North Dakota Department of Environmental Quality Public Notice Reissue of an NDPDES Permit

Public Notice Date: 2/19/2020 Public Notice Number: ND-2020-008

Purpose of Public Notice

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

Permit Information

Application Date: 9/30/2019 Application Number: ND0000094

Applicant Name: American Crystal Sugar Drayton

Mailing Address: PO Box 190, Drayton, ND 58225-0190

Telephone Number: 701.454.3230

Proposed Permit Expiration Date: 3/31/2025

Facility Description

The reapplication is for a sugar beet processing plant which produces sugar, beet molasses, and dried beet pulp. The discharge points are located in the NE1/4, Section 13, Township 159 N, Range 51 W, and in the SE1/4, Section 12, Township 159 N, Range 51 W. Any discharge, which would consist of beet processing water, cooling water, and stormwater, would be to the Red River of the North, a Class I stream.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCAA will be protected.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by March 23, 2020 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

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FACT SHEET FOR NDPDES PERMIT ND0000094

AMERICAN CRYSTAL SUGAR COMPANY DRAYTON, ND

DATE OF THIS FACT SHEET – JANUARY 2020

INTRODUCTION

The Federal Clean Water Act (CWA, 1972, and later amendments in 1977, 1981, and 1987, etc.) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES), which the US Environmental Protection Agency (EPA) oversees. In 1975, the State of North Dakota was delegated primacy of the NPDES program by EPA. The North Dakota Department of Environmental Quality, hereafter referred to as "department", has been designated the state water pollution control agency for all purposes of the Federal Water Pollution Control Act, as amended [33 U.S.C. 1251, et seq.], and is authorized to take all action necessary or appropriate to secure to this state the benefits of the act and similar federal acts. The department's authority and obligations for the wastewater discharge permit program is in the North Dakota Administrative Code (NDAC) 33.1-16 which was adopted under North Dakota Century Code (NDCC) chapter 61-28. In North Dakota, these permits are referred to as North Dakota Pollutant Discharge Elimination System (NDPDES) permits.

The following rules or regulations apply to NDPDES permits:

- Procedures the department follows for issuing NDPDES permits (NDAC chapter 33.1-16-01),
- > Standards of Quality for Waters of the State (NDAC chapter 33.1-16-02.1).

These rules require any treatment facility operator to obtain an NDPDES permit before discharging wastewater to state waters. They also define the basis for limits on each discharge and for other requirements imposed by the permit.

According to NDAC section 33.1-16-01-08, the department must prepare a draft permit and accompanying fact sheet and make it available for public review. The department must also publish an announcement (public notice) during a period of thirty days, informing the public where a draft permit may be obtained and where comments regarding the draft permit may be sent (NDAC section 33.1-16-01-07). For more information regarding preparing and submitting comments about the fact sheet and permit, please see **Appendix A – Public Involvement**. Following the public comment period, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and changes to the permit in **Appendix D – Response to Comments**.

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BACKGROUND INFORMATION

Table 1 – General Facility Information

| Applicant: | American Crystal Sugar Company |
|----------------------------|---|
| Facility Name and Address: | American Crystal Sugar Company Drayton Factory PO Box 190 8152 Old Highway 44 Drayton, ND 58225 |
| Permit Number: | ND0000094 |
| Permit Type: | Major Industrial Non POTW, Renewal |
| Type of Treatment: | Waste Stabilization Pond |
| SIC Code: | 2063 – Sugar and Confectionery Products |
| Discharge Location: | Red River of the North, Class I stream Outfall 001: Latitude: 48.600081 Longitude: -97.162369 Outfall 002 Latitude: 48.607092 Longitude: -97.152153 |
| Hydrologic Code: | 09020311 - Middle Red River |

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Figure 1 – Aerial Photograph of American Crystal Sugar Company – Drayton Factory (Google Earth 4/29/2016)

FACILITY DESCRIPTION

HISTORY

American Crystal Sugar Company – Drayton factory was built in 1965. This factory produces sugar, molasses and beet pulp pellets from the processing of sugar beets. This facility has the capacity to process approximately 7800 tons of beets per day during campaign with an annual beet slice of 2,100,000 tons. Annual sugar production is 6,300,000 c.w.t with a campaign of 270 days.

The plant was first permitted in 1965. At that time, wastewater treatment consisted of a lime pond and a large anaerobic lagoon containing partial finger dikes. A condenser pond also

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provided some treatment. Normal practice was to contain all wastewater until the spring high flow period and then discharge as much as possible through Outfall 001. A four-cell constructed wetland was built to provide additional treatment, and Outfall 002 from that system was activated in 1994. Since that time, regular discharges have been made from the constructed wetland, usually beginning in the spring and lasting through autumn.

Discharge quality from the constructed wetland system has generally been good, except that this facility has experienced some difficulty meeting the fecal coliform limitation which is a categorical limit of 400 cfu/100 ml as found in 40 CFR 409.12. The permittee maintains that all domestic wastewater is discharged to the city of Drayton's sanitary sewer system and that fecal coliforms are primarily of wildlife origin. A request to delete the fecal coliform limitation and monitoring requirements has been made by the permittee. The department has requested the permittee supply supporting evidence before taking the request under consideration. A study was done in 1997 at the ACS plant at Hillsboro, but the department determined that the information was inconclusive to remove the fecal coliform parameter.

On November 13, 2005, American Crystal Sugar (ACS - Drayton) experienced a riverbank slump of the Red River of the North. This event impacted 300 to 500 feet of the riverbank and the bed of the river was disturbed. The intake pump house was unsalvageable and the pipe from the pump house to the condenser pond cracked and spilled an estimated 80,000 gallons of wastewater to the Red River of the North. A new pump house was constructed 900 feet from the river and is now located by the condenser ponds. A dike was breached in the northeast corner of the spent lime landfill while the ash landfill appeared to be unaffected.

A monitoring program was implemented by ACS. This program provided for short-term and long-term goals and objectives. Short-term goals that have already been completed include the construction of a new pump house with a setback of 900 feet (of which 300 feet was impacted from the slump) from the river, river shore stabilization of 300 – 500 feet using rip rap, and installation of monitoring devices. Ongoing assessment of ground stability is accomplished by the installation and monitoring of inclinometers and finding survey benchmarks for comparison.

In July of 2009 it was noted that ACS had electrical service installed to the northwest corner of the condenser pond. This electrical service will be used to power 8 aerators to help with the treatment of wastewater in the condenser pond.

In 2014 ACS upgraded its stormwater collection system. A groundwater interceptor trench, which consists of drain tiles, has been installed, as well as 4 lift stations. There are 2 interior lift stations that collect beet piler and mud piler stormwater runoff. There are also 2 main lift stations which collect surface and stormwater from the majority of the yard. The collected water can be diverted to the mud pond, condenser pond, the constructed wetlands, or the pond on the city owned golf course depending on how much treatment the collected water needs.

In June of 2018, a fine bubbler diffuser system was added to the condenser pond. The bubblers are approximately 8 feet down in the pond which is around 17 feet deep and consist of 160 arrays with 16 diffusers on each array. The cooling pond diffuser area was reinforced with bars and the diffuser was rotated so its holes face downward to prevent more water coming out of the diffuser from being blown as much and contributing to erosion. More rip rap was added to protect from erosion. A new underground pipe was installed between the mud ponds and the

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treatment pond. The previous overhead pipe bridged between the pond dikes but was hit by a truck that was hauling equipment.

