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

Public Notice Date: 8/14/2024 Public Notice Number: ND-2024-023

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: 3/21/2024 Application Number: ND0020621

Applicant Name: United States Air Force GF

Mailing Address: 319 CES/CEIEC 525 Tuskegee Airmen Blvd, Grand Forks AFB, ND 58205

Telephone Number: 701.747.6156

Proposed Permit Expiration Date: 9/30/2029

Facility Description

The reapplication is for a four-cell wastewater lagoon system which services the Grand Forks Air Force Base. The lagoon system is located in the S1/2 of Section 29, Township 152N, Range 52W. Any discharge would be from outfall 01A or 01B and enter a drainage ditch which flows to Kelly's Slough, a class III 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. For further information on making public comments/public comment tips please visit: https://deq.nd.gov/PublicCommentTips.aspx. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 4201 Normandy Street, Bismarck ND 58503-1324 or by calling 701.328.5210.

All comments received by September 14, 2024 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.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations, contact the NDDEQ Non-discrimination Coordinator at 701-328-5210 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

FACT SHEET FOR NDPDES PERMIT ND-0020621

PERMIT REISSUANCE

UNITED STATES AIR FORCE
GRAND FORKS AIR FORCE BASE

DATE OF THIS FACT SHEET – JUNE 2024

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.

TABLE OF CONTENTS

BACKGROUND INFORMATION

Table 1 – General Facility Information

Permittee:	United States Air Force
Facility Name and Address:	Grand Forks Air Force Base 319 CES/CD 525 Tuskegee Amn Blvd Grand Forks AFB, ND 58205-6434
Permit Number:	ND-0020621
Permit Type:	Major Federal Facility, Permit Reissuance
Type of Treatment:	Waste Stabilization Ponds: Anaerobic Treatment, Stabilization Ponds, Evaporation, Grinding, Sedimentation (settling)
SIC Code(s):	9711 – National Security 4952 – Sewerage Systems
NAICS Code:	928110 – National Security 221320 – Sewage Treatment Facilities
Discharge Location(s):	Outfall 01A: Kelly's Slough, Class III Latitude: 47.947206 Longitude: -97.330953 Outfall 01B: Kelly's Slough, Class III Latitude: 47.947372 Longitude: -97.328408
Hydrologic Code:	09020307 – Turtle
Population:	Approximately 4,000

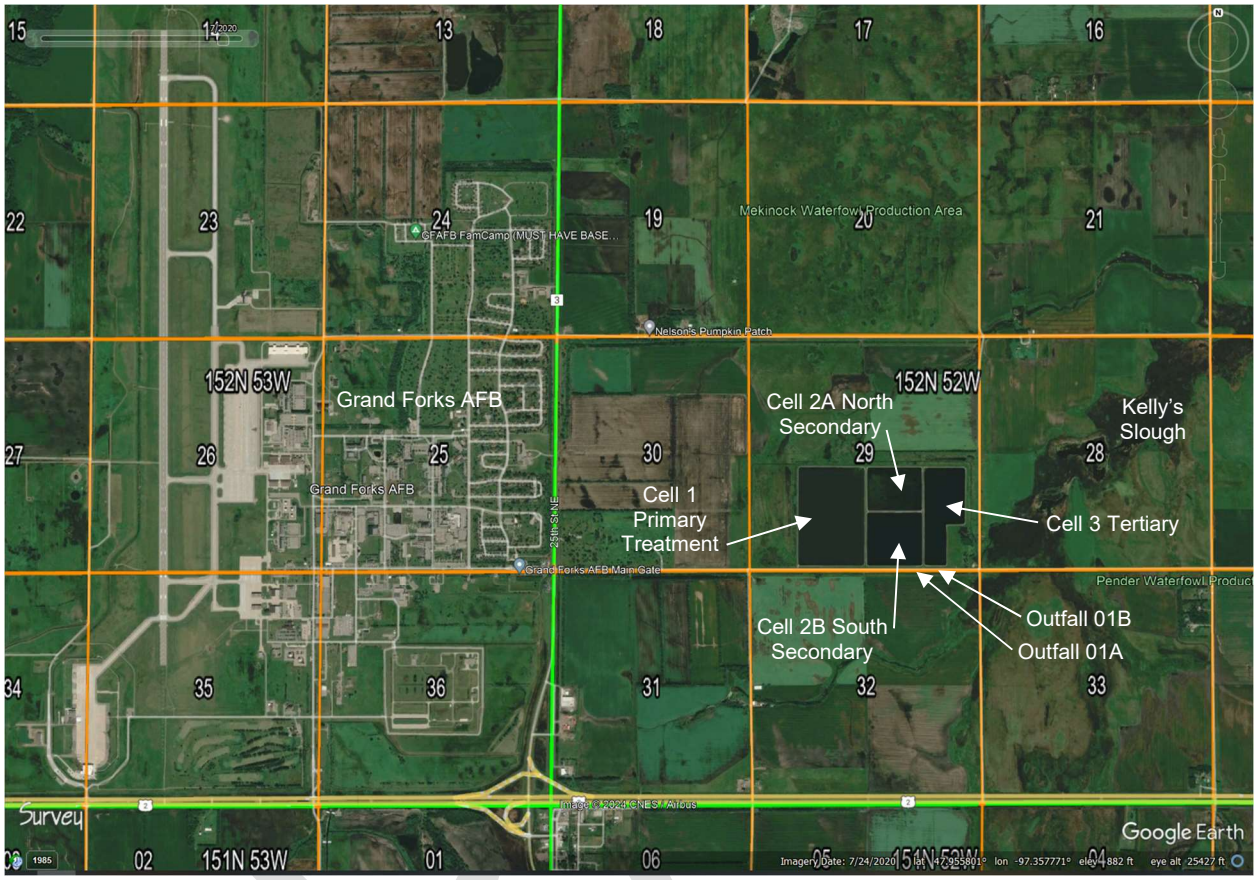

Figure 1 – Aerial Photograph of the Grand Forks Air Force Base Wastewater Treatment Facility, Grand Forks AFB, ND (Google Earth Imagery Date 7/24/2020).

FACILITY DESCRIPTION

Grand Forks Air Force Base (AFB) is located in Mekinock and Blooming Townships in Grand Forks County, North Dakota near the junction of U.S. Highway 2 and Grand Forks County Road B3. The base is situated 15 miles west of the City of Grand Forks and the Red River, which flows northward into Lake Winnipeg in Canada. The Turtle River, a tributary of the Red River, flows on the north edge of the base, and Hazen Brook, an intermittent stream, flows immediately to its south. The main base encompasses 4,830 acres.

