus N+N.					

3. Reporting Requirements

Composite

Composite samples shall be flow proportioned. A composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. 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 described in the Definitions section of this permit.

Aliquots

Aliquots are grab samples as identified in the SSI Section 25 Pond sampling plan, that are either combined as one sample for analysis or are analyzed separately and averaged.

Load Calculations for Direct Discharge

For direct discharges to surface water, effluent limits 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 relevant definitions in Part V of this permit, of “Arithmetic Mean” or “Arithmetic Average;” “Average Monthly Limit;” “Daily Discharge;” and “Daily Maximum Limit.”

The load for a given parameter shall be calculated using the following equation:

- $\text{Load (lb/day)} = \text{Concentration (mg/L)} \times \text{Discharge Flow Rate (mgd)} \times 8.34$

The discharge flow rate is based on the recorded flow on the day that the sample was taken. The average monthly load shall be calculated based on the average of all daily loads calculated for the calendar month.

Load Calculations for Ground Water Infiltration

For discharge to surface water through ground water, effluent limits 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 relevant definitions in Part V of this permit, of “Arithmetic Mean” or “Arithmetic Average;” “Average Monthly Limit;” as well as the above definition of composited aliquot. Because infiltration does not vary significantly day-to-day, the appropriate minimum monitoring period is weekly.

- $\text{Weekly load (lb/day)} = \text{Composited aliquot concentration (mg/L)} \times \text{Discharge Flow Rate (mgd)} \times 8.34$

The discharge flow rate is based on the recorded pond level height on the day that the sample was taken, converted into infiltration rate. The average monthly load shall be calculated based on the average of all weekly loads calculated for the calendar month.

4. Whole Effluent Toxicity Monitoring – 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. Testing will employ two species per quarter 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

(moderately hard, or a laboratory reconstituted water that matches the hardness of the receiving water, may be used in accordance with WET methods).

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 acute toxicity tests shall be conducted in general accordance with the procedures set out in *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 a 48-hour static renewal acute toxicity test using *Ceriodaphnia dubia* and a 96-hour static renewal acute toxicity test using *Pimephales promelas* (fathead minnow). The control of pH in the toxicity test utilizing CO₂ enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection.

Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. If more than 10 percent control mortality occurs, the test is considered invalid and shall be repeated until satisfactory control survival is achieved, unless a specific individual exception is granted by 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, 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 Reduction Evaluation (TRE) /Toxicity Identification Evaluation (TIE).

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

The quarterly results from the laboratory shall be reported electronically via NetDMR along with the Discharge Monitoring Report submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the reporting quarter ending March 31st shall be reported with the March DMR due April 28th with the remaining quarterly reports submitted with the June, September, and December DMRs, respectively). 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 quarterly tests indicate no acute toxicity, the permittee may request a reduction to semi-annual acute toxicity testing on two species, in writing. 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 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.

A TRE plan needs to be submitted to DEQ within 45 days after confirmation of the continuance of effluent toxicity (resample). 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.

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.

2. Storm Water

SSI shall evaluate the impact from all indirect storm water runoff, and by no later than **{ three years from the effective date of this permit }**, SSI shall submit findings from the evaluation to DEQ that includes:

- i) A figure to provide a clear depiction of all open piles of beet storage, beet by-products, and any other supplemental material such as coal and coal ash piles that may impact indirect storm water runoff into the Factory Ponds system.
- ii) An estimate for the volume of indirect storm water runoff that reaches the Factory Ponds and basis for the estimate.
- iii) Storm water quality analysis from at least four storm (or snow melt) events collected at each indirect storm water outfall for the following parameters, at a minimum:
 - pH
 - TSS
 - TN
 - TP
 - BOD₅
 - Ammonia
 - *E. coli* bacteria

A sample must be taken within the first 30 minutes of flow and additional samples may be taken as desired.

If warranted, a description of any Best Management Practices implemented or planned to reduce pollutant loading from storm water.

3. Water Balance

Since compliance with load limits depend on accurate flow accounting, DEQ is requiring that SSI perform the following:

a. Flow Meters

SSI shall include the technical design details, calibration methods, and monitoring and recordkeeping procedures for flow meters or structures (such as weir or Parshall Flume) as part of their O&M Manual, at the following locations as a minimum. By **{one year from the effective date of this permit}**, SSI shall:

- *Water Input*: identify location(s) to monitor plant water use, install operable flow meter(s) or structure(s) at these locations, calibrate, and initiate monitoring and recordkeeping,
- *AFP discharge into 1.2-mile pipe*: install a means of measuring the effluent flow, such as a flow meter, flume, or weir with measurement capabilities, calibrate, and initiate monitoring & recordkeeping,
- *INTL meter for discharge out of 1.2-mile pipe*: calibrate the flow meter,
- *Outfall 001*: install a means of measuring the effluent flow, such as a flow meter, flume, or weir with measurement capabilities in accordance with DEQ design standards, including a recording device or totalizer; calibrate; and initiate monitoring and recordkeeping, and
- *Land Application*: calibrate the flow meter.