Treatment Processes

Wastewater is treated through three different series of ponds (Mud Ponds, Condenser Ponds, and Treatment Ponds with aerators) and then a constructed wetland system. Wastewater routed to the mud ponds is decanted and then sent over to the treatment pond for further treatment. Wastewater routed to the aerated treatment pond is treated by detention time and fine bubble diffused aerators and then routed to the constructed wetland system. The constructed wetland system was added to help with the removal of total suspended solids and ammonia removal while polishing the wastewater before discharging.

The following flow chart of the wastewater treatment system was provided with the permit application:

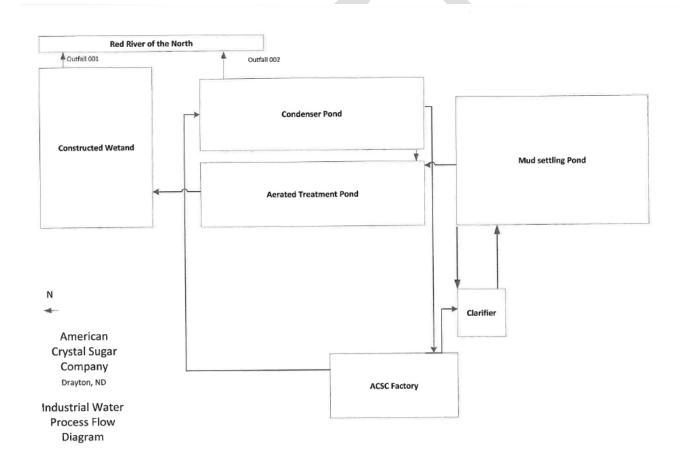


Figure 2 – Flow chart of wastewater for ACS – Drayton. Note: Outfall 001 and Outfall 002 labels are switched.

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Outfall Description

| Outfall 001. Active. Final Outfall. Condenser Pond Effluent. | | | | | |
|---|--|--------------|--------|--|--|
| Latitude: 48.600081 | Longitude: -97.162369 | County: Pemb | ina | | |
| Township: 159 | Range: 51 | Section: 13 | QQ: BA | | |
| Receiving Stream: Red River of the North Classification: Class I Stream | | | | | |
| Outfall Description: Outfall 001 flows from the condenser pond over land for roughly a mile | | | | | |
| before entering the Red River. This system utilizes a discharge termed "Continuous Seasonal | | | | | |
| Discharge" and is deemed to | Discharge" and is deemed to be continuous. | | | | |

| Outfall 002. Active. Final Outfall. Wetland System Effluent. | | | | | |
|--|----------------------------------|-----------------|-------------------------|--|--|
| Latitude: 48.607092 | Longitude: -97.152153 | County: Pemb | ina | | |
| Township: 159 | Range: 51 | Section: 12 | QQ: DAA | | |
| Receiving Stream: Red River of the North Class | | | Class I Stream | | |
| Outfall Description: Outfall 002 is the primary discharge and takes place from the constructed | | | | | |
| wetland system. The effluer | nt is directly piped to a county | drain which dra | ins 0.39 miles into the | | |
| Red River. This system utilizes a discharge termed "Continuous Seasonal Discharge" and is | | | | | |
| deemed to be continuous. | | | | | |

PERMIT STATUS

The department issued the previous permit for this facility on April 1, 2015. The previous permit placed effluent limits on Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), pH, Ammonia as N, Fecal Coliform, and Whole Effluent Toxicity (WET).

The department has been in contact with ACS – Drayton to obtain information to reissue their permit. The department received EPA application Form 1 and Form 2C on September 30, 2019. The application was accepted by the department on September 30, 2019. Effluent sample data has been provided to the department through official laboratory reports, discharge monitoring reports, and the permit application.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

Five (5) inspections of the facility have been conducted from April 1, 2015 to January 1, 2020. Department staff last conducted a non-sampling compliance inspection on September 23, 2019. The facility was found to be in non-compliance due to multiple effluent limitation exceedances (Table 2). The department's assessment of the compliance is based on review of the facility's Discharge Monitoring Report (DMR) forms and inspections conducted by department staff.

PAST DISCHARGE DATA

The concentration of pollutants in the discharge was reported in discharge monitoring report forms. The effluent is characterized as shown in Table 2.

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| | | DMR Re | porting | | |
|-------------------------|------------------------|--------------|---------------|-------------------------|--------------------------|
| Parameter | Units | Range | Average | Permit Limit | Number of Exceedances |
| Effluent – Outfall | 002 | | | | |
| BOD5 | mg/l | 2 – 34 | 9.33 | 25 45 | 0 |
| DO | mg/l | 2 – 10.4 | 5.32 | NA | 0 |
| TSS | mg/l | 1 – 71 | 13.48 | 30 45 | 3 |
| Fecal Coliform | Colonies per 100 ml | 40 – 12700 | 2201 | 400 | 20 |
| рН | SU | 8.1 – 8.8 | NA | 7.0 to 9.0 | 0 |
| Ammonia as N | mg/l | 0.1 – 13.6 | 5.02 | WQS | 0 |
| COD | mg/l | 84.4 – 258 | 152.22 | NA | NA |
| Ceriodaphnia dubia | Pass = 0 Fail = 1 | 0 | NA | 0 | 0 |
| Fathead Minnow | Pass = 0 Fail = 1 | 0 | NA | 0 | 0 |
| Flow | MGD | 0.28 – 11.83 | 2.26 | NA | NA |
| Stream Flow | cfs | 1080 – 5640 | 2660 | NA | NA |
| | | Applicatio | n Report | | |
| Parameter | Units | Max Daily | Max 30 Day | Long Term Avg. Value | Number of Analyses |
| Effluent – Outfall | 002 | | | | |
| BOD5 | mg/l | 35.8 | 24.2 | 8.7 | 81 |
| TSS | mg/l | 74 | 13.5 | 13.5 | 82 |
| Fecal Coliform | CFU/100 ml | 12700 | 2930 | 2290 | 40 |
| pН | SU | 8.1 – 8.8 | NA | NA | 82 |
| Ammonia as N | mg/l | 13.6 | 8.0 | 5.5 | 82 |
| COD | mg/l | 250 | 190.5 | 146.3 | 82 |
| Flow | MGD | 18.5 | 2.6 | 2.3 | 272 |
| Temperature (Summer) | °C | 26.8 | 23.3 | 18.5 | 45 |
| Total | mg/l | 3.83 | NA | 2.2 | 38 |

ACS usually starts a seasonal continuous discharge in May and ends before river freeze up.

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PROPOSED PERMIT LIMITS AND SELF MONITORING REQUIREMENTS

The discharge of wastewater generated in the beet sugar process is regulated under 40 CFR 409, Subpart A. Upon review, the department has determined that the facility is subject to the Best Practicable Control Technology (BPT) currently available guidelines (40 CFR 409.12(b)). The department also reviewed the Best Available Technology (BAT) and Best Conventional Pollutant Control Technology (BCT) which both referenced back to 40 CFR 409.12; therefore, it was determined that 40 CFR 409.12(b) was applicable to this facility. The BPT guidelines provide production-based limitations for BOD5, TSS, pH, Fecal Coliform, and Temperature. The BPT effluent guidelines are summarized in the table below:

Table 3 – Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available

| | Federal Requirements | | | | |
|----------------|--------------------------------------|-------|--|--|--|
| Parameter | 30 Day Average Daily Maximu | | | | |
| | (lb/1,000 lb of pro | duct) | | | |
| BOD5 | 3.3 | 3.3 | | | |
| TSS | 2.2 | 2.2 | | | |
| рН | Within the range 6.0 to 9.0 | | | | |
| Fecal Coliform | Not to exceed 400/100 ml at any time | | | | |
| Temperature | Not to exceed 90 °F | | | | |

The previous two permits have not included limitations for BOD and TSS based on river flow and amount of sugar produced as set forth in 40 CFR 409 – Beet Sugar Processing Subcategory; Subpart A. The department had determined that loading and river flow-based limits are not as protective as concentration limitations, so the department removed loading and river flow-based limitations and added concentration limitations. The department will continue to use concentration limitations for BOD and TSS for this permit reissuance.

