North Dakota Department of Health Public Notice Reissue of an NDPDES Permit

Public Notice Date: 5/3/2017 Public Notice Number: ND-2017-010

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: 11/18/2016 Application Number: ND0026301

Applicant Name: South Central Regional Wat Dis

Mailing Address: PO Box 4182, Bismarck, ND 58501-4182

Telephone Number: 701.258.8710

Proposed Permit Expiration Date: 6/30/2022

Facility Description

The reapplication is for a water treatment plant which supplies drinking water to rural communities. Wastewater from the operation of the microfiltration and reverse osmosis membranes discharges through diffusers placed in the Missouri River. The discharge is located in the SE 1/4, Section 21, T140N, R81W. The Missouri River is a Class I stream.

Tentative Determinations

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

Information Requests and Public Comments

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

All comments received by June 03, 2017 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

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FACT SHEET FOR NDPDES PERMIT ND-0026301

SOUTH CENTRAL REGIONAL WATER DISTRICT NORTH BURLEIGH WATER TREATMENT PLANT BISMARCK, ND

FACT SHEET DATE – January 2017

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), for which the U.S. 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 (NDDoH) 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 the 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 North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following rules or regulations apply to NDPDES permits:

- Procedures the department follows for issuing NDPDES permits (NDAC Chapter 33-16-01).
- > Standards of Quality for Waters of the State (NDAC 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 NDDoH 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 NDDoH 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 NDDoH may make changes to the draft NDPDES permit. The NDDoH will summarize the responses to comments and changes to the permit in **Appendix D - Response to Comments**.

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BACKGROUND INFORMATION

Table 1. General Facility Information

Applicant:	South Central Regional Water District		
Facility Name and Address:	South Central Regional Water District North Burleigh Water Treatment Plant 10700 Highway 1804 North Bismarck, ND 58502-4182		
Permit Number:	ND0026301		
Permit Type:	Non POTW, Permit Renewal		
Type of Treatment:	BMPs		
SIC Code:	4941		
Discharge Location:	Missouri River, Class 1 Latitude: 46.923094 Longitude: -100.895522		
Hydrologic Code:	10130101 - Painted Woods-Square Butte Creek		

Figure 1. Aerial photograph of South Central Regional Water District North Burleigh Water Treatment Plant outfall (Google Earth 9/15/2014)



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FACILITY DESCRIPTION

South Central Regional Water District is a drinking water treatment facility (SIC 4941) located approximately 7 miles north of Bismarck, North Dakota. The facility is constructed at the site of the former Burleigh Water Users Cooperative treatment plant which discontinued operation in 1996. The facility serves rural cities and residences in a five county area, Burleigh, Emmons, McIntosh, Logan, and Kidder.

The source water for the plant is from horizontal wells bored below the bed of the Missouri River and screened at a depth ranging from about 15 to 35 feet. The discharge is wastewater generated in the water filtration and treatment processes used in the production of drinking water for distribution. The wastewater discharge consists of backwash from microfiltration equipment, concentrate from reverse osmosis treatment and cleaning solutions required for routine maintenance of the treatment equipment.

The plant has the design capacity to produce approximately 2400 gallons per minute (GPM) of finished water and in the process generate a continuous waste discharge of approximately 275 GPM. The discharge monitoring reports (DMRs) submitted to the department over the previous permit period show a maximum discharge rate of 295 GPM, highest average flow rate of 212 GPM, and lowest average flow rate of 109 GPM. The wastewater discharges to diffusers placed in the Missouri River, a Class 1 stream, in the NE ¼, NE ¼, Section 28, T140N, R81W. latitude 46.923094, longitude -100.895522.