SSI shall check calibration of the measurement devices to ensure the flow is within 10% of the metered rate at least annually.

SSI shall submit a copy of the relevant parts of the O&M Manual and the results of the calibrations to DEQ within 14 days of the due date.

b. Flow Balance

By **{18 months from the effective date of this permit}**, SSI shall:

- Submit comparisons of the daily discharge from the AFP into the 1.2-mile pipe, and the inflow at INTL out of the same pipe, for the previous quarter. SSI shall continue to submit comparisons on a quarterly basis until they request to cease this monitoring, and DEQ agrees in writing.

By **{three years from the effective date of this permit}**, SSI shall:

- Submit an annual flow balance for the previous calendar year for the Section 25 Pond, including all inputs and outputs either measured (including inflow from INTL, Outfall 001, and Land Application and volume change), or calculated (evaporation and precipitation). The difference will be attributed to ground water infiltration or explained.

By **{four years from the effective date of this permit}**, SSI shall:

- Submit a facility-wide annual flow balance for the previous calendar year starting with water inputs from Factory Lake and beets through the Factory Ponds to the ARP/AFP and to the Section 25 Pond. The balance will include references to the sources of information for any estimated (i.e. not monitored or measured) water inputs or outputs. The ground water losses for the Factory Ponds and ditch will be based on the results of the fate and transport study (see Special Condition 5, below). SSI shall continue to submit the annual flow balance until they request to cease, and DEQ agrees in writing

4. Outfall 002 – Section 25 Sampling Plan

SSI shall develop and submit a sampling plan for Outfall 002 (the Section 25 Pond infiltration) no later than **{one month from the effective date of this permit}**. The sampling plan shall include the quadrants, depth, and sampling methods for obtaining four representative samples for each parameter (“aliquots”). SSI shall follow the sampling plan unless changes are proposed, and DEQ approves the changes, in writing.

5. Outfall 003 – Ground Water Discharge from Factory Ponds

SSI is required to provide a comprehensive fate & transport study by **{three years from the effective date of this permit}**. The study shall include:

- *Quantify and qualify the infiltration from the Factory Ponds.*

SSI shall quantify the infiltration rate from each factory pond, including the ditch, monthly. This includes supporting information such as each ponds’ wetted surface area, pond lining, and underlying soil type. If a pond (or ditch) is unlined, SSI shall provide plans and schedules for a seepage study, and conduct the seepage study by **{within four years of the effective date of this permit}**.

Qualification of the infiltrate should include average pond concentrations for each parameter of concern, monthly.

- *Identify the ground water pathway and mixing zone boundary for all pollutants monitored, including those in **Table 11**.*

If SSI wishes to request a ground water mixing zone, the request must clearly delineate the proposed boundary and provide sufficient information to defend it.

This includes specifying the type of ground water mixing zone requested as follows:

- a standard ground water mixing zone (ARM 17.30.517) including, at a minimum, demonstration that the requested mixing zone will comply with the requirements of ARM 17.30.508, or
- source-specific ground water mixing zone (ARM 17.30.518), including, at a minimum, demonstration that the requested mixing zone will comply with the requirements of ARM 17.30.506 and .508 and the provisions of 75-5-303, MCA.

6. Land Application – Farm Management Plan

SSI must maintain and follow their Farm Management Plan (FMP). At least once every five years, SSI shall review and update the FMP, as necessary to maintain soil health and ensure that wastewater is applied at rates optimal for agronomic uptake of nutrients. The date of the review and signatures of the reviewers shall be included.

In addition:

- To protect public health SSI shall delineate a 200-foot buffer zone that restricts public access to the land application sites. If there is no physical restriction, then signs must be posted every 250 feet. Signs should read “No Trespassing – Irrigated with Reclaimed Wastewater” or an approved equivalent.
- SSI must document how carryover of treated wastewater effluent outside the buffer zone will be eliminated, including shutting down the land application if the wind velocity approaches 25 mph. The use of end guns for irrigation is prohibited.
- SSI must document how they will prevent runoff into ditches or other surface waters, including by shutting down the land application during significant precipitation or snow melt.

Confirmation that the FMP was reviewed and is up to date, including implementation of the above requirements, must be submitted to DEQ within **{180-days from the effective date of this permit}**. SSI must keep the current FMP available on-site.

7. Annual Report

SSI shall submit an annual report to DEQ no later than January 28th, that summarizes the progress made on each of the above Special Conditions for the previous year and the actions planned for the upcoming year.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

B. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

C. Penalties for Tampering

The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$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. Whole effluent toxicity (biomonitoring) results must be reported with copies of the laboratory analysis report on forms from the most recent version of EPA Region VIII's "Guidance for Whole Effluent Reporting." If no discharge occurs during the reporting period, "No Discharge" must be reported within the respective NetDMR submittal. All other reports required herein, must be signed and certified in accordance with Part IV.G 'Signatory Requirements' of this permit and submitted to DEQ at the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

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 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 DEQ at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious incidents of noncompliance as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-5546 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:
 - a. Any noncompliance which may seriously endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities"); or
 - c. Any upset which exceeds any effluent limitation in the permit (see Part III.H of this permit, "Upset Conditions").

