

**North Dakota Department of Health Public Notice
Issue of an NDPDES Permit**

Public Notice Date: 8/25/2018

Public Notice Number: ND-2018-020

Purpose of Public Notice

The Department intends to issue 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: 4/1/2018

Application Number: NDG12

Applicant Name: General Permit NDG120000-Waste Stabilization Pond Discharges to Class I or IA Waters

Mailing Address: ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947

Telephone Number: 701.328.5237

Proposed Permit Expiration Date: 9/30/2023

Description

The Department intends to reissue a NDPDES General Permit, NDG120000, to regulate discharges from waste stabilization ponds to waters of the State subject to Class I or IA surface water quality standards. Coverage under the General Permit is limited to facilities that serve a population less than 5,000 and satisfy additional qualification criteria specified in the permit. Applicants must submit a Notice of Intent to the Department to obtain coverage under this or a similar General Permit.

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 FWPCA will be protected.

Information Requests and Public Comments

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

All comments received by September 25, 2018 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

STATEMENT OF BASIS FOR NDPDES PERMIT NDG120000
WASTEWATER STABILIZATION POND SYSTEMS

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STATEMENT OF BASIS FOR WASTEWATER STABILIZATION
POND DISCHARGES TO CLASS I OR IA
WATERS OF THE STATE

GENERAL PERMIT NDG120000

Reissuance - (Domestic, Minor Municipal – Lagoon System)

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) has oversight authority. In 1975, the State of North Dakota was delegated primacy of the NPDES program by EPA. The North Dakota Department of Health (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 hereby authorized to take all action necessary or appropriate to secure to this state the benefits of that act and similar federal acts. The department's authority and obligations for the wastewater discharge permit program is in the NDAC 33-16 (North Dakota Administrative Code), which was promulgated pursuant to NDCC chapter 61-28 (North Dakota Century Code). The department uses the North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following regulations apply to municipal NDPDES permits:

- Procedures the department use for issuing NDPDES permits (NDAC chapter 33-16-01),
- Water quality criteria for waters of the State (NDCA chapter 33-16-02.1).

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 the NDAC, section 33-16-01-08, the NDPDES permit program, the department must prepare a draft permit and accompanying fact sheet and make it available for a thirty-day public review period (NDAC chapter 33-16-01-07). The department must also publish an announcement (public notice) telling people where they can obtain the draft permit and send their comments on the draft. For more details on preparing and filing comments about these documents, please see **Appendix A – Public Involvement Information**. After the Public Comment Period ends, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and any changes to the permit in **Appendix D – Response to Comments**.

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BACKGROUND INFORMATION

The current permit issued for this class of dischargers expires on September 30, 2018. Currently, 59 facilities are covered (regulated) under this permit. It is expected that over the next five years the number of facilities covered by this permit will remain static.

According to Part 40 of the Code of Federal Regulations (CFR), Section 122.28, general permits issued for a class of discharges in place of individual permits for specific facilities benefits both the department and the permit holder by reducing administrative tasks and making the requirements for similar facilities consistent. As provided in the NDPDES Rules (NDAC 33-16-01), the department may issue general permits for a class of point source discharges that meet the following criteria: discharge the same types of wastes, employ similar or equivalent types of treatment, require the same effluent limitations and require the same or similar monitoring. The wastewater stabilization pond discharges described in this permit meet these criteria and can be appropriately regulated under a general permit.

PERMIT COVERAGE

This general permit covers discharges from wastewater stabilization ponds to Class I or IA streams and applicable lakes and reservoirs of the state. Generally, coverage is assigned according to the classification listed for the receiving water in the Standards of Quality for Waters of the State (Chapter 33-16-02.1). In some instances, a facility may be assigned coverage under a permit identifying a water classification higher than that listed in the standards for the receiving water to protect local features of the water body which support beneficial uses that may exceed those generally expected for the water body. Such features may include areas improved to provide recreation, proximity to a larger water body or areas known to provide valuable aquatic habitat.

To be eligible for coverage under this general permit, the wastewater stabilization ponds must be primarily for the treatment of domestic sewage, service a population of less than 5,000 people and not be considered a major discharge. In addition, it must be demonstrated that the facility can meet secondary effluent limitations through compliance with the conditions of a previously issued individual permit or through engineering design criteria and data.

Systems which receive a significant industrial discharge contribution will not be covered under this permit, unless it is determined by the department that the system can adequately treat the wastewater contribution. For purposes of this permit, significant industrial users are those satisfying any one of the following:

- 1) has a process wastewater flow of 25,000 gallons or more per average workday;
- 2) has a flow greater than 5 percent of the flow carried by the municipal system receiving the waste;
- 3) has in its waste a toxic pollutant in toxic amounts as defined under Section 307(a) of the Clean Water Act or is otherwise subject to a standard developed under Section 307(b) of the Act; or
- 4) found by the permit issuing authority to have a significant impact on the treatment works or quality of effluent from the POTW.

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To obtain coverage under this permit, the owner/operator or authorized agent for the facility must submit a Notice of Intent (NOI) to Obtain Coverage Under NDPDES General Permit Associated with the Treatment of Domestic Wastewater prior to the anticipated start of any discharge. In the case of an application for renewal of an individual permit or coverage under a general permit, a reapplication made under the provisions of the existing permit will be acceptable.