The facility was completed in two phases with the schedule being as follows:

	Year	Design Capacity	Projected Wastewater Flow @ Design Capacity
Phase I	2007	850 GPM	97 GPM (0.216 cfs)
Phase II	2010	2400 GPM	275 GPM (0.613 cfs)

In consideration of initial permit requirements for this proposed discharge, the department based all evaluations on the operation of the plant at its planned full (Phase II) capacity. Reasonable potential was evaluated for each parameter listed in the proposed permit. The initial permit application, including separate mixing zone analysis, provided a description of plant processes, anticipated wastewater quality and membrane cleaning processes, all of which is still correct and applicable to the reissued permit.

The wastewater discharge from the facility will be a combined waste stream from all processes and are summarized below:

Wastewater Source	Process	Nature of Waste	Expected Flow (Phase II)
Microfiltration (MF)	Remove particulates	Filter backwash	82 GPM

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Reverse Osmosis (RO)	minerals & provides high mineral content		193 GPM
Membrane cleaning	Clean and condition MF & RO membranes	Neutralized acid & caustic, disinfectant and cleaning solutions	12000 gal/mo 0.28 GPM (30d Avg) 100 GPM (max)

Discharge Outfall

Outfall 001: Active. Final Outfall. Process Wastewater. The discharge is a combination of all process wastewater streams generated during the production f finished potable water which includes reverse osmosis concentrate, microfiltration backwash, and membrane cleaning solutions. The wastewater discharges to two diffusers placed in the Missouri River, a Class 1 water body, in the NE ¼, NE ¼, Section 28, T140N, R81W, or latitude 46.923094, longitude - 100.895522.

PERMIT STATUS

The department issued the previous permit for this facility on July 1, 2012. The previous permit placed monitoring requirements on Conductivity, Sulfate (Total as SO4), Chloride (Total), Sodium (Total), Iron (Total), Total Residual Chlorine (TRC), Manganese (Total), BOD (5-Day), Fecal Coliform, pH, and General Chemistry.

SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED

Department staff last conducted a non-sampling compliance inspection on April 19, 2017. The department's assessment of the compliance is based on review of the facility's Discharge Monitoring Reports (DMRs) and inspections conducted by department staff.

Past Discharge Data

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

Table 2: Summary of DMR data (July 1, 2012 to January 31, 2017). Outfall 001

Parameter	Units	Range	Average	Permit Limit	# of Excursions
BOD5	mg/l	<5 – 40.1	6.9	30 30 Day Avg. 45 Daily Max.	1
Chlorides	mg/l	28.6 – 71.9	47.59	NA	0
Chlorine Tot Res	mg/l	0 – 0.29	0.0139	NA	0
Conductivity	uS/cm	1605 - 5011	3327	NA	0
Fecal	#/100 ml	0 - 1	0.6	NA	0
Iron Total	mg/l	<0.1 – 3.30	0.085	1 30 Day Avg. 1.5 Daily	1

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Parameter	Units	Range	Average	Permit Limit	# of Excursions
				Max.	
Manganese Total	mg/l	<0.05 – 0.48	0.113	1 30 Day Avg. 1.5 Daily Max.	0
pН	S.U.	6.1 – 9.1	NA	7.0 – 9.0	12
Sodium	mg/l	233 - 497	358.76	NA	0
Sulfates	mg/l	720 - 1550	1148.24	NA	0
Drain/Qtr	MG	14.2 – 28.13	21.83	NA	NA
Flow	MGD	0.157 - 0.425	0.277	NA	NA

PROPOSED PERMIT LIMITS

EFFLUENT LIMITATIONS

The discharge of wastewater generated in the production of drinking water is not regulated by national effluent guidelines, which establish technology-based effluent limitations for various industries. In the absence of a federal standard, limitations may be determined using "best professional judgment" (BPJ) and "water quality standards" (WQS) 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 the receiving waters. In the initial application, the applicant provided a mixing zone analysis and diffuser design to demonstrate that the effluent would have complete mixing within the mixing zone allowed in the state's water quality standards.