EFFLUENT LIMITATIONS

The proposed effluent limitations shall take effect once the permit becomes active. The effluent limitations and the basis for the limitations are provided in the table below:

Table 4 - Basis of Effluent Limits for Outfall 001 and Outfall 002

| Effluent Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Basis ^a |
|---|--------------------------|-------------------------|---------------------------|--|
| | | Concentra | tion | |
| BOD₅, mg/l | 25 | 45 | * | Previous Permit NDAC 33.1-16-01-14(3)(c)(1) 40 CFR 133.102(a)(2) |
| Total Suspended Solids (TSS), mg/l ° | 30 | 45 | * | Previous Permit 40 CFR 133.102(b)(1)&(2) |
| Fecal Coliforms cfu/ 100 ml | * | * | 400 | Previous Permit 40 CFR 409.12 |

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| Effluent Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Basis ^a |
|---|--------------------------|-------------------------|---------------------------|--|
| | | Concentra | tion | |
| Ammonia as N, mg/l b | b | b | b | Previous Permit WQS |
| pH, SU | Shall ren | nain betwe | en 7.0 to 9.0 | WQS |
| Whole Effluent Toxicity, TUa | * | * | <1.0 | 40 CFR 122.21(j)(5) 40 CFR 122.44(d)(1)(iv) & (v) |
| Whole Effluent Toxicity, TUc | * | * | * | 40 CFR 122.44(d)(1)(iv) & (v) |
| Total Phosphorus, mg/l | * | * | * | WQS |
| Total Nitrogen, mg/l | * | * | * | WQS |
| There shall be no discha in other than trace amou visible sheen in the rece | nts, nor a d | ischarge w | | Previous Permit WQS |

Notes:

a.

* This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.

The basis of the effluent limitations is given below:

"Previous Permit" refers to limitations in the previous permit. The NPDES regulations 40 CFR Part 122.44(1)(1) Reissued permits require that when a permit is renewed or reissued, interim limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit unless the circumstances on which the previous permit was issued have materially and substantially changed since the previous permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR Part 122.62.

"WQS" refers to effluent limitations based on the State of North Dakota's "Standards of Quality for Waters of the State", NDAC Chapter 33.1-16-02.1.

ACS – Drayton shall review each discharge by evaluating the WQS ammonia criterion, which is dependent on river flow, discharge rate, river pH, river temperature, and the effluent ammonia concentration. This determination shall be in accordance to the formula specified in the latest revision of the state WQS.

b. Permittee will use Red River of the North parameters to calculate the real-time water quality standard for ammonia (USGS gage 05092000). This calculated limit will be compared to facility effluent data on ammonia and if the effluent value is greater than the calculated limit, the permittee will report an exceedance.

Average Monthly Ammonia as N Limitation (Chronic Standard)

The 30-day average concentration of total ammonia (expressed as N in mg/L) is given by the following formula; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value

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| Effluent Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Basis ^a |
|--------------------|--------------------------|-------------------------|---------------------------|--------------------|
| T di diliotoi | (| Concentra | tion | |

given by the following formula:

$$\left[\left(\frac{0.0577}{1 + 10^{7.688 - pH}} \right) + \left(\frac{2.487}{1 + 10^{pH - 7.688}} \right) \right] \bullet CV$$

where CV = 2.85, when T
$$\leq$$
 14°C; or CV = 1.45 * 10^{0.028 * (25 - T)}, when T > 14°C.

Receiving stream pH is used for the calculation

Daily Maximum Limitation (Acute Standard)

For acute toxicity, the one-hour average concentration of total ammonia (expressed as N in mg/L) is given by the following formula:

$$\left(\frac{0.411}{1+10^{7.204-pH}}\right) + \left(\frac{58.4}{1+10^{pH-7.204}}\right)$$

where salmonids are absent

Receiving stream pH is used for the calculation

Note – For all above calculations, permittee receives ten percent of stream flow for dilution at time of discharge based on the flow of the Red River of the North. In-stream concentration will be calculated on a mass balance basis using the following formula:

In-stream concentration= $(Q_u^*C_u + Q_e^*C_e)/(Q_{u+}Q_e)$ where

Q_u = 10% of the Red River of the North flow parameter

C_u = Red River of the North ammonia parameter

Q_e = Effluent flow parameter

C_e = Ammonia as N parameter

SELF-MONITORING REQUIREMENTS

All effluent is sampled at a point leaving Outfall 001 or Outfall 002 but prior to entering waters of the state.

Table 5 - Self-Monitoring Requirements

| Effluent Parameter | Frequency | Sample Type ^a |
|-------------------------|-----------|--------------------------|
| BOD ₅ , mg/l | 2/Week | Grab |
| DO, mg/l | 2/Week | Grab |
| COD, mg/l | 2/Week | Grab |

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| Effluent Parameter | Frequency | Sample Type ^a | | |
|--|------------------------------------|--------------------------|--|--|
| TSS, mg/l | 2/Week | Grab | | |
| Fecal Coliform, cfu/100 ml | Weekly | Grab | | |
| Ammonia as N, mg/l | 2/Week | Grab | | |
| Total Phosphorus, mg/l | Monthly | Grab | | |
| Total Nitrogen, mg/l | Monthly | Grab | | |
| pH, SU | 2/Week | Grab | | |
| WET, TUa | b | Grab | | |
| WET, TUc | С | Composite | | |
| Flow, MGD | Flow, MGD Daily | | | |
| Total Drain, MG | Total Drain, MG Monthly Calculated | | | |
| R | ed River of the North Paramete | ers | | |
| pH, s.u. – Upstream | 2/week | Instantaneous | | |
| Temperature, °C – Upstream | 2/week | Instantaneous | | |
| Red River, cfs | Daily | USGS gage 05092000 | | |
| Notes: | | | | |
| a. Refer to Appendix B fo | r definitions. | | | |
| b. Testing shall be performed on the first discharge made each calendar year. Thereafter, tests shall be performed at least once every ninety (90) days in which there is a discharge. | | | | |
| c. Chronic WET testing s season. | 9 | | | |

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33.1-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

Currently, the stream reach of the Red River of the North (ND-09020311-001-S_00) that the facility discharges into is listed as impaired under Section 303(d) for not supporting fish consumption due to Methylmercury in the North Dakota 2018 Section 303(d) List of Waters Needing Total Maximum Daily Loads. The stream is listed as a low priority for TMDL development. Mercury is believed absent from the facility's discharge, according to the facility's completed application. Upon review of the treatment system inputs and processes, the department concurs with this conclusion. Due to this, the department proposes not to include a mercury limitation.

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Numerical water quality criteria are listed in the water quality standards for surface waters (NDAC Chapter 33.1-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. The department uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

The U.S. EPA has published numeric water quality criteria for the protection of human health that are applicable to dischargers. These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The Water Quality Standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

Narrative Criteria

Narrative water quality criteria (NDAC Chapter 33.1-16-02.1-08) limit concentrations of pollutants from exceeding applicable standards of the receiving waters. The department adopted a narrative biological goal solely to provide an additional assessment method that can be used to identify impaired surface waters.

Antidegradation

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33.1-16-02(Appendix IV)) is to:

- Provide all waters of the state one of three levels of antidegradation protection.
- Determine whether authorizing the proposed regulated activity is consistent with antidegradation requirements.