The department will then have thirty (30) days to deny coverage, request information or authorize coverage under the general permit. Coverage under the general permit will be valid only when the applicant receives a written notice of coverage (NOC) from the department. Facilities qualifying for coverage under this general permit, which are covered by individual permit, shall remain covered by the individual permit until its expiration. As provided in North Dakota's NDPDES Rules, the operator of a facility covered under this general permit, may request to be excluded from coverage under the general permit by submitting an application for an individual permit. In addition, any action by the department to require a facility to obtain an individual discharge permit will follow the procedures defined in our administrative rules.

DESCRIPTION OF DISCHARGE

Wastewater stabilization ponds are the most common means of treating domestic sewage from small communities in North Dakota. Generally, these systems contain two or more cells, discharge seven days or less, and are designed to provide for 180 days of storage. Typically, discharges occur from these systems in the spring and fall of the year. Discharges are made when the desired quality is achieved and to maintain adequate storage capacity.

The department has determined that the average population served by a system covered by this permit is 812 people. The population distribution for communities covered by this permit ranges from 30 people to 2411 people. A list of domestic wastewater stabilization pond systems in North Dakota, providing information on the location, cell size and population served, is maintained in the department's NDPDES database.

The department is responsible for overseeing the design, construction, and operation of municipal sewer collection and treatment systems. With the exception of minor repairs, the design plans for modifying or adding to a municipal treatment works must be reviewed by the department (NDCC 61-28-06). Facilities serving a population of 500 or more are required to have a state certified operator in accordance with NDCC 23-26. Under this general permit, the permittee is required to have pre-discharge samples reviewed by the department prior to any discharge from a wastewater stabilization system.

PERMIT STATUS

The department issued the previous permit on April 1, 2014. The previous permit had effluent limits and monitoring requirements for 5-Day Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), *Escherichia coli* (*E.coli*), Ammonia as N, and Oil and Grease.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

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Past Discharge Data

The concentration of pollutants in the discharges for all facilities covered under this permit were reported on DMR forms. Throughout the previous permit thirty (30) different facilities discharged for a combined total of 1,921 days over 296 discharge events. The effluent is characterized in Table 1.

Table 1 - NDG120000 Discharge Data (Data from April 1, 2014-July 1, 2018)

Parameter	Units	Range	Average	Permit Limit	Number of Exceedances
BOD ₅	mg/l	2-84.6	10.2	25	10
TSS	mg/l	0.5-124	19.16	30	51
pH	S.U.	5-10	N/A	7.0-9.0	51
<i>E.coli</i>	#/100 ml	0-2420	79.02	126	19
Ammonia	mg/l	0.03-26.6	2.99	WQS	16
Oil & Grease	mg/l	0-0	0	10	0
Drain	Mgal	0.32-32.36	8.46	N/A	N/A

PROPOSED PERMIT LIMITS

EFFLUENT LIMITATION REQUIREMENTS

The discharge of wastewater generated by domestic wastewater treatment facilities is regulated by national effluent guidelines which establish technology-based effluent limitations as well as state rules. Technology-based effluent limitations may be found in 40 CFR 133 and NDAC Chapter 33-16-01-30. These regulations are performance standards that constitute all known, available, and reasonable methods of prevention, control, and treatment for domestic wastewater. NDAC Chapter 33-16-01-14 also establishes effluent limitations for domestic wastes.

Limitations may be generated using Best Professional Judgement (BPJ) in the absence of a federal standard to ensure reasonable control technologies are used to prevent potential harmful effects of the discharge. In addition, the department must consider and include limitations necessary to protect water quality standards applicable to receiving waters. NDAC Chapter 33-16-02.1 established standards of quality for waters of the state.

Not all facilities regulated by this permit may be municipal or publicly owned treatment works (POTWs) and may not be regulated by national effluent standards which establish technology-based effluent limitations for POTWs. However, using BPJ, these standards were incorporated into the permit for all facilities covered under this permit.

The proposed effluent limitations shall take effect once the permit becomes effective. The limitations apply to all wastewater outfalls for the facility. The effluent limitations and basis for the limitations are provided in Tables 2 and 3.

Table 2 - Proposed Effluent Limitations

Effluent Parameter	30-Day Average^d	Weekly Limit^d	Daily Maximum^d	Basis^a
BOD ₅ (mg/l)	25 mg/l	*	45 mg/l	Previous Permit; NDAC 33-16-01-14(3)(c)(1); 40 CFR 133.102(a)(2)
pH (S.U.)	Shall remain between 7.0 and 9.0 S.U.			Previous Permit, 40 CFR 133.102(c); WQS
TSS mg/l	30 mg/l	*	45 mg/l	Previous Permit; 40 CFR 133.102(b)
<i>E.coli</i> (#/100 ml) ^b	126/100	*	409 mg/l	WQS
Ammonia as N (mg/l) ^c	Refer to Table 3			WQS
Effluent Flow (MGD)	Report	*	*	Previous Permit; BPJ
Total Drain (Mgal)	*	*	Total	Previous Permit; BPJ
Ammonia as N (Option 1) – Receiving Water Parameters – Collected same days as effluent compliance sample.				
Flow (cfs)			Report	WQS
pH (S.U.)			Report	WQS
Temperature (°C)			Report	WQS
Ammonia as N			Report	WQS
Ammonia as N (Option 2) – Receiving Water Parameters – Collected same days as effluent compliance sample.				
Temperature (°C)			Report	WQS
Notes:				
*	This parameter is not limited. However, the department may impose limitations based on sample history to protect receiving waters.			
a.	The basis for effluent limitations is given below:			
	<p>“Previous Permit” refers to limitations in the previous permit. The NPDES regulations 40 CFR Part 122.44(1)(1) Reissued Permits require that when a permit is renewed or reissued, interim limitation, standards, or conditions must be at least as stringent as the final effluent limitations, standard, 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.</p> <p>“WQS” refers to the effluent limitations based on the state of North Dakota’s “Standards of Quality for Waters of the State”, NDAC Chapter 33-16-02.1.</p> <p>“BPJ” refers to best professional judgement.</p>			
b.	The limit for <i>E.coli</i> shall only apply during the recreational season, April 1 through October 31. Averages for <i>E.coli</i> shall be determined as a geometric mean.			
c.	A discharge ammonia criterion will be dependent on receiving water flow, pH, temperature,			