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

Table 3. Effluent Limits for Outfall 001

Effluent Parameter	30-Day Average	Daily Maximum	Basis ^a
Total Suspended Solids (TSS), mg/l	*	90	BPJ
Conductivity, umho/cm	*	*	Previous Permit, BPJ
pH, SU		between 7.0 to	Previous Permit, WQS
Sulfate (Total as SO ₄), mg/l	*	*	Previous Permit, WQS
Chloride (Total), mg/l	*	*	Previous Permit, BPJ
Sodium (Total), mg/l	*	*	Previous Permit, BPJ
Turbidity	*	*	Previous Permit, BPJ
Phosphorus (Total), mg/l	*	*	Previous Permit, BPJ

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Table 3. Effluent Limits for Outfall 001

Effluent Parameter	30-Day Average	Daily Maximum	Basis ^a
Silica, mg/l	*	*	Previous Permit, BPJ
Iron (Total), mg/l	1	1.5	Previous Permit, BPJ
Manganese (Total), mg/l	1	1.5	Previous Permit, BPJ
Total Residual Chlorine, mg/l b	*	2.7	Previous Permit, BPJ
BOD (5-Day), mg/l °	30	45	Previous Permit, BPJ
Fecal Coliform (incl. e.coli), #/100/ml ^d	*	*	Previous Permit, BPJ
Flow, MGD	*	*	Previous Permit, BPJ
Total Drain, MGAL	*	*	Previous Permit, BPJ

Notes:

- *. This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.
- a. The basis of the effluent limitations is given below:

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

"WQS" refers to effluent limitations based on the *State of North Dakota's Standards of Quality for Waters of the State*. NDAC Chapter 33-16-02.1.

"BPJ" refers to limits based on the department's "best professional judgment" which considers the technology available at the facility for controlling the discharge.

- b. Total Residual Chlorine monitoring is required only during periods when chlorinated waste streams are discharged (such as from the microfiltration unit "bio-fouling" control).
- c. The samples for 5-Day BOD shall be collected on days when treatment unit cleaning/conditioning wastes are discharged. The composite sample should be proportioned to reflect the approximate time cleaning/conditioning waste containing organic chemicals (such as citric acid) are discharged.

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Table 3. Effluent Limits for Outfall 001

	Effluent Parameter	30-Day Average	Daily Maximum	Basis ^a
d.	The monitoring requirements f discharges which may occur fr			

SELF-MONITORING REQUIREMENTS

All effluent samples shall be collected at a point following the addition of all process waste streams and prior to entering the Missouri River.

Table 4. Self-Monitoring Requirements for Outfall 001

Effluent Parameter	Frequency	Sample Type
Conductivity, umho/cm	Continuous	Recorder
pH, SU	Continuous	Recorder
TSS mg/l	1/Quarter	Composite
Turbidity	1/Quarter	Composite
Sulfate (Total as SO ₄) mg/l	Monthly	Composite
Chloride (Total) mg/L	Monthly	Composite
Sodium (Total) mg/L	Monthly	Composite
Iron (Total) mg/L	Monthly	Composite
Manganese (Total) mg/L	Monthly	Composite
Phosphorus (Total) mg/l	1/Quarter	Composite
Silica mg/l	1/Quarter	Composite
Total Residual Chlorine mg/L	Conditional	Grab
BOD (5-Day) mg/L	Conditional	Composite
Fecal Coliform (incl. e.coli) #/100/ml	Conditional	Grab
Flow, MGD	Continuous	Recorder
Total Drain, MG	Monthly	Calculated

In addition to the discharge monitoring results; information on the dates of discharge, frequency of monitoring and number of exceedances must be included in the electronic reporting of DMRs. Electronic reporting of DMRs shall be submitted for every three month period, with reporting periods from April 1 through June 30, July 1 through September 30, etc.

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

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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.

This segment of the Missouri River does not have a TMDL and is not on the Section 303(d) List of Waters needing TMDLs. The department will assess the status of this river segment during the next permit cycle.