Grand Forks AFB is home to the 319TH Reconnaissance Wing (RW). The Grand Forks AFB community consists of approximately 4,000 military and civilian personnel, and their family members, as well as Department of Defense and Department of Homeland Security personnel. The 319TH RW serves as the Grand Forks AFB host unit and maintains the base property. The mission of the 319TH RW is to provide base operating and direct operation support to wing personnel and tenants units. The 319TH RW no longer provides operation and support for geographically separated units.

The 319TH RW trains, deploys, and redeploys over 1,300 Airmen in support of Air Expeditionary Force and combatant commander requirements. It provides facilities and equipment support for the department of Homeland Security, and Customs and Border Protection. The 319TH RW also provides logistics, medical, civil engineer, contracting, communications, security and force support functions as well as facilities/equipment.

The Grand Forks AFB wastewater collection system consists of more than fifty miles of sanitary mains. The collection system services the base's industrial, administrative, community support (churches, grocery and department stores, childcare center, recreation facilities, etc.), elementary schools, and family housing facilities. The collection system utilizes gravity and nine satellite lift stations to transfer water to the main lift station. The main lift station pumps the wastewater to the waste stabilization pond system via force mains which are located on the south side of the Primary Treatment cell. Beginning January of 2019, the wastewater collection system was privatized.

Industrial-type operations at the base include minor maintenance of aircraft, ground vehicles, and support facilities. Most maintenance (including major maintenance) is conducted at facilities outside of the Grand Forks AFB. Periodic routine maintenance and repair of aircraft and vehicles generates waste fuel, oil, and solvents (including jet fuel, engine oil, dry cleaning fluid, and acetone). Other types of wastes generated during such operations include paint, paint thinners, and small amounts of pesticides. The 319TH RW also has a process in place to manage hazardous material on the base. The process includes knowing what material is on base and how much, the approved use of the material, overall usage of the material, and waste disposal.

Currently no activities on Grand Forks AFB are subject to categorical pretreatment standards under 40 CFR Chapter I, Subchapter N. Pollution prevention initiatives include operation and maintenance of oil/water separators in industrial areas draining to the sanitary sewer system, the use of grit chambers for aircraft and vehicle washing activities and parts washers using a non-hazardous solvent which is recycled on base.

Treatment Processes

Grand Forks AFB treats wastewater with a four-cell waste stabilization pond system. The waste stabilization pond system is operated by the 319TH RW and is not privatized. The Primary Treatment cell is located on the west side of the pond system and has a surface area of seventy-seven acres. The North Secondary cell has a surface area of thirty acres. The South Secondary cell has a surface area of thirty-seven acres. The Tertiary cell is located furthest east and has a surface area of forty-one acres.

Raw wastewater (sewage) is sent to the Primary Treatment cell to facilitate the breakdown of organic matter. From there the partially treated wastewater is transferred to the North Secondary or South Secondary cells where detention time is used to continue the wastewater treatment process. Further treatment and/or storage can be achieved in the Tertiary cell.

Discharge and Outfall Description

Discharges would be from the South Secondary cell (Outfall 01A) and the Tertiary cell (Outfall 01B). Outfall 01A has a maximum flow rate of 9.72 million gallons per day (MGD) and an average flow rate of 6.43 MGD. Outfall 01B has a maximum and average flow rate of 10.65 and 6.06 MGD, respectively. Both outfalls discharge into an adjacent ditch directed to Kelly's Slough. Grand Forks Air Force Base, including the lagoon system, is located at the headwaters of Kelly's Slough.

There are two active discharge outfalls associated with the facility – 01A and 01B. In the 2009 permit renewal, discharge points 002, 003, and 004 were deactivated. The following outfalls were dismantled, reclaimed and were deactivated prior to the 2004 permit renewal: 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019 and 020. The description of the active outfalls is provided below:

Outfall 01A – Active – Final Outfall

Latitude: 47.947206	Longitude: -97.330953	County: Grand Forks	
Township: 152N	Range: 52W	Section: 29	QQ: DCD
Receiving Stream: Kelly's Slough		Classification: Class III	
Outfall Description: Effluent limitations for the South Secondary lagoon cell. Treated effluent from the lagoon cell flows to a ditch leading to Kelly's Slough.			

Outfall 01B – Active – Final Outfall

Latitude: 47.947372	Longitude: -97.330408	County: Grand Forks	
Township: 152N	Range: 52W	Section: 29	QQ: DDC
Receiving Stream: Kelly's Slough		Classification: Class III	
Outfall Description: Effluent limitations for the Tertiary lagoon cell. Treated effluent from the lagoon cell flows to a ditch leading to Kelly's Slough.			

PREVIOUS PERMIT STATUS

The department issued the current permit for this facility on October 1, 2019. The permit includes effluent monitoring requirements for:

- Five-day biochemical oxygen demand (BOD_5),
- pH,
- Total suspended solids (TSS),
- Ammonia as nitrogen,
- *Escherichia coli (E. coli),*
- Oil and Grease,
- Temperature,
- Whole effluent toxicity (WET),
- Metals, Cyanide and Phenols
- Nitrogen, Total,
- Phosphorus, Total,
- Flow, and
- Volume Drained

The current permit will expire September 30, 2024.

The department was in contact with the United States Air Force – Grand Forks to obtain information to reissue the permit. The department received EPA application Form 1 and Form 2C on March 21, 2024 via email – a hardcopy followed in the mail. The application was accepted by the department on March 21, 2024. Effluent sample data has been provided to the department through official laboratory reports, discharge monitoring reports, and the permit application Form 2C.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

The department's assessment of compliance is based on review of the facility's Discharge Monitoring Reports (DMRs) and inspections conducted by department staff. The DMRs for the monitoring period from October 1, 2019 to May 31, 2024 were reviewed. The facility discharged once during that period – September 16, 2020 to September 18, 2020. One DMR related to the September 2020 discharge needs to be updated as a result of the review. The department is coordinating with the facility and one DMR will be updated to include the No Data Indicator "Below Detect" for the Oil and Grease parameter. The department's Division of Water Quality conducts yearly inspections of the facility. Four inspections of the facility were conducted during the current permit cycle. Department staff last conducted a non-sampling compliance inspection on June 15, 2023.

Bypasses

According to department records, no bypass occurred during the past permit cycle.