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	discharge rate, and effluent concentration. This determination shall be in accordance to the formula specified in the latest revision of the state water quality standards.
d.	Since the systems are small and discharge infrequently for short periods of time, the 7-day maximum limits outlined in the secondary treatment standards (40 CFR 133) have not been used in this permit. The limitations applied to each lagoon cell discharge event reflect the 30-day average limits and the daily maximum outlined in the secondary treatment standards. The final secondary treatment regulation (40 CFR Part 133.102) indicates that appropriate monitoring adjustments could be provided to reflect system operation.
Stipulations:	
	There is to be no floating oil or visible sheen present in the discharge. The discharge shall not contain, in sufficient amounts to be unsightly or deleterious, any floating debris, oil, scum, and other floating materials attributable to domestic wastewater operations. If floating oil or a visible sheen is observed at the discharge point, the department shall be contacted.

Table 3 - Ammonia as N Effluent Limitations Calculations (NDAC 33-16-02.1)

<p>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; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:</p> $\frac{(0.0577)}{(1+10^{7.688-pH})} + \frac{2.487}{1+10^{pH-7.688}} \cdot CV;$ <p>where CV = 2.85, when T ≤ 14°C; or CV = 1.45 * 10^{0.028*(25-T)}, when T > 14°C. Receiving stream pH is used for the calculation</p>	
<p>Acute Standard (Daily Maximum Limit) The one-hour average concentration of total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:</p> $\frac{(0.411)}{(1+10^{7.204-pH})} + \frac{58.4}{1+10^{pH-7.204}}$ <p>where salmonids are absent; or</p> $\frac{(0.275)}{(1+10^{7.204-pH})} + \frac{39.0}{1+10^{pH-7.204}}$ <p>Where salmonids are present.</p>	
<p>Note – For the above calculations, the permittee receives ten percent of stream flow for dilution (refer to Option 1) at time of discharge based on the flow of the receiving stream. In- stream concentration will be calculated on a mass-balance basis using the following formula:</p> <p>In-stream concentration= (Q_u*C_u + Q_e*C_e)/(Q_u+ Q_e) where Q_u= 10% of the receiving stream flow parameter C_u= Receiving stream ammonia parameter Q_e= Effluent flow parameter</p>	

C_e = Ammonia as N parameter

Outfall discharge flow rates will be regulated accordingly to avoid exceeding the water quality standard for ammonia as N at any time during the discharge period.

EFFLUENT MONITORING REQUIREMENTS

Effluent Monitoring

All effluent shall be sampled at a point leaving the outfall but prior to entering waters of the state.

Table 4 - Self Monitoring Requirements

Effluent Parameter	Frequency	Sample Type ^a
BOD ₅ , mg/l	Weekly ^b	Grab
pH, S.U.	Weekly ^b	Grab
TSS, mg/l	Weekly ^b	Grab
<i>E.coli</i> , #/100 ml ^c	Weekly ^b	Grab
Ammonia as N, mg/l	Weekly ^b	Grab
Effluent Flow, MGD	Daily	Calculated
Total Drain, Mgal ^d	Semiannually	Calculated
Ammonia as N (Option 1) – Receiving Water Parameters – Collected same days as effluent compliance sample.		
Flow, cfs	Weekly	Grab
pH, S.U.	Weekly	Grab
Temperature, °C	Weekly	Grab
Ammonia as N, mg/l	Weekly	Grab
Ammonia as N (Option 2) – Receiving Water Parameters – Collected same days as effluent compliance sample.		
Temperature, °C	Weekly	Grab
Notes:		
a.	Refer to Appendix B for definitions	
b.	Sampling shall consist of one (1) grab sample to be taken and analyzed prior to any discharge. This analysis shall be reported to the department prior to discharge if the permittee is an intermittent discharger and used for the first week of the discharge. In addition, one (1) grab sample of the actual discharge shall be taken and analyzed on a weekly basis for each additional week of the discharge, starting on the 8 th day of the discharge.	
c.	The monitoring requirement for <i>E.coli</i> shall be in effect for discharges which may occur from April 1 through October 31.	
d.	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.	

TECHNOLOGY-BASED EFFLUENT LIMITS

Federal and state regulations define technology-based effluent limits for municipal wastewater treatment plants. These effluent limits are given in 40 CFR Part 133 and in NDAC Chapter 33-16-01-30. Through BPJ these effluent limits were incorporated into the permit. These regulations are performance standards that constitute all known, available, and reasonable methods of prevention, control, and treatment for municipal wastewater.