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 state water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

Narrative Criteria

Narrative water quality criteria (NDAC Section 33-16-02.1-08) 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 33-16-02.1 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.

This 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 water quality standards contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33-16-02.1 (Appendix III). This policy addresses

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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 WATER QUALITY-BASED EFFLUENT LIMITS FOR NUMERIC CRITERIA

Discussion of Limited Parameters and Receiving Stream Conditions

An essential part in the development of an NDPDES discharge permit is an evaluation to assure that the proposed wastewater discharge will comply with the State's Water Quality Standards. In addition to the numeric standards, the discharge must conform to supplementary policies and procedures included in the standards such as anti-degradation criteria and the mixing zone and dilution policy. For the consideration of potential water quality-based limits as well as the state's mixing zone and dilution policy, the following river conditions were used in the initial permit:

Critical Low Flow	Flow	Stream width	Velocity	Depth
7Q10	9870 cfs	570 feet	1.5 to 3.0 ft/s	3 feet
Typical	15,000 cfs	700 feet	1.5 to 3.0 ft/s	6 feet

From: Mixing Zone Modeling Results; Bartlett & West Engineers

Upstream dams mostly regulate the flow of the river. In contrast to the critical low flow, the mean daily flow of the river at Bismarck is approximately 24,000 cfs (USGS stream gauging records) at the time of initial permitting. The critical low flows specified in the water quality standards for evaluating mixing zone dilution and numeric standards (i.e., 4-day, 3-year flow biologically based) were not calculated for reviewing this discharge. To simplify the review for this discharge the 7Q10 flow value was used as the critical design stream flow for evaluating impacts on the water body. Given the magnitude of historic river flow rates and nature of the discharge it is believed that the determinations made using the 7Q10 flow will not be significantly different than those determined using the critical low flow averaging periods specified in the water quality standards.

At the critical low flow of 9870 cfs there is ample river flow available for considering dilution in setting limits for select parameters. To prevent adverse effects in the vicinity of the discharge the amount of dilution considered for evaluating discharge effects will be limited to that which would occur within the mixing zone. The Missouri River in the vicinity of the discharge is not listed on the state's 303d list of impaired waters and there are no other discharges in the vicinity, which could result in an overlapping mixing zone. A mixing zone and dilution analysis was completed for the proposed discharge using the CORMIX model. The details of the model inputs and results were provided with the permit application. A summary of the mixing zone considerations and model results are as follows:

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Diffuser (Proposed): 10-foot multi-port placed flush with streambed

Model program: CORMIX (Cornell Mixing Zone Model)

Mix Zone considered: Near instantaneous and Complete (WQS App. III, Step 5)

Criteria to meet: Less that 10% difference in concentration

Distance allowed: 1140 feet (2 x stream width)

Distance modeled: 165 feet (worst case, 7Q10 with 1.5 fps velocity)

The results of the model indicate that the proposed diffuser would provide near instantaneous mixing well within the dimensions outlined in the water quality standards. Near instantaneous and complete mixing is defined as no more than a 10% difference in bank-to-bank concentrations within a longitudinal distance not greater than two stream widths (WQS App. III). The limit considerations for this permit have been made based on the amount of dilution and extent of mixing zone predicted by the model rather than the full extent of the allowable mixing zone. The additional dilution that may be afforded by the full extent of the mixing zone verses the modeled endpoint (10% difference) represents a substantial margin of safety.

The concentration of dissolved minerals in the waste stream from the reverse osmosis process has the potential to diminish beneficial uses of a water body and adversely affect water quality. The State's Water Quality Standards do not include numeric criteria for total dissolved solids (TDS), a combined measure of dissolved minerals. However, the standards do include criteria for sulfate, chloride and sodium; which are constituents of TDS. The expected sulfate concentration in the discharge represents the most limiting of the mineral constituents in regard to the water quality standards. Accordingly, the model simulations were run using the sulfate values for the waste stream and the river to evaluate the mixing afforded by the diffuser options.