Past Discharge Data

The concentration of pollutants in the discharge was reported using DMR forms. One discharge occurred between October 1, 2019 and May 31, 2024 for Outfall 01B. The effluent is characterized as shown in Table 2. No discharge occurred during the previous permit for Outfall 01A.

Table 2 – DMR Data Summary for Outfall 01B (October 1, 2019 to May 31, 2024)

Parameter	Units	Range	Average	Permit Limit	Number of Exceedances
Effluent					
Biological Oxygen Demand (BOD_5)	mg/l	3.33 –10	6.65	25 – Avg 45 – Max	0
pH	SU	8.9 – 9.3	NA	6.0 to 9.0	1
Total Suspended Solids (TSS)	mg/l	2.5 – 5.6	4.05	30 – Avg 45 – Max	0
Ammonia as N	mg/l	0.117 – 0.117	0.117	WQS	0
Escherichia coli (*E. coli*)	Colonies per 100 ml	3.1 – 105	18.04	126 – Avg 409 – Max	0

Parameter	Units	Range	Average	Permit Limit	Number of Exceedances
Oil & Grease, Visual		No Visual Sheen	No Visual Sheen	No Visual Sheen	NA
Oil & Grease	mg/l	Conditional, NA <1.21 [1]	Conditional, NA <1.21 [1]	10 mg/l	NA 0 [1]
Nitrogen, Total	mg/l	0.167 – 0.167	0.167	NA	NA
Phosphorus, Total	mg/l	0.246 – 0.246	0.246	NA	NA
Effluent Flow	MGD	7	7	NA	NA
Total Drain	MGAL	21	21	NA	NA
Discharge Duration	Days	3	3	NA	NA
Temperature	°C	23.2	23.2	NA	NA
Whole Effluent Toxicity (WET)	TUa	ANC [2]	ANC [2]	< 1	0 [2]
Antimony, Total	mg/l	ANC	ANC	NA	NA
Arsenic, Total	mg/l	0.00651 – 0.00651	0.00651	NA	NA
Beryllium, Total	mg/l	ANC	ANC	NA	NA
Cadmium, Total	mg/l	< 0.000552	< 0.000552	NA	NA
Chromium, Total	mg/l	< 0.00163	< 0.00163	NA	NA
Copper, Total	mg/l	0.00271 – 0.00271	0.00271	NA	NA
Cyanide, Total	mg/l	0.001 – 0.001	0.001	NA	NA
Hardness as CaCO3	mg/l	1350 – 1350	1350	NA	NA
Lead, Total	mg/l	< 0.002	< 0.002	NA	NA
Mercury, Total	mg/l	< 0.0001	< 0.0001	NA	NA
Nickel, Total	mg/l	< 0.001	< 0.001	NA	NA
Phenols, Total	mg/l	< 0.008	< 0.008	NA	NA
Selenium, Total	mg/l	0.00786 – 0.00786	0.00786	NA	NA
Silver, Total	mg/l	< 0.001	< 0.001	NA	NA
Thallium, Total	mg/l	ANC	ANC	NA	NA
Zinc, Total	mg/l	0.013 – 0.013	0.013	NA	NA

Parameter	Units	Range	Average	Permit Limit	Number of Exceedances
Notes:					
The United States Air Force GF discharged one (1) time during the above time frame (September 2020). NA stands for Not Applicable. ANC stands for Analysis Not Conducted. 1 Sample was tested even though Conditional, NA. Results below detect. 2 Change in personnel caused lapse in container order scheduling and shipping to facility.					

PROPOSED PERMIT LIMITS

The United States Air Force – Grand Forks is subject to secondary treatment standards. The standards and state regulations define technology-based effluent limits for treatment plants treating domestic sewage. These effluent limits are given in 40 CFR 133 and NDAC 33.1-16-01-30. These regulations are performance standards that constitute all known, available, and reasonable methods of prevention, control, and treatment of domestic sewage. The secondary treatment limits specified in 40 CFR Part 133 for BOD_5, TSS, pH, and Percent Removal provided in Table 3.

Table 3: 40 CFR 133 Technology-Based Effluent Limitations

Parameter	30-Day Average	7-Day Average
BOD_5	30 mg/l	45 mg/l
TSS	30 mg/l	45 mg/l
pH	Remain between 6.0 to 9.0	
Percent Removal	85% BOD_5 and TSS	

NDAC 33.1-16-01-14(3)(c)(1) allows for adjustment of the secondary treatment criteria to reflect site specific considerations. A five-day biochemical oxygen demand limit of twenty-five milligrams per liter (consecutive thirty-day average) may be applied in instances in which limits expressed in terms of secondary treatment standards would be impractical or deemed inappropriate to protect receiving waters. The department has determined that a 25 mg/l consecutive 30-day average foe BOD_5 is appropriate for this facility. Similar facilities with waste stabilization ponds have the same limit.

The department acknowledges that 40 CFR 133 requires an 85% removal for BOD_5 and TSS. The percent removal rate in 40 CFR 133 is dependent upon the influent and effluent samples being taken at approximately the same time. This facility utilizes waste stabilization ponds to treat wastewater. Due to the infeasibility of determining percent removal for waste stabilization ponds, the department has determined not to include the percent removal requirements for the facility. Influent and effluent samples would not be representative of the same wastewater.

Therefore, the department has calculated an estimated percent removal for this facility. The average BOD concentration of domestic wastewater is 220 mg/l (Metcalf & Eddy, Inc., 2nd Edition, 1979). Facilities meeting a discharge limitation of 25 mg/l BOD theoretically would be achieving 88% removal efficiency. The department would then assume that this facility, meeting the permit limitation of 25 mg/l, would therefore be meeting the percent removal requirement. The average TSS concentration of domestic wastewater is 220 mg/l (Metcalf & Eddy, Inc., 2nd Edition, 1979). Facilities meeting the discharge limitation of 30 mg/l TSS theoretically would be achieving 86% removal efficiency. The department would then assume that this facility, meeting the permit limitation of 30 mg/l, would therefore be meeting the percent removal requirement.

Additionally, in the absence of a federal standard, limitations may be generated using Best Professional Judgment (BPJ) to ensure reasonable control technologies are used to prevent potential harmful effects of the discharge. The department also must consider and include limitations necessary to protect water quality standards applicable to the receiving waters. The department determined effluent limitations for ammonia as nitrogen, *E. coli*, oil and grease, and acute Whole Effluent Toxicity (WET), are also appropriate for this type of facility. Other major facilities in the state have similar requirements.