2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. a description of the noncompliance and its cause;
 - b. the period of noncompliance, including exact dates and times;
 - c. the estimated time noncompliance is expected to continue if it has not been corrected; and
 - d. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-5546.
4. Reports shall be submitted to the addresses in Part II.D of this permit, "Reporting of Monitoring Results."

J. Other Noncompliance Reporting

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

K. Inspection and Entry

The permittee shall allow the head of DEQ or the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give DEQ advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine of not more than \$25,000 per day of violation, or by imprisonment for not more than two years, or both, for subsequent convictions. MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "Upset Conditions," nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances

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

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2 and III.G.3 of this permit.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I of this permit, "Twenty-four Hour Reporting."
3. Prohibition of bypass:
 - a. Bypass is prohibited and DEQ 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. DEQ may approve an anticipated bypass, after considering its adverse effects, if DEQ determines that it will meet the three conditions listed above in Part III.G.3.a of this permit.

H. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset,

and before an action for noncompliance, is final administrative action subject to judicial review (i.e. Permittees will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limitations).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred, and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.I of this permit, "Twenty-four Hour Notice of Noncompliance Reporting;" and
 - d. The permittee complied with any remedial measures required under Part III.D of this permit, "Duty to Mitigate."
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances

Notification shall be provided to DEQ as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 µg/L);
 - b. Two hundred micrograms per liter (200 µg /L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg /L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d. The level established by DEQ in accordance with 40 CFR 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - a. Five hundred micrograms per liter (500 µg /L);
 - b. One milligram per liter (1 mg/L) for antimony;
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d. The level established by DEQ in accordance with 40 CFR 122.44(f).

IV. GENERAL REQUIREMENTS

A. Planned Changes

The permittee shall give notice to DEQ as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.

B. Anticipated Noncompliance

The permittee shall give advance notice to DEQ 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 DEQ, within a reasonable time, any information which DEQ may request to determine whether cause exists for revoking, modifying and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to DEQ, 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 DEQ, 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 DEQ or the EPA shall be signed and certified.

1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by DEQ 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 DEQ; and
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)
3. Changes to authorization. If an authorization under Part IV.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2 of this permit must be submitted to DEQ 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 DEQ. 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 privilege.

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 DEQ 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. DEQ 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, DEQ may:

1. Impose an additional fee assessment computed at the rate established under ARM 17.30.201; and,
2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. DEQ 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 subsection. 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, DEQ 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 DEQ and/or EPA for incorporation in this permit.
4. **Water Quality Management Plan:** A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.
5. **Toxic Pollutants:** A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.
6. **Toxicity Limitation:** Change in the whole effluent protocol, or any other conditions related to the control of toxicants have taken place, or if one or more of the following events have occurred:

- a. Toxicity was detected late in the life of the permit near or past the deadline for compliance.
- b. The TRE/TIE results indicated that compliance with the toxic limits will require an implementation schedule past the date for compliance.
- c. The TRE/TIE results indicated that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits.
- d. Following the implementation of numerical controls on toxicants, a modified whole effluent protocol is needed to compensate for those toxicants that are controlled numerically.
- e. The TRE/TIE revealed other unique conditions or characteristics which, in the opinion of DEQ, 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 at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.
4. **“Arithmetic Mean” or “Arithmetic Average”** for any set of related values means the summation of the individual values divided by the number of individual values.
5. **“Average Monthly Limit”** means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
6. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
7. **“Chronic Toxicity”** means when the survival, growth, or reproduction, as applicable, for either test species, at the effluent dilution(s) designated in this permit is significantly less (at the 95 percent confidence level) than that observed for the control specimens.
8. **“Composite samples”** shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every “X” gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
9. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limits expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day.

For pollutants with limits expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

10. **"Daily Maximum Limit"** means the maximum allowable discharge of a pollutant during a calendar day. When expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. When expressed as a concentration, it is the arithmetic average of all measurements taken that day.
11. **"Department"** or **"DEQ"** means the Montana Department of Environmental Quality (DEQ). Established by 2-15-3501, MCA.
12. **"Director"** means the Director of the Montana DEQ.
13. **"Discharge"** means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
14. **"EPA"** means the United States Environmental Protection Agency.
15. **"Federal Clean Water Act"** means the federal legislation at 33 USC 1251, *et seq.*
16. **"Grab Sample"** means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
17. **"Instantaneous Maximum Limit"** means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
18. **"Instantaneous Measurement,"** for monitoring requirements, means a single reading, observation, or measurement.
19. **"Minimum Level"** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit.
19. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
20. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.

21. **“Regional Administrator”** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
22. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
23. **“TIE”** means a toxicity identification evaluation.
24. **"TMDL"** means the total maximum daily load limit of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
25. **“TRE”** means a toxicity reduction evaluation.
26. **"TSS"** means the pollutant parameter total suspended solids.
27. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.