The department's fact sheet demonstrates that the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit.

Mixing Zones

The department's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33.1-16-02.1 (Appendix III). This policy addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations for point source discharges. Depending upon site-specific mixing patterns and environmental concerns, some pollutants/criteria may be allowed a mixing zone or dilution while others may not. In all cases, mixing zone and dilution allowances shall be limited, as necessary, to protect the integrity of the receiving water's ecosystem and designated uses.

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EVALUATION OF SURFACE WATER QUALITY-BASED EFFLUENT LIMITS FOR NUMERIC CRITERIA

Outfall 001: This outfall did not have any discharges occur during the previous permit cycle. Therefore, there is no current data to evaluate. The department proposes to continue with the limits listed in the previous permit.

Outfall 002:

BOD₅

The department has reviewed the BOD₅ data and sampling frequency. No exceedances occurred for this parameter. The department proposes to continue with BOD₅ limits of 25 mg/l (monthly average) and 45 mg/l (weekly average) with a sampling frequency of twice per week.

TSS

The department has reviewed the TSS data and sampling frequency. Three exceedances occurred for this parameter, one for the monthly average and two for the weekly average. Both exceedances for the weekly average were over the technical review criteria (TRC). The TRC values for TSS were determined by the follow equation:

TRC 1.4 * TSS 45 mg/l = TSS 63 mg/l

The department proposes to continue with TSS limits of 30 mg/l (monthly average) and 45 mg/l (weekly average) with a sampling frequency of twice per week.

pН

The department has reviewed the pH data and sampling frequency. No exceedances occurred for this parameter. A determination was made to continue with the pH limit, which "shall remain between 7.0 and 9.0" as referenced in the WQS for Class I and IA water bodies with a sampling frequency of twice per week.

Ammonia as Nitrogen

The department has reviewed the Ammonia as Nitrogen data and sampling frequency. No exceedances occurred for this parameter.

Federal regulations (40 CFR 122.44) require the department to place limits in NDPDES permits on toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria.

Ammonia is a toxic pollutant present in the discharge. The department conducted a Reasonable Potential (RP) analysis during a previous permitting cycle using procedures given in "Technical Support Document (TSD) For Water Quality-based Toxics Control"; EPA/505/2-90-001; March 1991". The department found reasonable potential for ACS – Drayton to cause a violation of the state WQS for ammonia.

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North Dakota's aquatic life standards for ammonia are dependent upon the pH, Ammonia as N, and the temperature of the receiving water body. To determine the applicable WQS ACS – Drayton will use pH and temperature data from the Red River of the North (USGS gage station 05092000) in its calculation found in Table 4.

Fecal Coliform

The department reviewed the fecal coliform data and sampling frequency. Twenty exceedances occurred for this parameter. The limitation for fecal coliform comes from 40 CFR 409.12. The geometric mean of fecal coliform shall not individually exceed 400 organisms per 100 ml during any 30-day consecutive period.

Total Sulfide

Total sulfide was removed during previous permitting reissuance process. Total sulfide is not listed in the WQS or in Subpart A of 40 CFR 409 and appears to pose no environmental risk at this facility.

Temperature

Effluent temperature sampling was removed during the previous permitting reissuance process. The department's analysis of the treatment system determined an unlikely violation of the water quality standard or 40 CFR 409; Subpart A.

WHOLE EFFLUENT TOXICITY

Testing requirements and limitations for whole effluent toxicity (WET) testing are specified in 40 CFR 122.44(d)(1)(iv) & (v) for dischargers that may have the reasonable potential to contribute to an in-stream excursion above a numeric or narrative criterion for WET. The WQS include a narrative standard related to WET. The narrative standard listed in NDAC 33.1-16-02.1-08(1)(a)(4) states that waters of the state shall be "free from substances attributable to municipal, industrial, or other discharges or agricultural practices in concentrations which are toxic or harmful to humans, animals, plants or resident aquatic biota. For surface water this standard will be enforced in part through appropriate whole effluent toxicity requirement in North Dakota pollutant discharge elimination system permits".

In the previous permit a reasonable potential analysis was performed, and it was determined that there is a reasonable potential that toxic effects may be caused by unidentified pollutants in the effluent.

ACS will be required to perform one fathead minnow and one *Ceriodaphnia dubia* WET test on the first discharge made each calendar year. Testing shall continue at least once every ninety days in which there is a discharge. The department has determined to use **ACUTE** WET testing.

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Acute test failure (LC50) is defined as lethality to 50% or more of the test organisms exposed to 100% effluent for *Ceriodaphnia dubia* 48 hour and fathead minnow 96-hour test. The 48-hour and 96-hour LC50 effluent value must be >100% or <1 TUa to indicate a passing test. Any 48-hour or 96-hour LC50 effluent value of 100% or less will constitute a failure. Tests in which the control survival is less than 90% are invalid and must be repeated.

The previous permit began monitoring for Chronic WET testing due to Acute WET test failures. ACS was required to perform one fathead minnow and one *Ceriodaphnia dubia* **Chronic** WET test per discharge season. The department conducted a reasonable potential analysis using procedures given in "Technical Support Document (TSD) For Water Quality-based Toxics Control"; EPA/505/2-90-001; March 1991". The department found no reasonable potential that toxic effects may be caused by unidentified pollutants in the effluent using Chronic WET testing. However, the department conducted the RP analysis using six (6) data points, therefore chronic WET testing will continue and be for monitoring only and thus will be used as data collection for the next permitting reissuance process.

Table 6 – WET Testing Requirements

| I able 0 - WET TESHI | ig reduit official | | | |
|--|--|--|--|--|
| Acute WET requirements for Outfall 001 and Outfall 002 | | | | |
| Implementation | Limitations Imposed | | | |
| Effluent Dilution | 0%(Control) 12.5% 25% 50% 75% 100% | | | |
| Dilution Water | Red River of the North | | | |
| Species and | Ceriodaphnia dubia - 48 Hour Acute - Static Renewal - 20°C | | | |
| Test Type | Fathead Minnow - 96 Hour Acute - Static Renewal - 20°C | | | |
| Endpoint | TUa | | | |
| Compliance Point | End-of-Pipe | | | |
| Chron | Chronic WET requirements for Outfall 001 and Outfall 002 | | | |
| Implementation | Monitoring Only | | | |
| Effluent Dilution | 0%(Control) 6.25% 12.5% 25% 50% 100% | | | |
| Dilution Water | Red River of the North | | | |
| Species and | Ceriodaphnia dubia – 7-Day Chronic – Static Renewal – 25°C | | | |
| Test Type | Fathead Minnow – 7-Day Chronic – Static Renewal – 25°C | | | |
| | Survival and Reproduction (Ceriodaphnia dubia) – IC25 reported | | | |
| Endpoint | as TUc | | | |
| Litapoliti | Larval Growth and Survival (Fathead Minnow) – IC25 reported as | | | |
| | TUc | | | |
| Compliance Point | End-of-Pipe | | | |

HUMAN HEALTH

North Dakota's water quality standards include numeric human health-based criteria that the department must consider when writing NDPDES permits. These criteria were established in 1992 by the U.S. EPA in its National Toxics Rule (40 CFR 131.36). The National Toxics Rule allows states to use mixing zones to evaluate whether discharges comply with human health criteria. The department determined the applicant's discharge is unlikely to contain chemicals

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regulated to protect human health. The department will re-evaluate this discharge for impacts to human health at the next permit reissuance.

OTHER PERMIT CONDITIONS

STORMWATER

All stormwater from the facility site shall be collected and routed to the wastewater treatment system. Implement Best Management Practices (BMPs) where necessary to lessen the impact on the wastewater treatment facility.