The effluent limitations and the basis for the limitations are provided in Table 4 below.

Table 4: Proposed Effluent Limitations Basis – Outfalls 01A and 01B

Effluent Parameter	30-Day Average	7-Day Average	Daily Maximum	Basis [a]
Biological Oxygen Demand (BOD_5), mg/L [b]	25	45	N/A	NDAC 33.1-16-01-14(3)(c)(1); 40 CFR 133.102(a)(2)
Total Suspended Solids (TSS), mg/L [c]	30	45	N/A	40 CFR 133.102(b)
pH, SU [d]	Shall remain between 6.0 to 9.0			40 CFR 133.102(c); WQS
E. coli, #/100 mL [e]	126	N/A	409	WQS, Previous Permit
Ammonia as N, mg/L	Refer to the Ammonia Table (Table 6) for each Outfall			WQS, Previous Permit
Oil & Grease – Visual [f]	N/A	N/A	N/A	WQS, Previous Permit
Oil & Grease, mg/L [f]	N/A	N/A	10	BPJ, Previous Permit
Whole Effluent Toxicity (WET), TU_a	< 1.0			40 CFR 122.44(d)(1)(iv-v) WQS Previous Permit

Notes:

a.	The basis of the effluent limitations is given below: "BPJ" refers to best professional judgment. "Previous Permit" refers to limitations in the previous permit. NPDES regulations **40 CFR Part 122.44(l)(1) Reissued permits** require that when a permit is renewed or reissued, interim limitations, standards or conditions must be at least as stringent as

Table 4: Proposed Effluent Limitations Basis – Outfalls 01A and 01B

	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.
b.	The limits for BOD_5 are based on 40 CFR 133.102(a). "Secondary Treatment Standards" and NDAC Chapter 33.1-16-01-14(3)(c)(1) and are the same as the previous permit.
c.	The limits for TSS are based on 40 CFR 133.102(b) "Secondary Treatment Standards" and are the same as the previous permit.
d.	The limits for pH are based on 40 CFR 133.102(c) "Secondary Treatment Standards" and the WQS for a class III stream.
e.	*E. coli* shall not exceed 126 organisms per 100 ml as a geometric mean of representative samples collected during any 30-day consecutive period, nor shall samples exceed 409 organisms per 100 ml for any one day. The limit for *E. coli* shall only apply during the recreational season, April 1 through October 31. Averages for *E. coli* shall be determined as a geometric mean.
f.	A daily visual check shall be performed. There shall be no discharge of oily wastes that produce a visible sheen on the surface of the receiving water. If present, a grab sample shall be analyzed for oil and grease to ensure compliance with the concentration limitation.

SELF-MONITORING REQUIREMENTS

All effluent parameters will be sampled at a point leaving outfalls 01A and 01B but prior to entering waters of the state. A pre-discharge sample must be taken prior to the start of any discharge and reported to the department. The pre-discharge sample can represent the first week discharge sample. An additional sample of the actual discharge shall be taken and analyzed on a weekly basis for each additional week of the discharge.

Table 5: Self-Monitoring Requirements – Outfalls 01A and 01B

Effluent Parameter	Frequency	Sample Type [a]
BOD_5, mg/L	1/Week	Grab
TSS, mg/L	1/Week	Grab
pH, SU	1/Week	Grab
E. coli, cfu/100ml [b]	1/Week	Grab
Ammonia as N, mg/L	1/Week	Grab
Oil & Grease – Visual	1/Day	Visual
Oil & Grease, mg/L	Conditional	Grab
Whole Effluent Toxicity (WET), TU_a	1/Quarter	Grab
Nitrogen, Total mg/L [c]	1/Month	Grab
Nitrogen, Total lb/day [c]	1/Month	Calculated
Phosphorus, Total (as P) mg/L	1/Month	Grab
Phosphorus, Total (as P) lb/day	1/Month	Calculated
Metals, mg/L [d]	1/Year	Grab
Temperature °C	1/Week	Grab
Effluent Flow, MGD	1/Day	Calculated
Total Drain, MG	1/Month	Calculated

Notes:

a. Refer to Appendix B for definitions.

b. This parameter shall be monitored for discharges from April 1 through October 31.

c. Total Nitrogen is a combination of Nitrate, Nitrite, and Total Kjeldahl Nitrogen (TKN).

d. Refer to 40 CFR 122 Appendix D, Table III

A total hardness of the receiving stream needs to be determined every time metals are sampled and analyzed. The hardness is used to calculate parameter criteria according to the state water quality standards. This sample shall be collected upstream of the final discharge site. If an upstream sample is not feasible (i.e. no flow) then the hardness of the effluent shall be sampled.

Stipulations:

A pre-discharge sample must be taken prior to the start of any discharge. A grab sample shall be tested for BOD_5, TSS, pH, *E. coli*, Temperature, and Ammonia as N. This pre-discharge sample shall represent the first week discharge sample. An additional grab sample of the actual discharge shall be taken and analyzed on a weekly basis for the duration of the discharge.

At a minimum, one (1) grab sample shall be taken each week of the discharge and analyzed for BOD5, TSS, *E. coli*, pH, Ammonia as N, and all parameters associated with Ammonia as N (Table 6). The predischarge sample may be used for the sample required for the first week of the discharge. The start and end dates of the discharge shall be recorded. The total amount of water discharged shall be determined either by using a flow-measuring device or by recording the water-level drop in the pond. All samples and measurements taken shall be

representative of the discharge.
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.
Best Management Practices (BMPs) are to be utilized so that there shall be no discharge of floating debris, oil, scum, and other floating materials in sufficient amounts to be unsightly or deleterious, or oil wastes that produce a visible sheen on the surface of the receiving water. All discharges shall be made in such a manner to minimize any possible adverse impacts on the receiving stream and downstream landowners.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota Standards of Quality for Waters of the State (NDAC Chapter 33.1-16-02.1), or Water Quality Standards (WQS), 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.

Kelly's Slough is not specifically mentioned in the Standards of Quality for Waters of the State and is considered a class III stream. The quality of water in class III streams must be suitable for agricultural and industrial uses. Streams in this class generally have low average flows with prolonged periods of no flow. During periods of no flow, they are of limited value for recreation, and fish and aquatic biota. The quality of these waters must be maintained to protect secondary contact recreation uses (e.g., wading), fish and aquatic biota, and wildlife uses.