NDAC Chapter 33-16-01-30 incorporates by reference 40 CFR Part 133 which lists the following technology-based limits for BOD₅, TSS, and pH:

Table 5 - Technology-based Limits

Parameter	30-Day Average	7-Day Average
BOD ₅ *	25 mg/l	45 mg/l
TSS*	45 mg/l	65 mg/l
pH	Remain between 6.0 and 9.0 S.U.	--
Percent Removal	85% BOD ₅ and 65% TSS	--
*Treatment equivalent to secondary treatment		

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

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 33-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. The department uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

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

Narrative Criteria

Narrative water quality criteria (NDAC Chapter 33-16-02.1-08) 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 33-16-02(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 statement of basis 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 33-16-02.1 (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

The current state water quality standard for pH in wastewater discharged to a Class I or IA North Dakota stream is 7.0 – 9.0 S.U.

The department is aware that some discharges are above 9.0 S.U. According to NDAC Chapter 33-16-01-14(3)(c)(3) "The pH of natural ground waters and surface waters in some parts of the state are basic, and the stabilization process of wastewater treatment in lagoon systems can result in more alkaline (increased pH) water. Discharges from waste treatment facilities may exceed the upper pH limit of 9.0 provided in the secondary treatment standard due to these uncontrollable ambient properties."

Ammonia as N

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

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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.

A numeric ammonia limit will not be established in the permit at this time; however, the permittee will have two (2) options to choose from to comply with the ammonia as N water quality standard.

- Option one (1): discharge limits will be calculated at the time of discharge in compliance with the State Water Quality Standard for Ammonia to provide the permittee with real-time ammonia limitations (see permit).
- Option two (2): the permittee will sample the ammonia as N from the system and comply with state water quality standard at the end-of-pipe – forgoing any receiving water dilution.

Upon choosing option 1, the department and the permittee will verify compliance with the state water quality standard through the use of an ammonia spreadsheet. Any ammonia as N effluent values exceeding the applicable ammonia as N calculation shall be reported in the corresponding blank in the DMR submitted to the department. It is the intent of the department to ensure that state water quality standards are not violated, and the permittee optimizes the efficiency of its treatment facility.

For intermittent discharges discharging less than seven (7) days, the department feels that using the 4-day chronic standard over the 30-day average standard is appropriate for determining compliance. These facilities usually discharge for less than seven days, thus a 30-day average was deemed impracticable.

E. coli

Based on the WQS, the department has determined that an *E. coli* limitation of 126 organisms per 100 ml as a monthly geometric mean and 409 organisms per 100 ml as a daily maximum is appropriate for these types of facilities. 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 extends this period to ensure the recreation season is covered.

Oil and Grease

The WQS's state that waters of the state must be free from oil and grease attributable to wastewater which causes a visible sheen or film upon the water. Under normal operating conditions, lagoon cells should not have oil and grease that is visible beyond the primary cell. During the previous permit, 296 discharge events took place and in 100% of the discharge events, an oil sheen was not visibly detected. Due to this, the department determined that removing the numeric oil and grease criteria and relying on the narrative criteria is sufficient to protect waters of the state.

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Phosphorus and Nitrogen (Nutrients)

Nutrient monitoring was excluded from this general permit renewal. The additional monitoring for these small lagoon systems that typically only discharge twice per year and for a duration of seven (7) days or less was determined to be excessive. According to the North Dakota Nutrient Reduction Strategy, nutrient monitoring is not a priority for this class of dischargers.

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 Chapter 33-16-01-(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.

TEST PROCEDURES

The collection and transportation of all samples shall conform to EPA preservation techniques and holding times. 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

BENEFICIAL REUSE

Irrigation

Only wastewater that has received secondary or tertiary treatment may be used for irrigation provided soil and water compatibility testing confirms the water is suitable for irrigation. Wastewater used for irrigation shall be applied at a rate which would allow complete infiltration and not result in ponding or runoff from the irrigated area.

Agricultural land may be irrigated provided the crop is not used for human consumption. Forage crops used for livestock consumption or pastures irrigated with wastewater shall not be harvested or grazed within 30 days of a wastewater application.

Public properties such as golf courses or parks may be irrigated provided the treated wastewater meets the following quality criteria.

Table 6 - Beneficial Reuse-Irrigation Requirements

Parameter	Discharge Limitations	Monitoring Frequency	
		Measurement Frequency	Sample Type
	Daily Max		
BOD ₅ (mg/l)	30.0	1 per 14 days	Grab
TSS (mg/l)	45.0	1 per 14 days	Grab
<i>E. Coli</i> (number/100 ml)	126	Weekly	Grab

Whenever possible, irrigation shall take place during hours when the public does not have access to the area being irrigated. If the public has constant access to an area, signs must be posted in visible areas during irrigation and for two hours after irrigation is completed. The signs must advise people that the water could pose a health concern and to avoid the irrigated area.

Worker and public contact with treated wastewater should be minimized. Where frequent contact is likely, a higher level of disinfection should be provided such as achieving *E. coli* counts less than 14 colonies per 100 ml.

Avoid application within 100 feet of areas which have unlimited access (i.e., yards) or within 300 feet of potable water supply wells.

Runoff that occurs from irrigated areas shall be monitored at the frequencies and with the types of measurements described in Part I(B).

The permittee shall maintain monitoring records indicating the location and usage (e.g., park or agricultural) of the land being irrigated, the dates irrigation occurred, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

Construction

Treated domestic wastewater may be used for construction purposes such as soil compaction, dust suppression and washing aggregate, provided the following conditions are met.