PERMIT ISSUANCE PROCEDURES

PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. 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.

PROPOSED PERMIT ISSUANCE

This proposed permit meets all statutory requirements for the department to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the State of North Dakota. The department proposes to issue this permit for a term of five (5) years.

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APPENDIX A - PUBLIC INVOVLEMENT INFORMATION

The department proposes to reissue a permit to American Crystal Sugar Company located by Drayton, North Dakota. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and the department's reasons for requiring permit conditions.

The department will place a Public Notice of Draft on **February 19, 2020** in the **Cavalier Chronicle** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

The Notice -

- Indicates where copies of the draft Permit and Fact Sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges individuals to submit their comments before the end of the comment period.
- Informs the public that if there is significant interest, a public hearing will be scheduled.

You may obtain further information from the department by telephone, 701.328.5210, or by writing to the address listed below.

North Dakota Department of Environmental Quality
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismarck, ND 58501

The primary author of this permit and fact sheet is Sarah Waldron Feld.

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North Dakota Department of Environmental Quality Public Notice Reissue of an NDPDES Permit

Public Notice Date: 2/19/2020 Public Notice Number: ND-2020-008

Purpose of Public Notice

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code

Permit Information

Application Date: 9/30/2019 Application Number: ND0000094

Applicant Name: American Crystal Sugar Drayton Mailing Address: PO Box 190, Drayton, ND 58225-0190

Telephone Number: 701.454.3230

Proposed Permit Expiration Date: 3/31/2025

Facility Description

The reapplication is for a sugar beet processing plant which produces sugar, beet molasses, and dried beet pulp. The discharge points are located in the NE1/4, Section 13, Township 159 N, Range 51 W, and in the SE1/4, Section 12, Township 159 N, Range 51 W. Any discharge, which would consist of beet processing water, cooling water, and stormwater, would be to the Red River of the North, a Class I stream.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCAA will be protected.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by March 23, 2020 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

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APPENDIX B - GLOSSARY

DEFINITIONS Standard Permit BP 2019.05.29

- 1. "Act" means the Clean Water Act.
- 2. "Average monthly discharge 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.
- 3. "Average weekly discharge 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.
- 4. "Best management practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
- 5. "**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.
- 6. "Composite" sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.
- 7. "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.
- 8. "Department" means the North Dakota Department of Environmental Quality, Division of Water Quality.
- 9. "DMR" means discharge monitoring report.
- 10. "EPA" means the United States Environmental Protection Agency.
- 11. "**Geometric mean**" means the nth root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

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- 12. "**Grab**" for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.
- 13. "**Instantaneous**" for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.
- 14. "Maximum daily discharge limitation" means the highest allowable "daily discharge."
- 15. "**Salmonid**" means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.
- 16. "Sanitary Sewer Overflows (SSO)" means untreated or partially treated sewage overflows from a sanitary sewer collection system.
- 17. "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.
- 18. "Total drain" means the total volume of effluent discharged.
- 19. "**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.

DEFINITIONS Whole Effluent Toxicity (WET) BP 2017.04.06

- 1. "Acute toxic unit" ("TUa") is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC50").
- 2. "Chronic toxic unit" ("TUc") is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/"IC25").
- 3. "Inhibition concentration", ("IC"), is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
- 4. "**LC50**" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the organisms exposed in the time period prescribed by the test.

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5. "No observed effect concentration", ("NOEC"), is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).



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APPENDIX C - DATA AND TECHNICAL CALCULATIONS

DFLOW

USGS gage station 05092000 on the Red River of the North was used to determine critical low flows using the DFLOW (3.1b) program. The season defined was 1990 to 2020.

| DFLOW 1B3 (ACUTE) | 505 | CFS | DFLOW 1Q10 (ACUTE) | 553* | CFS |
|-----------------------|-----|-----|----------------------|------|-----|
| DFLOW 4B3 (CHRONIC) | 732 | CFS | DFLOW 7Q10 (CHRONIC) | 594* | CFS |
| DFLOW 30B10 (AMMONIA) | 909 | CFS | | | |

^{*}DFLOW 1Q10 (Acute) and DFLOW 7Q10 (Chronic) stated that there was insufficient data to calculate. The department made a determination to use the values from the previous permit reissuance.

WET

The reasonable potential determination for TUc is provided below. The determination is conducted utilizing the Technical Support Document for the Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991 (TSD; March 1991). The coefficient of variation used was 0.6.

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Whole Effluent Toxicity (WET) Resonable Potential (RP) Determination

Technical Support Document (TSD) For Water Quality-based Toxics Control EPA/505/2-90-001; March 1991

| Facility Name: | ACS - Drayton | | Receiving Stream: | Red River | |
|-------------------------|---------------|----------|-------------------|-----------|----------|
| NDPDES Permit: | NDO | 0000094 | 1Q10 Acute | 553 | cfs |
| Effluent Flow (mgd): | | 11.830 | 1B3 Acute | 505 | cfs |
| Stream Design Mixin | g: | 10.0% | 7Q10 Chronic | 594 | cfs |
| WET TUa (max): | | 6.33 | 4B3 Chronic | 732 | cfs |
| ACR: | | | | | |
| Statistical Multiplier: | | 2.1 | | | |
| | | 01.10.0 | | | 0.45.11 |
| | RWC | StatQeCe | _ | | Outfall: |
| Qe+(pmf)Qs | | | | 002 | |

RWC = Receiving water concentration, the resultant magnitude of toxicity in the receiving water after effluent discharge in TUs (also known as the in-stream waste concentration)

Stat = Statistical multiplier for effluent parameter (Table 3-1 and 3-2; page 57 of the TSD)

Qe = Effluent Design Flow

Ce = Highest Toxicity Unit (TU) reported. (Use 1 if no WET data is available.)

pmf = Partial mix factor, percent of Qs allowed for mixing by State authority.

Qs = Receiving Water Flow (1Q10 or 1B3 for acute and 7Q10 or 4B3 for chronic)

| Qe Ce pmf Stat ACR | 11.830 6.33 10.0% 2.1 0.00 | mgd TU | Qs - Acute Qs - Acute 1B3 Qs - Chronic Qs - Chronic 4B3 | 357.238 326.230 383.724 472.872 | mgd mgd mgd mgd |
|--------------------------------|--|-----------|--|--|--------------------------|
| Acute RP | | | Chronic RP | | |
| RWC - 1Q10 | 3.31 | TUa | RWC - 7Q10 | 0.00 | TUc |
| RWC - 1B3 | 3.54 | TUa | RWC - 4B3 | 0.00 | TUc |
| Criterion Maximum C | oncentrat | ion (CMC) | Criterion Continuous | Concentr | ation (CCC) |
| Acute Criterion | 0.3 | TUa | Chronic Criterion | 1.0 | TUc |

If the calculated RWC is greater than its respective criterion then there is RP and if RWC is less than the criterion then there is no RP.

| CMC RP Present: | | CCC RP Present: | | |
|-----------------|-----|-----------------|----|--|
| 1Q10 Acute OR | YES | 7Q10 Chronic OR | NO | |
| 1B3 Acute | YES | 4B3 Chronic | NO | |

The North Dakota State Water Quality Standards (WQS) Chapter 33-16-02.1 use biologically based design flows to determine Whole Effluent Toxicity (WET) limits for acute and chronic endpoints.

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APPENDIX D - RESPONSE TO COMMENTS

Any comments received during the public comment period will be addressed here.