The unnamed tributary to Kelly's Slough (ND-09020307-017-S_00) is not listed as impaired in the *North Dakota 2020-2022 Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads* Report. The reach of Kelly's Slough further downstream, identified as ND-09020307-016-S_00, is listed as impaired. This stream reach is listed as fully supporting but threatened for the designated use of fish and other aquatic biota due to impairment by cadmium and selenium. The TMDL priority for this stream reach is low.

The department proposes to continue with the permit requirement of yearly metals sampling, which includes cadmium and selenium and without a Waste Load Allocation (WLA) for either. All cadmium sample results taken during the previous permit were below method detection level. All selenium sample results taken during the previous permit were below the acute aquatic life water quality standard but above the chronic aquatic life water quality standard. The facility, as described above in the Facility Description, houses a populus a fraction of the size of the capacity of the lagoon system leaving a stable to declining trend of wastewater generation. These factors lead to any potential discharge causing at most, minimal impacts to the water body. Should any of these factors significantly change, the department can reevaluate the facility's impacts to the water body and address any permit updates accordingly.

Numerical Criteria for the Protection of Aquatic Life and Recreation

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 Section 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.

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

pH

Discharges to class III streams shall have an instantaneous limitation between 6.0 s.u. and 9.0 s.u. as per NDAC33.1-16-02.1-09 Table 1.

Escherichia coli (E. coli)

The department has reviewed the effluent data and sampling frequency for *E. coli*. Based on the WQS, the department proposes to continue with a 126 organisms per 100 ml as a monthly geometric mean and 409 organisms per 100 ml as a daily maximum limitation with a sampling frequency of once per week. The WQS only applies during the recreation season from May 1 through September 30. The department shall extend the standard from April 1 to October 31. The department used BPJ to extend this period to ensure the recreation season is covered. This is based on NDAC 33.1-16-02.1 and BPJ.

Oil & Grease

The WQS state that waters of the state must be free from oil or grease attributable to wastewater which causes a visible sheen or film upon the water. Using BPJ the department has determined that a daily maximum limitation of 10 mg/l is appropriate for this type of facility if a visible sheen is detected. Other treatment systems in the state have similar limitations.

The department proposes to continue visual checks for sheen with a sampling frequency of daily. Should a sheen occur, the department proposes to continue with a 10 mg/l (daily maximum) limitation.

Ammonia as Nitrogen

The department considers the potential for contaminants (ammonia, metals, and organic chemicals) commonly associated with domestic wastewater facilities to compromise a water quality standard. The most prominent parameter of concern with domestic wastewater discharges and the treatment of other organic-type waste is ammonia. Ammonia is generated during the decay or the process of stabilizing organic materials that commonly occur during domestic wastewater treatment.

Ammonia presents both acute and chronic toxicity to aquatic life at variable levels depending on in stream conditions (pH, temperature, and ammonia). 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.

For intermittent discharges discharging less than seven (7) days, the department has determined that using the 4-day chronic standard over the 30-day average standard is appropriate for determining compliance. The "*Oncorhynchus* absent" acute water quality standard is applicable to discharges from the facility due to the absence of the *Oncorhynchus* genus of fish in the receiving water. The department has determined to continue with the

ammonia effluent limitations using the updated WQS for Ammonia as N with a sampling frequency of weekly.

Table 6: Ammonia Effluent Limitations and Monitoring Requirements Outfalls 001

	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Ammonia [1]	†	NA	‡
Effluent Temperature, °C [2]	NA	NA	NA
Effluent pH, S.U. [2]	NA	NA	NA

1 Calculations must be performed for each discharge sample. If an exceedance is detected on any single sample, the exceedance must be reported on the DMR.

2 Sample must be collected/recorded the same day as the ammonia sample. Effluent temperature and pH are used for the calculation.

† Chronic Standard (Average Monthly Limit)
The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed the numerical value given by the following formula:

$$2.5 \times 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times \left(2.126 \times 10^{0.028\times(20-MA\ \ (T,7))}\right)$$

Effluent pH and Temperature is used for the calculation

‡ Acute Standard (Daily Maximum Limit)
The total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:

$$0.7249 \times \left(\frac{0.0114}{1+10^{7.204-pH}} + \frac{1.6181}{1+10^{pH-7.204}}\right) \times MIN\left(51.93, 23.12 \times 10^{0.036\times(20-T)}\right)$$

where *Oncorhynchus* are absent.

Stipulations

NA means Not Applicable.

The Ammonia as an effluent limitation shall be applied at end-of-pipe.

Whole Effluent Toxicity (WET)

The permittee must conduct *Ceriodaphnia dubia* (Water Flea) and *Pimephales promelas* (Fathead Minnow) WET tests. Acute toxicity testing shall occur once each calendar quarter. Acute test failure (LC_{50}) is defined as lethality of 50% or more of each test organism at any effluent concentration. No chronic toxicity testing will be required in the proposed permit.

The department is proposing to continue with TUa of less than 1 (<1) in order to meet the requirements of NDAC 33.1-16-02.1-08(a)(4), which states that "[a]ll waters of the state shall be:…Free from substances attributable to municipal, industrial, or other discharges or agricultural practices in concentrations or combinations 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 requirements in North Dakota pollutant discharge elimination system permits." This limit will need to be met at the end-of-pipe with no allowance for a zone of initial dilution (ZID), in accordance with NDAC 33.1-16-02.1, Appendix III, which states: "Acute whole effluent toxicity (WET) limits shall be achieved at the end-of-pipe with no allowance for a ZID."

If an acute toxicity test failure occurs, an additional test must be conducted within fourteen days of the initial toxicity findings. If the additional test fails, the department will determine whether a Toxicity Reduction Evaluation (TRE) is necessary.