Sulfate

The projected effluent concentration for sulfate is approximately 1500 mg/L. Using the mass balance relationship to calculate the amount of initial dilution provided by the modeled diffuser (approximately 140:1) and a background sulfate in the river of 140 mg/L, a monthly average discharge concentration of greater than 2000 mg/L sulfate would be necessary to cause an increase of more than 15% above background conditions beyond the mixing zone. There was no reasonable potential for the discharge, as proposed, to cause a violation of the applicable water quality standard for sulfate of 250 mg/L (30day average) during the initial permitting period.

Based on DMR data there is no reasonable potential for the discharge as reported to cause a violation of the applicable water quality standard for sulfate of 250 mg/L (30day average) so the limitations and monitoring requirements of the previous permit are continued in this reissuance.

Chloride and Sodium

Chloride and sodium were evaluated in the same manner as outlined for sulfate and it was determined that there would be no reasonable potential to violate the respective water quality standards during the initial permitting period. The projected effluent concentrations for chloride and sodium are 77 mg/L and 514 mg/L respectively. The background river concentrations used to determine the potential effects for chloride and sodium were 10 mg/L and 60 mg/L respectively. To cause an increase of more than 15% at the end of the mixing zone the chloride would need to be 150 mg/L and the sodium would need to be 900 mg/L.

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Chloride and sodium were evaluated in the same manner as outlined for sulfate and it was determined that there would be no reasonable potential to violate the respective water quality standards so the limitations and monitoring requirements of the previous permit are continued in this reissuance.

To ensure that the operation of the discharge reflects the proposed design capabilities and the information from the CORMIX model, the permit will include threshold values for reevaluating the potential effect of the mineral parameters (sulfate, chloride and sodium). A new mixing zone analysis and field verification of the mixing zone will be required if the discharge exceeds any of the following monthly average values more than two times in a six month period: 2000 mg/L sulfate; 150 mg/L chloride; or 900 mg/L sodium.

Total Residual Chlorine

The limitation for Total Residual Chlorine (TRC) has been proposed since there is the potential for the discharge to contain TRC from the anticipated MF unit disinfection procedures. Although the disinfection process would be infrequent and the application indicates that dechlorination would be provided, the acute standard for TRC is extremely low (0.019 mg/L). Thus it is appropriate to consider a limit for TRC. The proposed maximum limit (2.7 mg/L) was determined using the initial dilution determined for the diffuser (approximately 140:1). Unlike the mineral parameters where additional mixing zone could be considered, the acute criteria for TRC is only afforded the dilution provided by near instantaneous and complete mixing. A monthly average limit has not been proposed since the chlorination will only be practiced on an infrequent basis, approximately monthly, as provided in the application.

The limitation for Total Residual Chlorine (TRC) is continued from the previous permit since there is the potential for the discharge to contain TRC from the anticipated microfiltration unit disinfection procedures.

Iron and Manganese

The limitation for iron and manganese are typical of limits assigned to other water treatment plants in the state. The application indicates that iron and manganese will be removed in the process and the anticipated concentrations in the discharge will be well below the proposed limitations. The limits have been included to assure the plant is operated to control the parameters as planned and to prevent the possibility of objectionable deposits of iron and manganese in the vicinity of the discharge. The State's Water Quality Standards do not include numeric criteria for iron or manganese.

DMR forms reported 1 exceedance of the Iron limit. The limitations for Iron and Manganese are continued from the previous permit.

Biochemical Oxygen Demand

The BOD limits are standard limitations applied to domestic wastewater and similar organic wastewater discharges. While during most times of operation an appreciable BOD load is not expected, some of the cleaning chemicals proposed for use in MF and RO maintenance may include organic acid that may present a BOD load when discharged. The proposed limits will provide criteria for the plant operators to consider when planning the use of organic based chemicals and discharge rate from the neutralization tank after such use.

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The BOD limits are continued from the previous permit.