Permit No: ND000009
Effective Date: April 1, 2020
Expiration Date: March 31, 2025

AUTHORIZATION TO DISCHARGE UNDER THE NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33.1-16-01 of the North Dakota Department of Environmental Quality rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

| American Crystal Sugar Company |
|---|
| is authorized to discharge from its sugar beet processing facility in Drayton, North Dakota |
| to the Red River of the North, a Class I Stream |
| provided all the conditions of this permit are met. |
| This permit and the authorization to discharge shall expire at midnight, March 31, 2025. |
| Signed this day of, |
| Karl H. Rockeman, P.E. Director Division of Water Quality |

BP 2019.05.29

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DEFINITIONS Standard Permit BP 2019.05.29

- 1. "Act" means the Clean Water Act.
- 2. "Average monthly discharge 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.
- 3. "Average weekly discharge 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.
- 4. "Best management practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
- 5. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- 6. "Composite" sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.
- 7. "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.
- 8. "Department" means the North Dakota Department of Environmental Quality, Division of Water Quality.
- 9. "DMR" means discharge monitoring report.
- 10. "EPA" means the United States Environmental Protection Agency.
- 11. "Geometric mean" means the nth root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
- 12. "**Grab**" for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.
- 13. "Instantaneous" for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.
- 14. "Maximum daily discharge limitation" means the highest allowable "daily discharge."
- 15. "**Salmonid**" means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.

- 16. "Sanitary Sewer Overflows (SSO)" means untreated or partially treated sewage overflows from a sanitary sewer collection system.
- 17. "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.
- 18. "Total drain" means the total volume of effluent discharged.
- 19. "**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.

DEFINITIONS Whole Effluent Toxicity (WET) BP 2017.04.06

- 20. "Acute toxic unit" ("TUa") is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC50").
- 21. "Chronic toxic unit" ("TUc") is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/"IC25").
- 22. "Inhibition concentration", ("IC"), is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
- 23. "**LC50**" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the organisms exposed in the time period prescribed by the test.
- 24. "No observed effect concentration", ("NOEC"), is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

OUTFALL DESCRIPTION

| Outfall 001. Active. Final Outfall. Condenser Pond Effluent. | | | | | | |
|--|-----------|-------------|---------|--|--|--|
| Latitude: 48.594444 Longitude: -97.151667 County: Stutsman | | | | | | |
| Township: 159 | Range: 51 | Section: 13 | QQ: ADD | | | |
| Receiving Stream: Red River of the North Classification: Class I Stream | | | | | | |
| Outfall Description: Outfall 001 flows from the condenser pond over land for roughly a mile before | | | | | | |
| entering the Red River. This system utilizes a discharge termed "Continuous Seasonal Discharge" | | | | | | |
| and is deemed to be cont | inuous. | | | | | |

| Outfall 002. Active. Final Outfall. Wetland System Effluent. | | | | | | |
|---|--------------------------------|-----------------|----------------------|--|--|--|
| Latitude: 48.602222 Longitude: -97.152222 County: Stutsman | | | | | | |
| Township: 159 | Section: 12 | QQ: DAA | | | | |
| Receiving Stream: Red River of the North Classification: Class I Stream | | | | | | |
| Outfall Description: Outfall | I 002 is the primary discharge | and takes place | from the constructed | | | |
| wetland system. The effluent is directly piped to a county drain which drains 0.39 miles into the Red | | | | | | |
| River. This system utilizes a discharge termed "Continuous Seasonal Discharge" and is deemed to | | | | | | |
| be continuous. | | | | | | |

PERMIT SUBMITTALS SUMMARY

| Coverage Point | Submittal | Frequency | First Submittal Date |
|---------------------|-----------------------------|----------------|----------------------|
| 001A | Discharge Monitoring Report | Monthly | May 31, 2020 |
| 002A | Discharge Monitoring Report | Monthly | May 31, 2020 |
| 001W | Discharge Monitoring Report | Quarterly | July 31, 2020 |
| 002W | Discharge Monitoring Report | Quarterly | July 31, 2020 |
| Application Renewal | NPDES Application Renewal | 1/permit cycle | September 30, 2024 |

SPECIAL CONDITIONS

Stormwater

All stormwater from the facility shall be collected and routed to the wastewater treatment system. Implement Best Management Practices (BMPs) where necessary to lessen the impact on the wastewater treatment facility.

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls as specified to the following: **Red River of the North**

This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring

1. The permittee must limit and monitor all discharges as specified below:

| Table 1: Effluent Limitations and Monitoring Requirements Outfall 001 and Outfall 002 | | | | | |
|---|--------------------------|---------------------------|-------------------------------|---------------------|---------------|
| | Efflu | ent Limitatio | Monitoring R | equirements | |
| Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Sample Frequency | Sample Type |
| Biological Oxygen Demand (BOD₅) | 25 mg/l | 45 mg/l | * | 2/week | Grab |
| Total Suspended Solids (TSS) | 30 mg/l | 45 mg/l | * | 2/week | Grab |
| pH ^a | Shall remain | between 7.0 | to 9.0 s.u. ^a | 2/week | Grab |
| Total Ammonia as N, (mg/l) ^b | b | b | b | 2/week | Grab |
| Fecal Coliforms | * | * | 400/100 ml | Weekly | Grab |
| Chemical Oxygen Demand (COD), (mg/l) | Report | * | Report | 2/week | Grab |
| Dissolved Oxygen (DO), (mg/l) | Report daily m | minimum a onthly value | 9 | 2/week | Grab |
| Phosphorus, Total (mg/l) | * | * | * | Monthly | Grab |
| Nitrogen, Total (mg/l) | * | * | * | Monthly | Grab |
| Effluent Flow, mgd | Report | * | Report Max. Daily Value | Daily | Instantaneous |
| Total Drain, mgal | * | * | Report Monthly Total | Monthly | Calculated |
| Whole Effluent Toxicity (WET), (TUa) ° | Re | Refer to Part I.C | | | Grab |
| Whole Effluent Toxicity (WET), (TUc) ^d | Refer to Part I.C | | | d | Composite |
| Red River of the North Parameters | | | | | |
| pH, s.u. – Upstream | * | * | * | 2/week | Instantaneous |

| Table 1: Effluent Limitations and Monitoring Requirements Outfall 001 and Outfall 002 | | | | | | |
|---|--------------------------|-------------------------|---------------------------|-------------------------|-----------------------|--|
| | Effluent Limitations | | | Monitoring Requirements | | |
| Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Sample Frequency | Sample Type | |
| Temperature, °C – Upstream | * | * | * | 2/week | Instantaneous | |
| Red River, cfs | * | * | * | Daily | USGS gage 05092000 | |

Notes:

- * This parameter is not limited. However the department may impose limitations bases on sample history and to protect the receiving waters.
- a. The pH, an instantaneous limitation, shall be between 7.0 (s.u.) and 9.0 (s.u.). Any single analysis or a measurement beyond this limitation shall be considered a violation of the conditions of this permit.
- b. ACS Drayton shall review each discharge by evaluating the WQS ammonia criterion, which is dependent on river flow, discharge rate, river pH, river temperature, and the effluent ammonia concentration. This determination shall be in accordance to the formula specified in the latest revision of the state WQS.

Permittee will use Red River of the North parameters to calculate the real-time water quality standard for ammonia (USGS gage 05092000). This calculated limit will be compared to facility effluent data on ammonia and if the effluent value is greater than the calculated limit, the permittee will report an exceedance.