The wastewater intended for use in construction, must at a minimum, receive secondary treatment.

Prior to using treated wastewater, a sample from the prospective source must be tested and meet the criteria set below. In addition, the test results for *E. coli* must be provided to the department prior to use. Results from samples up to two (2) weeks old will be considered valid. The water quality limitations and minimum sampling frequencies recommended for wastewater used in construction are provided in the following table.

Table 7 - Beneficial Reuse-Construction Requirements

Parameter	Limitations (Maximum)	Measurement Frequency	Sample Type
BOD ₅ (mg/l)	30	Monthly	Grab
TSS (mg/l)	100	Monthly	Grab
<i>E. Coli</i> (number/100 ml)	126	Weekly	Grab

In some systems chlorination is available. Chlorination is particularly desirable when frequent worker contact with the treated wastewater is likely or when the public may have constant access to areas where the wastewater is being used. Maintaining a chlorine residual of at least 0.1 mg/l is recommended.

While the conventional methods for treating domestic wastewater are generally effective in reducing infectious agents (bacteria, viruses, parasites) to acceptable levels, direct reuse of treated wastewater can pose a health concern. Additional precautions to consider are:

1. Worker and public contact with treated wastewater should be minimized.
2. Where frequent worker contact is likely a higher level of disinfection should be provided, such as achieving *E. coli* counts less than 14/100 ml.
3. Work closely with the treatment system operator to ensure treated wastewater quality is suitable when it is drawn for construction purposes.
4. Apply the treated wastewater in a manner that does not result in runoff or ponding.

Runoff that occurs from application areas shall be monitored at the frequencies and with the types of measurements described in Part I(B).

The permittee shall maintain monitoring records indicating the location and usage of the land where application occurs, the dates application occurred, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

Oil and Gas Production (including Hydraulic Fracturing)

The specific user of the wastewater may determine the specific treatment requirements for receiving wastewater.

The permittee shall maintain monitoring records indicating the specific user, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

Other Uses as Approved

The permittee must consult with the department before beneficially reusing wastewater for purposes not identified in this permit.

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 NDPDES general permit for the facilities that qualify for coverage under the NDG120000. The permit includes wastewater discharge limits and other compliance conditions. This statement of basis describes the conditions the facilities must meet for coverage under NDG120000 and the department's reasons for requiring permit conditions.

The department placed a 30-day Public Notice of Draft on August 25, 2018 in all state regional papers and on the department's website: <https://deq.nd.gov/WQ/>. The notice will also be mailed to the department's public notice mailing list. The facilities covered under the present permit will be provided a copy of the public notice and draft permit at the beginning of the public comment period. The proposed expiration date for the renewed general permit is September 30, 2023.

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 30-day 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 Health
Division of Water Quality – NDPDES Program
918 East Divide Ave – 4th Floor
Bismarck, ND 58501-1947

The primary permit and fact sheet writer is Sarah Waldron Feld.

**North Dakota Department of Health Public Notice
Issue of an NDPDES Permit**

Public Notice Date: 8/25/2018

Public Notice Number: ND-2018-020

Purpose of Public Notice

The Department intends to issue 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: 4/1/2018

Application Number: NDG12

Applicant Name: General Permit NDG120000-Waste Stabilization Pond Discharges to Class I or IA Waters

Mailing Address: ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947

Telephone Number: 701.328.5237

Proposed Permit Expiration Date: 9/30/2023

Description

The Department intends to reissue a NDPDES General Permit, NDG120000, to regulate discharges from waste stabilization ponds to waters of the State subject to Class I or IA surface water quality standards. Coverage under the General Permit is limited to facilities that serve a population less than 5,000 and satisfy additional qualification criteria specified in the permit. Applicants must submit a Notice of Intent to the Department to obtain coverage under this or a similar General Permit.

Tentative Determinations

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

Information Requests and Public Comments

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

All comments received by September 25, 2018 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

APPENDIX B – DEFINITIONS

DEFINITIONS Standard Permit BP 2013.12.31

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 Health, 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.

APPENDIX C – DATA AND TECHNICAL CALCULATIONS

The development of the permit did not require technical calculations by the department. The department reviewed applicable water quality standards for Class 1 or IA waters of the state to determine appropriate requirements to be placed in the permit. These determinations were made using end-of-pipe evaluations.

APPENDIX D – RESPONSE TO COMMENTS

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

Permit No: NDG120000
Effective Date: October 1, 2018
Expiration Date: September 30, 2023

AUTHORIZATION TO DISCHARGE UNDER THE
NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33-16-01 of the North Dakota Department of Health rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

domestic wastewater treatment facilities satisfying the requirements of this permit is authorized to discharge from waste stabilization ponds

to Class I or IA waters of the State

provided all the conditions of this permit are met.

This permit and the authorization to discharge shall expire at midnight, September 30, 2023.

Signed this _____ day of _____, _____.

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

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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.

OUTFALL DESCRIPTION

Outfall “Cell Name” – Active. Final Outfall. Wastewater Stabilization Ponds Discharge. The wastewater stabilization pond system received domestic wastewater for treatment.

PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Frequency	First Submittal Date
“Cell Name”	Discharge Monitoring Report	Semiannually	April 30, 2019
Application Renewal	NPDES Application Renewal	1/permit cycle	April 1, 2023

SPECIAL CONDITIONS

A. Alternate Permits

When an individual North Dakota Pollutant Discharge Elimination System (NDPDES) permit is issued to a facility otherwise subject to this permit, coverage under General Permit NDG120000 is automatically terminated upon the effective date of the individual permit. When a facility is approved for coverage under an alternative NDPDES general permit, the authorization under this permit is automatically terminated on the date of approval for coverage under the alternative general permit. When an individual NDPDES permit or coverage under an alternative general permit is denied to a facility/POTW otherwise subject to this permit, the applicability of this permit remains in effect, unless otherwise specified by the department.

B. Facility Permit Coverage

1. To obtain coverage under this permit, the owner, operator, or authorized agent of the facility must submit a Short Form A, NDPDES Permit Notice of Intent (NOI).
2. Within thirty (30) days after receiving an application, the department will authorize coverage under this discharge permit, deny coverage, or request additional information. Coverage under this General Permit will begin when the applicant receives a written notice of coverage from the department.
3. A request to be issued an individual permit may be made by the owner, operator, or authorized agent of any facility that is eligible for coverage under this General Permit. Such requests shall provide the reasons for issuing an individual permit to the facility. If the reasons are adequate to support the request, the department may issue an individual permit.
4. Facilities covered by an individual permit, which are also eligible for coverage under this permit, shall remain covered by the individual permit until it expires. The reapplication submitted under the provisions of the existing individual permit will be processed as an application for authorization under this permit.

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

1. During the effective period of this permit, the permittee is authorized to discharge wastewater pollutants provided the discharge meets the limitations and monitoring requirements outlined in this permit. Permittees discharging wastewater that does not comply with the permit conditions may be subject to civil and/or criminal penalties under the North Dakota statutes. This permit identifies the requirements for discharges from waste stabilization ponds in North Dakota to Class I or IA waters of the State.
2. To be eligible for authorization to discharge under this general permit, the stabilization ponds must service a population of less than 5,000 people, not be considered a major discharge facility by the department and have no significant industrial user contributions as determined by the department. Additionally, it must be demonstrated that the system can meet secondary treatment limitation through compliance with a previously issued discharge permit for the facility or engineering design criteria and data.

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

The permittee must notify the department prior to any lagoon discharge. Approximately two (2) weeks prior to any planned discharge, a representative pre-discharge grab sample must be collected from the lagoon cell and analyzed for the parameters listed in the table below. The pre-discharge sample results must be provided when notifying the department of a planned discharge. The permittee must limit and monitor all discharges as specified below:

Table 1: Effluent Limitations and Monitoring Requirements – Wastewater Stabilization Ponds					
Parameter	Effluent Limitations			Monitoring Requirements	
	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Biochemical Oxygen Demand (BOD ₅) ^a	25 mg/l	*	45 mg/l	Weekly	Grab
pH ^a	Shall remain between 7.0 to 9.0 s.u.			Weekly	Grab
Total Suspended Solids (TSS) ^a	30 mg/l	*	45 mg/l	Weekly	Grab
Escherichia coli (<i>E. coli</i>) ^{a, b}	126/100 ml	*	409/100 ml	Weekly	Grab
Total Ammonia as N, mg/l ^{a, c}	Refer to Ammonia Table below (Table 2)			Weekly	Grab
Effluent Flow, MGD	Report	*	*	Daily	Calculated
Total Drain, Mgal	*	*	Total	Semiannually	Calculated
Ammonia as N (Option 1) – Receiving Water Parameters – Collected same days as effluent compliance sample.					
Flow (cfs)	*		Report	Weekly	Grab
pH (s.u.)	*		Report	Weekly	Grab
Temperature (°C)	*		Report	Weekly	Grab
Ammonia as N (mg/l)	*		Report	Weekly	Grab
Ammonia as N (Option 2) – Receiving Water Parameters – Collected same days as effluent compliance sample.					
Temperature (°C)	*		Report	Weekly	Grab
Notes:					
<p>*. This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.</p> <p>a. A pre-discharge sample must be analyzed and reported to the department prior to the start of any discharge. A pre-discharge grab sample shall be tested for BOD₅, TSS, pH, <i>E. coli</i>, 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.</p>					

Table 1: Effluent Limitations and Monitoring Requirements – Wastewater Stabilization Ponds

Parameter	Effluent Limitations			Monitoring Requirements	
	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type

b. *E. coli* shall not exceed 126 organisms per 100 ml as a geometric mean of representative sample collected during any 30-day consecutive period, nor shall sample exceed 409 organisms per 100 ml for any one day. This limit applies from April 1 through October 31.

c. Permittee must use one of two options to comply with the ammonia as N limitation:

- Option 1 – Applicable (temperature, pH, ammonia as N, and receiving-stream flow) receiving water parameters are collected to calculate (refer to formula in Table 2) the real-time water quality standard for ammonia. This option allows 10% of the receiving stream flow for dilution. This calculated limit will be compared to the facility effluent data on ammonia and if the effluent value is greater than the calculated limit, the permittee shall report a violation.
- Option 2 – Permittee collects ammonia as N and temperature samples from the lagoon cell to be discharged and complies with the ammonia as N limit at the end-of-pipe forgoing any receiving water dilution.

Stipulations:

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

The limitations for BOD₅, TSS, and *E. coli* are based on the average of all samples taken to monitor the discharge from a cell. If only one sample is collected, that one value shall be used as the average. The limitation for pH applies to each sample taken. The department may allow discharge when the pH is outside the stated range if it suspects that the variation is due to natural biological processes, and the discharger confirms that chemicals were not added to the cell or contributions from industrial sources did not cause the pH to exceed the permitted range of 7.0-9.0 s.u.