Table 7: Acute WET Requirements

<table>
<tr><td colspan="7">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 calendar quarter 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 <i>Ceriodaphnia dubia</i> 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.</td></tr>
<tr><td>Implementation</td><td colspan="6">Limitations Imposed</td></tr>
<tr><td>Effluent Dilution</td><td>0%(Control)</td><td>12.5%</td><td>25%</td><td>50%</td><td>75%</td><td>100%</td></tr>
<tr><td>Dilution Water</td><td colspan="6">Kelly's Slough*</td></tr>
<tr><td rowspan="2">Species and Test Type</td><td colspan="6">Ceriodaphnia dubia - 48 Hour Acute - Static Renewal - 20°C</td></tr>
<tr><td colspan="6">Fathead minnow - 96 Hour Acute - Static Renewal - 20°C</td></tr>
<tr><td>Endpoint</td><td colspan="6">Mortality LC_{50} reported as TU_a</td></tr>
<tr><td>Compliance Point</td><td colspan="6">End-of-pipe</td></tr>
<tr><td>Sampling Frequency</td><td colspan="6">Quarterly. Samples from the discharge shall be collected during the first week of discharge each calendar year.</td></tr>
<tr><td>Sample Type</td><td colspan="6">Grab</td></tr>
<tr><td>Maximum Daily Limit (MDL)</td><td colspan="6"><1 TUa</td></tr>
<tr><td>Average Monthly Limit (AML)</td><td colspan="6"><1 TUa</td></tr>
<tr><td colspan="7">The use of alternate testing procedures or methods shall be approved in advance by the department (including, but not limited to the use of EDTA, CO_2 overlay, chlorine removal from the effluent sample if the effluent is chlorinated, etc.).</td></tr>
</table>

Table 7: Acute WET Requirements

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 toxicity occur in the second test, testing shall be conducted at a frequency of once a month and the implementation of a Toxicity Reduction Evaluation (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit. Should there be no discharge during a specified sampling time frame; sampling shall be performed as soon as there is a discharge.

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.

* When dangerous conditions exist for personnel (i.e., thin ice, melting ice, flooding, etc.) the permittee may utilize moderately hard reconstituted water upon request and approval by the department.

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

MONITORING REQUIREMENTS

The department requires monitoring, recording, and reporting (NDAC Section 33.1-16-01-(21 through 23) and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's limits.

Discharge Monitoring Report (DMR) Requirements

The proposed permit requires the permittee to monitor discharges and submit discharge monitoring reports (DMRs) to the department. DMRs summarize monitoring results obtained during specified monitoring periods. If no discharge occurs during a monitoring period, "no discharge" must be reported.

The proposed permit includes specified intervals for submitting monthly, quarterly, and yearly DMRs (Table 8). DMRs must be submitted electronically to the department in accordance with 40 CFR 127 unless otherwise waived and in compliance with 40 CFR 3. The requirement to

submit the 'A' reports monthly, 'W' reports quarterly, and 'M' reports yearly is similar to other major Non-Publicly Owned Treatment Works.

Table 8: DMR Submittal Requirements

Outfall	Report Designator	Report Type	Monitoring Periods	Submittal Frequency
01A	A	Conventional and Non-Conventional Pollutants, Flow and Volume Information	1/month	1/quarter
01B	A	Conventional and Non-Conventional Pollutants, Flow and Volume Information	1/month	1/quarter
01A	W	Whole Effluent Toxicity Results	1/quarter	1/quarter
01B	W	Whole Effluent Toxicity Results	1/quarter	1/quarter
01A	M	Metals	1/year	1/year
01B	M	Metals	1/year	1/year

Biosolids

Currently the department does not have the authority to regulate biosolids. Therefore, the permittee is required under the Direct Enforceability provision of 40 CFR §503.3(b) to meet the applicable requirements of the regulation.

Test Procedures

The collection and transportation of all samples shall conform to 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 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.

OTHER PERMIT CONDITIONS

LAGOON AND LIFT STATION INSPECTION REQUIREMENTS

The requirements for the lagoon and lift station inspections are well established. They are conducted to determine if a discharge is likely, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. The inspection requirements for the lagoon and lift station shall continue to be logged. These requirements shall continue under Part III. Compliance Responsibilities, B. Proper Operation and Maintenance.

INDUSTRIAL WASTE MANAGEMENT

The department was delegated authority in 2005 to administer the Pretreatment Program. The requirements for a Pretreatment Program are contained in Title 40, Part 403 of the Code of Federal Regulations (CFR). Under the requirements of the Pretreatment Program (40 CFR 403.8(f)(1)(iii)), the department is required to approve, condition, or deny new discharges or a

significant increase in the discharge for existing significant industrial users (SIUs) (40 CFR 403.8 (f)(1)(i)).

The requirement that the Grand Forks AFB maintains an Industrial Waste Management (IWM) program shall be continued in the permit renewal. The permittee shall submit the IWM report on an annual basis (by April 30 of each year).

In addition, the facility must sample and analyze the effluent from discharge points 01A and 01B for those parameters listed in 40 CFR 122, Appendix D, Table III (Table 9). Samples must be collected annually from each outfall. Sample analysis must be conducted with a method/report detection level less than the applicable water quality standard where reasonable.

Table 9: Parameters from 40 CFR 122, Appendix D, Table III

Antimony, Total	Lead, Total	Zinc, Total
Arsenic, Total	Mercury, Total	Cyanide, Total
Beryllium, Total	Nickel, Total	Phenols, Total
Cadmium, Total	Selenium, Total	Hardness as $CaCO_3$
Chromium, Total	Silver, Total	
Copper, Total	Thallium, Total	

DISCHARGE MONITORING REPORT – QUALITY ASSURANCE (DMR-QA) STUDY

The permit contains language requiring the permittee to participate in the DMR-QA Study. Participation is a requirement of Section 308 of the Clean Water Act (CWA).

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.

APPENDIX A – PUBLIC INVOLVEMENT INFORMATION

The department proposes to reissue a permit to the **United States Air Force – Grand Forks AFB**. The permit includes wastewater discharge limits and other compliance 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 **August 14, 2024** in the **Grand Forks Herald** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet. The facility will be provided a copy of the public notice and draft permit at the beginning of the public comment period.

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 people 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.

Further information can be obtained from the department by calling – 701.328.5210 or by writing to the address below.

North Dakota Department of Environmental Quality
Division of Water Quality – NDPDES Program
4201 Normandy Street –3rd Floor
Bismarck, ND 58503-1324

The primary permit and fact sheet writer is A.J. Delzer.

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

Public Notice Date: 8/14/2024 Public Notice Number: ND-2024-023

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: 3/21/2024 Application Number: ND0020621

Applicant Name: United States Air Force GF

Mailing Address: 319 CES/CEIEC 525 Tuskegee Airmen Blvd, Grand Forks AFB, ND 58205

Telephone Number: 701.747.6156

Proposed Permit Expiration Date: 9/30/2029

Facility Description

The reapplication is for a four-cell wastewater lagoon system which services the Grand Forks Air Force Base. The lagoon system is located in the S1/2 of Section 29, Township 152N, Range 52W. Any discharge would be from outfall 01A or 01B and enter a drainage ditch which flows to Kelly's Slough, a class III 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. For further information on making public comments/public comment tips please visit: https://deq.nd.gov/PublicCommentTips.aspx. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 4201 Normandy Street, Bismarck ND 58503-1324 or by calling 701.328.5210.