TSS

Other water treatment plants in the state have been afforded a limit of 90 mg/l for TSS and so the department proposes to continue with the same limit here by using BPJ.

Fecal Coliform

Testing for fecal coliform (including E. coli.) has been included for diagnostic purposes. Fecal coliform serves as an indicator for microorganisms and potential pathogens. Based on the source water for the plant, the discharge is not expected to contain sufficient fecal coliform to cause a water quality standard violation -- even in the immediate vicinity of the discharge diffuser. However, there is some uncertainty on the numbers of microbes that may be concentrated in the filters and the rate such organisms could multiply within the system. The sampling will allow the further evaluation of the potential water quality impacts and risk to the general public using the river in the vicinity of the discharge.

The fecal coliform limit is continued from the previous permit.

pН

The limitation for pH is based on the state water quality standard applicable to this water body. For Class I and IA streams, the pH limitation is from 7.0 to 9.0.

DMR forms reported 12 exceedances of the pH limit. The pH limits are continued from the previous permit.

Monitoring Parameters

After reviewing General Chemistry Analysis results with ambient data, the department proposes to remove the quarterly General Chemistry Analysis requirement and only require quarterly monitoring of the following parameters from the original General Chemistry Analysis because no testing was performed on them to collect data: Turbidity, Phosphorus, and Silica.

After reviewing the facility's DMR data, the department proposes to grant the permittee's request for reduced frequency of monitoring by reducing the monitoring frequency from weekly to monthly for the following parameters: Manganese, Iron, Sulfate, Chloride, and Sodium.

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 reevaluate this discharge for impacts to human health at the next permit reissuance.

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MONITORING REQUIREMENTS

The department requires monitoring, recording, and reporting ((NDAC Chapter 33-16-01; 21 through 23) and 40 CFR 122.41) to verify 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

WATER TREATMENT ADDITIVES

The membrane filtration equipment requires routine cleaning and conditioning as part of the normal operation. While using these chemicals in routine cleaning and conditioning, such as the control of scaling and bio-fouling, care should be used in the selection and management of these chemicals. To ensure selection and management of chemicals used in this facility minimize the potential for harmful effects in the discharge or sewering, the permittee will be required to provide the following information on chemical additives. The information on the chemical additives shall include the following usage and discharge information:

- Material Safety Data Sheet (MSDS);
- The proposed water additive discharge concentration:
- The discharge frequency (i.e. number of hours per day and number of days per year);
- The monitoring point from which the product is to be discharged;
- The type of removal treatment, if any, that the water additive receives prior to discharge;
- Product function (i.e. microbiocide, flocculant, etc.);
- A 48-hour LC₅₀ or EC₅₀ for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp. Or *Simocephalus* sp.); and
- The results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean).

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

EXPIRATION DATE: JUNE 30, 2022

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prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

PROPOSED PERMIT ISSUANCE

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



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APPENDIX A - PUBLIC INVOLVEMENT INFORMATION

The department proposes to issue a permit to the **South Central Regional Water District North Burleigh Water Treatment Plant**, Burleigh County, North Dakota. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and the department's reasons for requiring permit conditions.

The department will place a Public Notice of Draft on **May 3rd**, **2017** in the **Bismarck Tribune** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

The Notice:

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

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

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

The primary author for this permit and fact sheet is Sarah Starr.

EXPIRATION DATE: JUNE 30, 2022

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North Dakota Department of Health Public Notice Reissue of an NDPDES Permit

Public Notice Date: 5/3/2017

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

Public Notice Number: ND-2017-010

Application Date: 11/18/2016 Application Number: ND0026301

Applicant Name: South Central Regional Wat Dis

Mailing Address: PO Box 4182, Bismarck, ND 58501-4182

Telephone Number: 701.258.8710

Proposed Permit Expiration Date: 6/30/2022

Facility Description

The reapplication is for a water treatment plant which supplies drinking water to rural communities. Wastewater from the operation of the microfiltration and reverse osmosis membranes discharges through diffusers placed in the Missouri River. The discharge is located in the SE 1/4, Section 21, T140N, R81W. The Missouri River is a Class I stream.