All discharges shall be made in such a manner to minimize any possible adverse impacts on the receiving stream and downstream landowners.

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 – Option 1 or 2. The pre-discharge 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 – Wastewater Stabilization Ponds					
Parameter	Effluent Limitations			Monitoring Requirements	
	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
<p>The department may require the permittee to provide additional sampling and monitoring as deemed necessary to assure adequate operation of the treatment system and the water quality standards are met during the discharge period.</p> <p>Compliance samples meeting the monitoring requirements specified in this permit shall be taken prior to leaving the wastewater stabilization pond system or entering the receiving stream.</p>					

Table 2: Ammonia as N Effluent Limitations Calculations (Chapter 33-16-02.1)
<p>Chronic Standard (Average Monthly Limit)</p> <p>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; and the highest 4-day average concentration of total ammonia within the 30-day averaging period does not exceed 2.5 times the numerical value given by the following formula:</p> $\frac{(0.0577}{(1+10^{7.688-\text{pH}})} + \frac{2.487}{1+10^{\text{pH}-7.688}} \bullet \text{CV};$ <p>where CV = 2.85, when T ≤ 14°C; or CV = 1.45 * 10^{0.028*(25-T)}, when T > 14°C. Receiving stream pH is used for the calculation</p>
<p>Acute Standard (Daily Maximum Limit)</p> <p>The one-hour average concentration of total ammonia (expressed as N in mg/l) does not exceed the numerical value given by the following formula:</p> $\frac{(0.411}{(1+10^{7.204-\text{pH}})} + \frac{58.4}{1+10^{\text{pH}-7.204}}$ <p>where salmonids are absent; or</p> $\frac{(0.275}{(1+10^{7.204-\text{pH}})} + \frac{39.0}{1+10^{\text{pH}-7.204}}$ <p>Where salmonids are present.</p>
<p>Note – For the above calculations, the permittee receives ten percent of stream flow for dilution (refer to Option 1) at time of discharge based on the flow of the receiving stream. In- stream concentration will be calculated on a mass-balance basis using the following formula:</p> <p>In-stream concentration= (Q_u*C_u + Q_e*C_e)/(Q_u+ Q_e) where Q_u = 10% of the receiving stream flow parameter C_u = Receiving stream ammonia parameter Q_e = Effluent flow parameter</p>

C_e = Ammonia as N parameter

Outfall discharge will be regulated accordingly to avoid exceeding the water quality standard for ammonia as N at any time during the discharge period.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2017.08.21

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, 2020, the permittee may elect to electronically submit the following compliance monitoring data and reports instead of mailing paper forms. Beginning December 21, 2020, the permittee must report the following using the electronic reporting system:
 - a. General permit reports [e.g., notices of intent (NOI); notices of termination (NOT); no exposure certifications (NOE)];
 - b. Municipal separate storm sewer 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 Health
Division of Water Quality
918 East Divide Ave
Bismarck ND 58501-1947

F. Records Retention

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

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. Proper Operation and Maintenance

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

C. Planned Changes

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

D. Duty to Provide Information

The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

E. Signatory Requirements

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

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

All reports required by the permit and other information requested by the department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the department; and
2. 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.

V. INDUSTRIAL WASTE MANAGEMENT BP 2009.09.10
Minor POTWs Non-Approved Pretreatment Program Requirements

A. General Responsibilities

The permittee has the responsibility to protect the Publicly-Owned Treatment Works (POTW) from pollutants which would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.

B. Pollutant Restrictions

Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the permittee shall not allow, under any circumstances, the introduction of the following pollutants to the POTW from any source of nondomestic discharge:

1. Any other pollutant which may cause Pass Through or Interference;
2. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;
3. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;
4. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;
5. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;
6. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

7. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through at the POTW;
8. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
9. Any trucked or hauled pollutants, except at discharge points designated by the POTW; and
10. Any specific pollutant which exceeds a local limitation established by the permittee in accordance with the requirements of 40 CFR Section 403.5 (c) and (d).

C. Approval Authority

North Dakota was delegated the Industrial Pretreatment Program in September of 2005. The North Dakota Department of Health, Division of Water Quality shall be the Approval Authority and the mailing address for all reporting and notifications to the Approval Authority shall be:

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

D. Industrial Categories

In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Part 405 et. Seq.).

E. Notification Requirements

The permittee must notify the Approval Authority, of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) days following the introduction or change. Such notice must identify:

1. Any new introduction of pollutants into the POTW from an industrial user which would be subject to Sections, 301, 306, and 307 of the Act if it were directly discharging those pollutants; or
2. Any substantial change in the volume or character of pollutants being introduced into the POTW by any industrial user;
3. For the purposes of this section, adequate notice shall include information on:
 - a. The identity of the industrial user;
 - b. The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the POTW; and
 - c. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids produced at such POTW,

4. For the purposes of this section, a significant industrial user shall include:
 - a. Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I, subchapter N;
 - b. Any discharger which has a process wastewater flow of 25,000 gallons or more per day;
 - c. Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
 - d. Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirements.