All comments received by September 14, 2024 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.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations, contact the NDDEQ Non-discrimination Coordinator at 701-328-5210 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

APPENDIX B – DEFINITIONS

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 n^{th} 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).

APPENDIX C – DATA AND TECHNICAL CALCULATIONS

The development of the permit did not require technical calculations by the North Dakota Department of Environmental Quality. The department reviewed DMR information and applicable water quality standards for class III streams to determine the appropriate requirements to be placed in the permit. In addition, the department reviewed Total Maximum Daily Load information for Kelly's Slough and the department's *North Dakota 2020-2022 Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads* Report

APPENDIX D – RESPONSE TO COMMENTS

Comments received during the public comment period will be addressed and placed here.

Permit No: ND0020621
Effective Date: October 01, 2024
Expiration Date: September 30, 2029

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,

the United States Air Force
Grand Forks Air Force Base

is authorized to discharge from its waste stabilization ponds

to Kelly's Slough

provided all the conditions of this permit are met.

This permit and the authorization to discharge shall expire at midnight,

September 30, 2029.

Signed this _____ day of _____, _____.

_____
Karl H. Rockeman, P.E.
Director
Division of Water Quality

BP 2019.05.29

This page is intentionally left blank

TABLE OF CONTENTS

DEFINITIONS

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 n^{th} 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 01A. Active. Final.			
Latitude: 47.947206	Longitude: -97.330953	County: Grand Forks	
Township: 152N	Range: 52W	Section: 29	QQ: DCD
Receiving Stream: Kelly's Slough		Classification: Class III	
Outfall Description: Effluent limitations for the South Secondary lagoon cell. Treated effluent from the lagoon cell flows to a ditch leading to Kelly's Slough.			

Outfall 01B. Active. Final.			
Latitude: 47.947372	Longitude: -97.330408	County: Grand Forks	
Township: 152N	Range: 52W	Section: 29	QQ: DDC
Receiving Stream: Kelly's Slough		Classification: Class III	
Outfall Description: Effluent limitations for the Tertiary lagoon cell. Treated effluent from the lagoon cell flows to a ditch leading to Kelly's Slough.			

PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Monitoring Period	Submittal Frequency	First Submittal Date
01AA	Discharge Monitoring Report	1/month	1/quarter	January 31, 2025
01BA	Discharge Monitoring Report	1/month	1/quarter	January 31, 2025
01AW	Discharge Monitoring Report	1/quarter	1/quarter	January 31, 2025
01BW	Discharge Monitoring Report	1/quarter	1/quarter	January 31, 2025
01AM	Discharge Monitoring Report	1/year	1/year	October 31, 2025
01BM	Discharge Monitoring Report	1/year	1/year	October 31, 2025
Wastewater Collection System	Industrial Waste Management Report	1/year	1/year	April 30, 2025
Application Renewal	NPDES Application Renewal	None	1/permit cycle	March 31, 2029

SPECIAL CONDITIONS

Lagoon and Lift Station Inspection Requirements

The inspection requirements for the lagoon and lift stations are well established and shall continue to be logged. These requirements shall continue under Part III. Compliance Responsibilities, B. Proper Operation and Maintenance.

Industrial Waste Management (IWM) Program

The Grand Forks AFB has a IWM Program in place. All activities under this program shall continue in this permit renewal. The due date for the IWM report shall be submitted by April 30 of each year.

DMR-QA Study

This facility has been selected to take part in the annual Discharge Monitoring Report – Quality Assurance (DMR-QA) Study. This participation is a requirement as outlined in Section 308 of the Clean Water Act (CWA). EPA will mail you a copy of the annual DMR-QA Study notification letter. Additional information may be found by visiting the following website: https://www.epa.gov/compliance/discharge-monitoring-report-quality-assurance-study-program#about Discontinuation from the DMR-QA Study may take place upon a written letter from the State DMR-QA Coordinator.

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

1. During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls as specified to the following: **Unnamed Tributary to Kelly's Slough**

2. No discharge shall occur from the lagoons until all pre-discharge parameters have been reviewed by the department. After the review process has been completed the permittee shall comply with the limitations of this permit.

3. 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 01A and Outfall 01B

Parameter	Effluent Limitations			Monitoring Requirements	
	Average Monthly Limit	Weekly 7-day Average Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Biological Oxygen Demand (BOD_5)	25 mg/L	45 mg/L	N/A	1/Week	Grab
Total Suspended Solids (TSS)	30 mg/l	45 mg/L	N/A	1/Week	Grab
pH	Shall remain between 6.0 s.u. to 9.0 s.u.			1/Week	Grab
E. coli [a]	126/100 mL	N/A	409/100 mL	1/Week	Grab
Ammonia as N	Refer to the Ammonia table (Table 2) below			1/Week	Grab
Oil & Grease – Visual [b]	N/A	N/A	N/A	1/day	Visual
Oil & Grease [b]	N/A	N/A	10 mg/L	Conditional	Grab
Whole Effluent Toxicity (WET)	Refer to WET requirements in Part I(C)			1/Quarter	Grab
Nitrogen, Total	Average for the month	N/A	Monitor only (mg/L)	1/month	Grab
Nitrogen, Total	Average for the month	N/A	Monitor only (lb/day)	1/month	Calculated
Phosphorus, Total (as P)	Average for the month	N/A	Monitor only (mg/L)	1/month	Grab
Phosphorus, Total (as P)	Average for the month	N/A	Monitor only (lb/day)	1/month	Calculated

Table 1: Effluent Limitations and Monitoring Requirements Outfall 01A and Outfall 01B

Parameter	Effluent Limitations			Monitoring Requirements	
	Average Monthly Limit	Weekly 7-day Average Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Temperature, °C	N/A	N/A	N/A	1/Week	Grab
Effluent Flow, MDG	Report	N/A	Report Max. Daily Value	1/Day	Calculated
Total Flow, MG	N/A	N/A	Report Monthly Total	1/Month	Calculated
Metals, mg/L [c]	Refer to 40 CFR 122, Appendix D, Table III			1/Year	Grab

Notes:

a. *E. coli* shall not exceed 126 organisms per 100 ml as a geometric mean of representative samples collected during any 30-day consecutive period, nor shall samples exceed 409 organisms per 100 ml for any one day.