Average Monthly Ammonia as N Limitation (Chronic Standard)

The 30-day average concentration of total ammonia (expressed as N in mg/L) is given by the following formula; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:

$$\left[\left(\frac{0.0577}{1 + 10^{7.688 - pH}} \right) + \left(\frac{2.487}{1 + 10^{pH - 7.688}} \right) \right] \bullet CV$$

where CV = 2.85, when T
$$\leq$$
 14°C; or CV = 1.45 * 10^{0.028 * (25 - T)}, when T > 14°C.

Receiving stream pH is used for the calculation

| Table 1: Effluent Limitations and Monitoring Requirements Outfall 001 and Outfall 002 | | | | | | |
|---|--------------------------|-------------------------|---------------------------|-------------------------|-------------|--|
| | Effluent Limitations | | | Monitoring Requirements | | |
| Parameter | Avg. Monthly Limit | Avg. Weekly Limit | Daily Maximum Limit | Sample Frequency | Sample Type | |

Daily Maximum Limitation (Acute Standard)

For acute toxicity, the one-hour average concentration of total ammonia (expressed as N in mg/L) is given by the following formula:

$$\left(\frac{0.411}{1+10^{7.204-pH}}\right) + \left(\frac{58.4}{1+10^{pH-7.204}}\right)$$

where salmonids are absent

Receiving stream pH is used for the calculation

Note – For all above calculations, permittee receives ten percent of stream flow for dilution at time of discharge based on the flow of the Red River of the North. In-stream concentration will be calculated on a mass balance basis using the following formula:

In-stream concentration= (Q_u*C_u + Q_e*C_e)/(Q_{u+} Q_e) where

Q_u = 10% of the Red River of the North flow parameter

C_u = Red River of the North ammonia parameter

Q_e = Effluent flow parameter

C_e = Ammonia as N parameter

- c. Acute WET testing shall be performed on the first discharge made each calendar year. Thereafter, tests shall be performed at least once every ninety (90) days in which there is a discharge.
- d. Chronic WET testing shall be performed at least once per species per discharge season.

Stipulations:

There is to be no floating oil or visible sheen present in the discharge. The discharge shall not contain, in sufficient amounts to be unsightly or deleterious, any floating debris, oil, scum, and other floating materials attributable to domestic wastewater operations. If floating oil or a visible sheen is observed at the discharge point, the department shall be contacted

Dates of discharge and number of exceedances shall be included on the Discharge Monitoring Reports (DMRs).

Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving company property or entering the receiving stream.

C. Whole Effluent Toxicity (WET) Requirements BP 2015.08.26

1. Acute Toxicity Testing

Acute toxicity tests shall be conducted in general accordance with the procedures set out in the latest

revision of "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms," EPA-821-R-02-012 (Fifth Ed., October 2002). The permittee shall conduct an acute 48-hour static renewal toxicity test using freshwater fleas, Ceriodaphnia dubia and an acute 96-hour static renewal toxicity test using fathead minnows, Pimephales promelas.

WET tests shall be performed on the first discharge made each calendar year, unless specifically waived by the department. Thereafter, tests shall be performed at least once every ninety (90) days in which there is a discharge.

Toxicity is defined as:

Acute test failure is defined as lethality to 50% or more of the test organisms exposed to 100% effluent or >1.0 TUa for *Ceriodaphnia dubia* 48-hour and fathead minnow 96-hour test. The 48-hour and 96-hour effluent value must be <1.0 TUa to indicate a passing test. Any 48-hour or 96-hour effluent value of >1.0 TUa will constitute a failure. Tests in which the control survival is less than 90% are invalid and must be repeated.

| Acute WET requirements for Outfall 000 | | | | | | | | | |
|--|--|-------|-----|-----|-----|------|--|--|--|
| Effluent Dilution | 0%(Control) | 12.5% | 25% | 50% | 75% | 100% | | | |
| Dilution Water | Red River of the North | | | | | | | | |
| Species and Test Type | Ceriodaphnia dubia - 48 Hour Acute - Static Renewal - 20°C | | | | | | | | |
| | Fathead minnow - 96 Hour Acute - Static Renewal - 20°C | | | | | | | | |
| Endpoint | TUa | | | | | | | | |
| Compliance Point | End-of-pipe | | | | | | | | |

If toxicity occurs in a routine test, an additional test shall be initiated within 14 days from the date of the initial toxicity findings. Should there be no discharge during a specified sampling time frame; sampling shall be performed as soon as there is a discharge. Should toxicity occur in the second test, testing shall be conducted at a frequency of once a month and the implementation of a <u>5.Toxicity Reduction Evaluation (TRE)</u> shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit.

The permittee shall report the following results of each toxicity test on the DMR for that reporting period:

Pimephales promelas (Fathead Minnow)

a. Report the highest TUa for Fathead minnow, Parameter No. TSN6C.

Ceriodaphnia dubia (Water Flea)

a. Report the highest TUa for Ceriodaphnia dubia, Parameter No. TSM3B.

2. Chronic Toxicity Testing

The chronic toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," EPA-821-R-02-013 (Fourth Ed., October 2002). Test species shall consist of freshwater fleas, Ceriodaphnia dubia and fathead minnows, Pimephales promelas.

No chronic toxicity limits are imposed on this permit; however WET tests shall be performed at least once per species per discharge season.

| Chronic WET requirements for Outfall 001 and Outfall 002 | | | | | | | | | |
|--|---|-------|-------|-----|-----|------|--|--|--|
| Implementation | Monitoring Only | | | | | | | | |
| Effluent Dilution | 0%(Control) | 6.25% | 12.5% | 25% | 50% | 100% | | | |
| Dilution Water | Red River of the North | | | | | | | | |
| Species and | Ceriodaphnia dubia – 7-Day Chronic – Static Renewal – 25°C | | | | | | | | |
| Test Type | Fathead Minnow – 7-Day Chronic – Static Renewal – 25°C | | | | | | | | |
| Endpoint | Survival and Reproduction (Ceriodaphnia dubia) – IC25 reported as TUc | | | | | | | | |
| | Larval Growth and Survival (Fathead Minnow) – IC25 reported as TUc | | | | | | | | |
| Compliance Point | End-of-pipe | | | | | | | | |

The permittee shall report the following results of each toxicity test on the DMR for that reporting period:

Pimephales promelas (Fathead Minnow)

a. Report the highest TUc for Fathead minnow, Parameter No. TTP3B

Ceriodaphnia dubia (Water Flea)

a. Report the highest TUc for Ceriodaphnia dubia, Parameter No. TTB6C.

3. Reduced Monitoring For Toxicity Testing

a. Alternating Species

If the results of a minimum of four consecutive samples taken over at least a 12 month period indicate no toxicity, the permittee may request the department for a test reduction. This reduction would only be testing one species per sampling frequency. If fathead minnows are used first then the next test would be *C. dubia* or vice versa and continue alternating. The department may approve or deny the request, based on the biomonitoring results and other available information. If the request is approved, the test procedures are to be the same as outlined in 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing.

If toxicity occurs in any single species test the provision for alternating species shall be immediately revoked and 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing shall be followed in whole.

b. Monthly Testing

If the results of <u>5. Toxicity Reduction Evaluation (TRE)</u> have been accepted by the department or a period of time has indicated no toxicity, the permittee may request the department to allow a reduction from monthly to quarterly toxicity testing for both species. The department may approve or deny the request, based on the bio-monitoring results and other available information. If the request is approved, the test procedures are to be the same as outlined in <u>1. Acute Toxicity Testing</u> and/or <u>2. Chronic Toxicity Testing</u>.

4. Reporting Requirements

Test results shall be submitted with the Discharge Monitoring Report (DMR) form for each reporting period. The format for the report shall be consistent with the above reference manual(s) as outlined in the section "Report Preparation and Test Review." Each lab generated report shall document the findings for each species reference toxicity testing chart.