F. Approval Authority Options

At such time as a specific Pretreatment Standard or requirement becomes applicable to an industrial user of the permittee, the Approval Authority may, as appropriate:

1. Amend the permittee's North Dakota Pollutant Discharge Elimination System (NDPDES) discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable national Pretreatment Standards;
2. Require the permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the permittee's POTW for treatment. Such requirement shall be imposed in a manner consistent with the POTW program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,
3. Require the permittee to monitor its discharge for any pollutant which may likely be discharged from the permittee's POTW, should the industrial user fail to properly pre-treat its waste.

G. Enforcement Authority

The Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the permittee, for violations of a permit, order or similar enforceable mechanism issued by the permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by EPA under 40 CFR, chapter I, subchapter N. In those cases where a North Dakota Pollutant Discharge Elimination System (NDPDES) permit violation has occurred because of requirements as necessary to protect the POTW, the North Dakota Department of Health and/or Approval Authority shall hold the permittee and/or industrial user responsible and may take legal action against the permittee as well as the industrial user(s) contributing to the permit violation.

VI. ACCEPTING HAULED WASTE

- A. The permittee may only accept waste from licensed septic haulers unless the permittee has written approval from the department.
- B. The permittee may not accept production wastewater from oil and gas operations (i.e., produced water).
- C. A monitoring plan shall be developed to ensure accepted hauled waste meets the requirements of part **VI. Industrial Waste Management**.
- D. The permittee shall maintain records indicating the hauler transporting the load, the source of the wastewater, the date and time the waste was accepted, the volume of waste accepted and any sample results from these loads.

VII. BENEFICIAL REUSES BP 2015.09.03

A. Irrigation

Only wastewater that has received secondary or tertiary treatment may be used for irrigation provided soil and water compatibility testing confirms the water is suitable for irrigation. Wastewater used for irrigation shall be applied at a rate which would allow complete infiltration and not result in ponding or runoff from the irrigated area.

Agricultural land may be irrigated provided the crop is not used for human consumption. Forage crops used for livestock consumption or pastures irrigated with wastewater shall not be harvested or grazed within 30 days of a wastewater application.

Public properties such as golf courses or parks may be irrigated provided the treated wastewater meets the following quality criteria.

Parameter	Discharge Limitations	Monitoring Frequency	
		Measurement Frequency	Sample Type
	Daily Max		
BOD ₅ (mg/l)	30.0	1 per 14 days	Grab
TSS (mg/l)	45.0	1 per 14 days	Grab
<i>E. Coli</i> (number/100 ml)	126	Weekly	Grab

Whenever possible, irrigation shall take place during hours when the public does not have access to the area being irrigated. If the public has constant access to an area, signs must be posted in visible areas during irrigation and for two hours after irrigation is completed. The signs must advise people that the water could pose a health concern and to avoid the irrigated area.

Worker and public contact with treated wastewater should be minimized. Where frequent contact is likely, a higher level of disinfection should be provided such as achieving *E. coli* counts less than 14 colonies per 100 ml.

Avoid application within 100 feet of areas which have unlimited access (i.e., yards) or within 300 feet of potable water supply wells.

Runoff that occurs from irrigated areas shall be monitored at the frequencies and with the types of measurements described in Part I(B).

The permittee shall maintain monitoring records indicating the location and usage (e.g., park or agricultural) of the land being irrigated, the dates irrigation occurred, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

B. Construction

Treated domestic wastewater may be used for construction purposes such as soil compaction, dust suppression and washing aggregate, provided the following conditions are met.

The wastewater intended for use in construction, must at a minimum, receive secondary treatment.

Prior to using treated wastewater, a sample from the prospective source must be tested and meet the criteria set below. In addition, the test results for *E. coli* must be provided to the department prior to use. Results from samples up to two (2) weeks old will be considered valid. The water quality limitations and minimum sampling frequencies recommended for wastewater used in construction are provided in the following table.

Parameter	Limitations (Maximum)	Measurement Frequency	Sample Type
BOD ₅ (mg/l)	30	Monthly	Grab
TSS (mg/l)	100	Monthly	Grab
<i>E. Coli</i> (number/100 ml)	126	Weekly	Grab

In some systems chlorination is available. Chlorination is particularly desirable when frequent worker contact with the treated wastewater is likely or when the public may have constant access to areas where the wastewater is being used. Maintaining a chlorine residual of at least 0.1 mg/l is recommended.

While the conventional methods for treating domestic wastewater are generally effective in reducing infectious agents (bacteria, viruses, parasites) to acceptable levels, direct reuse of treated wastewater can pose a health concern. Additional precautions to consider are:

1. Worker and public contact with treated wastewater should be minimized.
2. Where frequent worker contact is likely a higher level of disinfection should be provided, such as achieving *E. coli* counts less than 14/100 ml.

3. Work closely with the treatment system operator to ensure treated wastewater quality is suitable when it is drawn for construction purposes.
4. Apply the treated wastewater in a manner that does not result in runoff or ponding.

Runoff that occurs from application areas shall be monitored at the frequencies and with the types of measurements described in Part I(B).

The permittee shall maintain monitoring records indicating the location and usage of the land where application occurs, the dates application occurred, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

C. Oil and Gas Production (including Hydraulic Fracturing)

The specific user of the wastewater may determine the specific treatment requirements for receiving wastewater.

The permittee shall maintain monitoring records indicating the specific user, the amount of wastewater used, and the total flow. In addition, monitoring records must include results from collected samples.

D. Other Uses as Approved

The permittee must consult with the department before beneficially reusing wastewater for purposes not identified in this permit.