Tentative Determinations

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

Information Requests and Public Comments

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

All comments received by June 03, 2017 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

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APPENDIX B - 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 nth root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
- 12. "Grab" for monitoring requirements, means a single "dip and take" sample collected at a

EXPIRATION DATE: JUNE 30, 2022

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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.

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APPENDIX C - DATA AND TECHNICAL CALCULATIONS

DFLOW

USGS gage station 06342500 on the Missouri River by Bismarck, ND was used to determine critical low flows using the DFLOW (3.1b) program. Data used for these calculations ranged from years1997 through 2017.

DFLOW 1B3 (ACUTE)	9660	CFS	DFLOW 1Q10 (ACUTE)	9370	CFS
DFLOW 4B3 (CHRONIC)	9910	CFS	DFLOW 7Q10 (CHRONIC)	9720	CFS
DFLOW 30B10 (AMMONIA)	NA	CFS			

FACT SHEET FOR NDPDES PERMIT ND-0026301 SOUTH CENTRAL REGIONAL WATER DISTRICT – NORTH BURLEIGH WTP **EXPIRATION DATE: JUNE 30, 2022**

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APPENDIX D - RESPONSE TO COMMENTS

Comments received during the public notice period will be placed here.



Permit No: ND0026301 Effective Date: July 1, 2017 Expiration Date: June 30, 2022

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,

Dakota Century Code,
South Central Regional Water District
is authorized to discharge from the North Burleigh Water Treatment Plant
to the Missouri River, a Class I stream
provided all the conditions of this permit are met.
This permit and the authorization to discharge shall expire at midnight,
June 30, 2022.
Signed this day of
Karl H. Rockeman, P.E. Director
Division of Water Quality

BP 2014.06.12

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DEFINITIONS

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- 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.
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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 001 – Active. Final Outfall. The discharge will be conveyed via a pipeline from the WTP to the Missouri River, a Class I water body. The outfall consists of two submerged diffusers in the stream bed. The installed location of the outfall is at Latitude: 46.923094; Longitude: -100.895522, in Burleigh County. All discharge water is generated from the water treatment process.

PERMIT SUBMITTALS SUMMARY

Coverage Point	Submittal	Frequency	First Submittal Date	
001A	Discharge Monitoring Report	1/Quarter	October 31, 2017	
Application Renewal	NPDES Application Renewal	1/permit cycle	December 31, 2021	

SPECIAL CONDITIONS

Water Treatment Additive Information

To ensure selection and management of chemicals used in this facility minimize the potential for harmful effects in the discharge, the permittee may be required to provide, upon request, the following information on chemical additives. The information on the chemical additives shall include the following usage and discharge information:

- a. Material Safety Data Sheet (MSDS);
- b. The proposed water additive discharge concentration;
- c. The discharge frequency (i.e., number of hours per day and number of days per year);
- d. The monitoring point from which the product is to be discharged;
- e. The type of removal treatment, if any, that the water additive receives prior to discharge;
- f. Product function (i.e., microbiocide, flocculant, etc.);
- g. A 48-hour LC₅₀ or EC₅₀ for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp. or *Simocephalus* sp.); and
- h. The results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean).