5. Toxicity Reduction Evaluation (TRE)

If toxicity is detected, and it is determined by the department that a TRE is necessary, the permittee shall be so notified and shall initiate a TRE immediately thereafter. A TRE shall reference the latest revision of "<u>Technical Support Document For Water Quality-based Toxics Control,</u>" EPA/505/2-90-001 – PB91-127415 (March 1991). The purpose of the TRE will be to establish the cause of the toxicity, locate the source(s) of the toxicity, and control or provide treatment for the toxicity.

If the TRE establishes that the toxicity cannot be eliminated by the current treatment system, the permittee shall submit a proposed compliance plan to the department. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the department, this permit may be reopened and modified.

If the TRE shows that the toxicity is caused by a toxicant(s) that may be controlled with specific numerical limitations or proper discharge management as approved by the department, the permittee may:

- 1. Submit an alternative control program for compliance with the numerical requirements; or
- 2. If necessary, provide a modified biomonitoring protocol which compensates for the pollutant(s) being controlled numerically.

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

Failure to conduct an adequate TRE, or failure to submit a plan or program as described above, or the submittal of a plan or program judged inadequate by the department, shall in no way relieve the permittee from maintaining compliance with the whole effluent toxicity requirements of this permit.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2019.05.29

A. Representative Sampling (Routine and Non-Routine Discharges)

All samples and measurements taken shall be representative of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited under Part I Effluent Limitations and Monitoring requirements of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with <u>B. Test Procedures</u>. The permittee must report all additional monitoring in accordance with <u>D. Additional Monitoring</u>.

B. Test Procedures

The collection and transportation of all samples shall conform with EPA preservation techniques and holding times found in 40 CFR 136. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

C. Recording of Results

Records of monitoring information shall include:

- 1. the date, exact place and time of sampling or measurements;
- 2. the name(s) of the individual(s) who performed the sampling or measurements;
- 3. the name of the laboratory;
- 4. the date(s) and time(s) analyses were performed;
- 5. the name(s) of the individual(s) who performed the analyses;
- 6. the analytical techniques or methods used; and
- 7. the results of such analyses.

D. Additional Monitoring

If the discharge is monitored more frequently than this permit requires, all additional results, if in compliance with <u>B. Test Procedures</u>, shall be included in the summary on the Discharge Monitoring Report.

E. Reporting of Monitoring Results

- 1. Monitoring results shall be summarized and reported to the department using Discharge Monitoring Reports (DMRs). If no discharge occurs during a reporting period, "No Discharge" shall be reported. The permittee must submit DMRs electronically using the electronic information reporting system unless requirements in subsection 3 are met.
- 2. Prior to December 21, 2020, the permittee may elect to electronically submit the following compliance monitoring data and reports instead of mailing paper forms. Beginning December 21, 2020, the permittee must report the following using the electronic reporting system:
 - a. General permit reports [e.g., notices of intent (NOI); notices of termination (NOT); no exposure certifications (NOE)];
 - b. Municipal separate storm sewer program reports;
 - c. Pretreatment program reports;
 - d. Sewer overflow/bypass event reports; and
 - e. Clean Water Act 316(b) annual reports

- 3. The permittee may seek a waiver from electronic reporting. To obtain a waiver, the permittee must complete and submit an Application for Temporary Electronic Reporting Waiver form (SFN 60992) to the department. The department will have 120 days to approve or deny the waiver request. Once the waiver is approved, the permittee may submit paper versions of monitoring data and reports to the department.
 - a. One of the following criteria must be met in order to obtain a waiver. The department reserves the right to deny any waiver request, even if they meet one of the criteria below.
 - 1. No internet access,
 - 2. No computer access,
 - 3. Annual DMRs (upon approval of the department),
 - 4. Employee turnover (3-month periods only), or
 - 5. Short duration permits (upon approval of the department)

All reports must be postmarked by the last day of the month following the end of each reporting period. All original documents and reports required herein shall be signed and submitted to the department at the following address:

ND Department of Environmental Quality Division of Water Quality 918 East Divide Ave Bismarck ND 58501-1947

F. Records Retention

All records and information (including calibration and maintenance) required by this permit shall be kept for at least three years or longer if requested by the department or EPA.

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.

B. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

C. Planned Changes

The department shall be given advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance. Any anticipated facility expansions, production increase, or process modifications which might result in new, different, or increased discharges of pollutants shall be reported to the department as soon as possible. Changes which may result in a facility being designated a "new source" as determined in 40 CFR 122.29(b) shall also be reported.

D. 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. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

E. Signatory Requirements

All applications, reports, or information submitted to the department shall be signed and certified.

All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

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 a duly authorized representative only if:

The authorization is made in writing by a person described above and submitted to the department; and

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.

If an authorization under <u>E. Signatory Requirements</u> is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the department prior to or together with any reports, information, or applications to be signed by an authorized representative.

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."

F. Twenty-four Hour Notice of Noncompliance Reporting

- 1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The following occurrences of noncompliance shall be included in the oral report to the department at 701.328.5210:
 - a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit under G. Bypass of Treatment Facilities;
 - b. Any upset which exceeds any effluent limitation in the permit under H. Upset Conditions; or
 - c. Violation of any daily maximum effluent or instantaneous discharge limitation for any of the pollutants listed in the permit.
- 2. A written submission shall also be provided within five days of the time that the permittee became aware of the circumstances. The written submission shall contain:
 - 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 recurrence of the noncompliance.

Reports shall be submitted to the address in <u>Part II.E. Reporting of Monitoring Results</u>. 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 department at 701.328.5210 as identified above.

All other instances of noncompliance shall be reported no later than at the time of the next Discharge Monitoring Report submittal. The report shall include the four items listed in this subsection.

G. Bypass of Treatment Facilities

- 1. <u>Bypass not exceeding limitations</u>. 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 any of the following provisions in this section.
- 2. Bypass exceeding limitations-notification requirements.
 - 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 bypass.
 - b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under F. Twenty-four Hour Notice of Noncompliance Reporting.
- 3. <u>Prohibition of Bypass.</u> Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b. 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

c. The permittee submitted notices as required under the <u>1. Anticipated Bypass</u> subsection of this section.

The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three (3) conditions listed above.

H. Upset Conditions

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph 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.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1. An upset occurred and the permittee can identify its cause(s);
- 2. The permitted facility was, at the time being, properly operated;
- 3. The permittee submitted notice of the upset as required under <u>F. Twenty-four Hour Notice of Noncompliance Reporting</u> and
- 4. The permittee complied with any remedial measures required under <u>I. Duty to Mitigate</u>.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.

J. Removed Materials

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the state. The permit issuing authority shall be contacted prior to the disposal of any sewage sludges. At that time, concentration limitations and/or self-monitoring requirements may be established.

K. Duty to Reapply

Any request to have this permit renewed should be made six months prior to its expiration date.

IV. GENERAL PROVISIONS

A. Inspection and Entry

The permittee shall allow department and EPA representatives, at reasonable times and upon the presentation of credentials if requested, to enter the permittee's premises to inspect the wastewater treatment facilities and monitoring equipment, to sample any discharges, and to have access to and copy any records required to be kept by this permit.

B. 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 EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

C. Transfers

This permit is not transferable except upon the filing of a Statement of Acceptance by the new party and subsequent department approval. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the department of the possible change.

D. New Limitations or Prohibitions

The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307(a), or Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations even if the permit has not yet been modified to incorporate the requirements.

E. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. 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.

F. 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.

G. State Laws

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 510 of the Act.

H. 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 Act.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor 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.

J. 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.