The limit for *E. coli* shall only apply during the recreational season, April 1 through October 31. Averages for *E. coli* shall be determined as a geometric mean.

b. A daily visual check shall be performed. There shall be no discharge of oily wastes that produce a visible sheen on the surface of the receiving water. If present, a grab sample shall be analyzed for oil and grease to ensure compliance with the concentration limitation.

c. A total hardness of the receiving stream needs to be determined every time metals are sampled and analyzed. The hardness is used to calculate parameter criteria according to the state water quality standards. This sample shall be collected upstream of the final discharge site. If an upstream sample is not feasible (i.e. no flow) then the hardness of the effluent shall be sampled.

Stipulations:

A pre-discharge sample must be taken prior to the start of any discharge. A grab sample shall be tested for BOD_5, TSS, pH, *E. coli*, Temperature, and Ammonia as N. This pre-discharge sample shall represent the first week discharge sample. An additional grab sample of the actual discharge shall be taken and analyzed on a weekly basis for the duration of the discharge.

At a minimum, one (1) grab sample shall be taken each week of the discharge and analyzed for BOD5, TSS, pH, *E. coli*, Temperature, Ammonia as N, and all parameters associated with Ammonia as N (Table 2). The predischarge sample may be used for the sample required for the first week of the discharge. The start and end dates of the discharge shall also be recorded. The total amount of water discharged shall be determined either by using a flow-measuring device or by recording the water-level drop in the pond. All samples and measurements taken shall be representative of the discharge.

Table 1: Effluent Limitations and Monitoring Requirements Outfall 01A and Outfall 01B

Parameter	Effluent Limitations			Monitoring Requirements	
	Average Monthly Limit	Weekly 7-day Average Limit	Daily Maximum Limit	Sample Frequency	Sample Type
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.					
Best Management Practices (BMPs) are to be utilized so that there shall be no discharge of floating debris, oil, scum, and other floating materials in sufficient amounts to be unsightly or deleterious, or oil wastes that produce a visible sheen on the surface of the receiving water. All discharges shall be made in such a manner to minimize any possible adverse impacts on the receiving stream and downstream landowners.					

Table 2: Ammonia Effluent Limitations and Monitoring Requirements Outfalls 001

	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Ammonia [1]	†	NA	‡
Effluent Temperature, °C [2]	NA	NA	NA
Effluent pH, S.U. [2]	NA	NA	NA

1 Calculations must be performed for each discharge sample. If an exceedance is detected on any single sample, the exceedance must be reported on the DMR.

2 Sample must be collected/recorded the same day as the ammonia sample. Effluent temperature and pH are used for the calculation.

† Chronic Standard (Average Monthly Limit)
The 30-day average concentration of total ammonia (expressed as N in mg/L) does not exceed the numerical value given by the following formula:

$$2.5 \times 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times \left(2.126 \times 10^{0.028\times(20-MAX(T,7))}\right)$$

Effluent pH and Temperature is used for the calculation

‡ Acute Standard (Daily Maximum Limit)
The total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:

$$0.7249 \times \left(\frac{0.0114}{1+10^{7.204-pH}} + \frac{1.6181}{1+10^{pH-7.204}}\right) \times MIN\left(51.93, 23.12 \times 10^{0.036\times(20-T)}\right)$$

where *Oncorhynchus* are absent.

Stipulations

NA means Not Applicable.

Table 2: Ammonia Effluent Limitations and Monitoring Requirements Outfalls 001

	Effluent Limitations		
Parameter	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
The Ammonia as an effluent limitation shall be applied at end-of-pipe.			

C. Whole Effluent Toxicity (WET) Requirements BP 2023.10.16

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*.

Table 3: Acute WET Requirements

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 calendar quarter 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.

Implementation	Limitations Imposed					
Effluent Dilution	0%(Control)	12.5%	25%	50%	75%	100%
Dilution Water	**Kelly's Slough***					
Species and Test Type	*Ceriodaphnia dubia* - 48 Hour Acute - Static Renewal - 20°C					
	Fathead minnow - 96 Hour Acute - Static Renewal - 20°C					
Endpoint	Mortality LC_{50} reported as TU_a					
Compliance Point	**End-of-pipe**					
Sampling Frequency	Quarterly. Samples from the discharge shall be collected during the first week of discharge each calendar year.					
Sample Type	Grab					
Maximum Daily Limit (MDL)	<1 TUa					
Average Monthly Limit (AML)	<1 TUa					

The use of alternate testing procedures or methods shall be approved in advance by the department (including, but not limited to the use of EDTA, CO_2 overlay, chlorine removal from the effluent sample if the effluent is chlorinated, etc.).

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 toxicity occur in the second test, testing shall be conducted at a frequency of once a month and the implementation of a Toxicity Reduction Evaluation (TRE) shall be determined by the department. If no toxicity is found in the second test, testing shall occur as outlined in the permit. Should there be no discharge during a specified sampling time frame; sampling shall be performed as soon as there is a discharge.

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.

* When dangerous conditions exist for personnel (i.e., thin ice, melting ice, flooding, etc.) the permittee may utilize moderately hard reconstituted water upon request and approval by the department.

2. Chronic Toxicity Testing

No chronic toxicity limits are imposed on this permit. Therefore, the permittee is not required to monitor or test for chronic toxicity.

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.

This provision restarts at the time of permit reissuance/renewal. Permittees may request alternating species after the conditions of this section are met under the reissued permit.

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 5. Toxicity Reduction Evaluation (TRE) 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 1. Acute Toxicity Testing and/or 2. Chronic Toxicity Testing.

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 "*Technical Support Document for Water Quality-based Toxics Control,*" 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 2021.09.09

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 B. Test Procedures. The permittee must report all additional monitoring in accordance with D. Additional Monitoring.

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 B. Test Procedures, 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, 2025, the permittee may elect to electronically submit the following compliance monitoring data and reports instead of mailing paper forms. Beginning December 21, 2025, 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 system 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
4201 Normandy Street
Bismarck ND 58503-1324

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 E. Signatory Requirements 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. 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 **Part II.E. Reporting of Monitoring Results**. 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. 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 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. Prohibition of Bypass. 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 1. Anticipated Bypass 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 F. Twenty-four Hour Notice of Noncompliance Reporting and

4. The permittee complied with any remedial measures required under I. Duty to Mitigate.

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.