I. LIMITATIONS AND MONITORING REQUIREMENTS

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall as specified to the following: **Missouri River, a Class I stream.**

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 limit and monitor all discharges as specified below:

Table 1: Effluent Limitations and Monitoring Requirements Outfall 001					
		imitations	Monitoring Requirements		
Parameter	Avg. Monthly Limit	Daily Maximum Limit	Sample Frequency	Sample Type	
Total Suspended Solids, mg/l	*	90	1/Quarter	Composite	
pH, SU	Shall remain betw	veen 7.0 to 9.0 SU	Continuous	Recorder	
BOD (5-Day), mg/l ³	30	45	Conditional	Composite	
Fecal Coliform (incl. e.coli), #/100 ml ⁴	*	*	Conditional	Grab	
Conductivity, umho/cm	*	*	Continuous	Recorder	
Total Residual Chlorine, mg/l ²	*	2.7	Conditional	Grab	
Turbidity	*	*	1/Quarter	Composite	
Sulfate (Total as SO ₄), mg/l	*	*	Monthly	Composite	
Manganese (Total), mg/l	1	1.5	Monthly	Composite	
Sodium (Total), mg/l	*	*	Monthly	Composite	
Chloride (Total), mg/l	*	*	Monthly	Composite	
Iron, mg/l	1	1.5	Monthly	Composite	
Silica, mg/l	*	*	1/Quarter	Composite	
Phosphorus (Total), mg/l	*	*	1/Quarter	Composite	
Effluent Flow, MGD	Report	Report Max. Daily Value	Continuous	Recorder	

Table 1: Effluent Limitations and Monitoring Requirements Outfall 001				
	Effluent Limitations		Monitoring Requirements	
Parameter	Avg. Monthly Limit	Daily Maximum Limit	Sample Frequency	Sample Type
Total Flow, MGAL	Report Total Discharged		Monthly	Calculated

Notes:

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

Stipulations:

- The permitting authority must be notified, in advance, of any facility expansions, additions, or modifications to increase the amount of discharge in accordance with part III(C) "Planned Changes". The increase in any effluent limitation is considered a major permit modification. Major modifications require the issuance of a public notice inviting public comment.
- 2. Total Residual Chlorine monitoring is required only during periods when chlorinated waste streams are discharged (such as from the microfiltration unit "bio-fouling" control).
- 3. The samples for 5-Day BOD shall be collected on days when treatment unit cleaning/conditioning wastes are discharged. The composite sample should be proportioned to reflect the approximate time cleaning/conditioning waste containing organic chemicals (such as citric acid) are discharged.
- 4. The monitoring requirements for fecal coliform (including E. coli.) shall be in effect for discharges which may occur from April 1 through October 31.

II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2016.06.14

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

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

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

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

B. Test Procedures

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

C. Recording of Results

Records of monitoring information shall include:

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

D. Additional Monitoring

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

E. Reporting of Monitoring Results

- 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. Starting on December 21, 2016, the permittee must submit DMRs, electronically, using the electronic reporting system. Beginning December 21, 2016, the permittee must submit DMRs using the electronic information reporting system.
- 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:

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

The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

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

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Twenty-four Hour Notice of Noncompliance Reporting

- 1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The following occurrences of noncompliance shall be included in the oral report to the department at 701.328.5210:
 - a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit under <u>G. Bypass of Treatment Facilities</u>;
 - 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 <u>Part II.E. Reporting of Monitoring Results.</u> The department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the department at 701.328.5210 as identified above.

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

G. Bypass of Treatment Facilities

- 1. <u>Bypass not exceeding limitations</u>. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to any of the following provisions in this section.
- 2. <u>Bypass exceeding limitations-notification requirements.</u>
 - 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 <u>F. Twenty-four Hour Notice of Noncompliance Reporting</u>.
- 3. <u>Prohibition of Bypass.</u> Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. The permittee submitted notices as required under the <u>1. Anticipated Bypass</u> subsection of this section.

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

H. Upset Conditions

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

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

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

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

I. Duty to Mitigate

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

J. Removed Materials

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

K. Duty to Reapply

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

IV. GENERAL PROVISIONS

A. Inspection and Entry

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

B. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the department and EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

C. Transfers

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

D. New Limitations or Prohibitions

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

E. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

F. Need to Halt or Reduce Activity Not a Defense

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

G. State Laws

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

H. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

I. Property Rights

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

J. Severability

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