

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STATEMENT OF BASIS**

PERMITTEE: Rosebud Hotel and Casino

FACILITY NAME AND ADDRESS: Rosebud Hotel and Casino
Wastewater Treatment Facility
30421 US-83,
Valentine, Nebraska 69201

PERMIT NUMBER: SD-0034584

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PERMIT TYPE: Minor, Permit Renewal, POTW

FACILITY LOCATION: Northeast ¼ of Section 23,
Township 35 North, Range 28 West;
latitude 43.0005° N,
longitude 100.5763° W

1 INTRODUCTION

This statement of basis (SoB) is for the issuance of a National Pollutant Discharge Elimination System (NPDES) permit (the Permit) to the Rosebud Hotel and Casino (Casino) for the Rosebud Hotel and Casino Wastewater Treatment Facility (Facility). The Permit establishes discharge limitations for any discharge of wastewater from the Facility through Outfall 001 to an unnamed tributary to Rock Creek. The SoB explains the nature of the discharges, EPA's decisions for limiting the pollutants in the wastewater, and the regulatory and technical basis for these decisions.

The Facility is located on the Rosebud Indian Reservation. EPA Region 8 is the permitting authority for facilities located in Indian country, as defined in 18 U.S.C. § 1151, located within Region 8 states and implements federal environmental laws in Indian country consistent with the [EPA Policy for the Administration of Environmental Programs on Indian Reservations](#) and the federal government's general trust responsibility to federally recognized Indian tribes.

2 MAJOR CHANGES FROM PREVIOUS PERMIT

Major changes from the previous permit include the following:

- Total Suspended Solids (TSS) monitoring has been revised from a frequency of three samples per week, to a monthly monitoring frequency. See section 7.1 of the SoB.
- Temperature monitoring has been added to the permit with a quarterly frequency and a grab sample type. See section 7.1 of the SoB.
- *Escherichia coli* (*E. coli*) monitoring has been revised from seasonal monitoring to year-round monitoring. See section 7.1 of the SoB.
- An asset management plan (AMP) has been added to the operations and maintenance requirements. See section 10.2 of the SoB.
- Operation and maintenance monitoring requirements for dissolved oxygen and sludge depths have been removed. See section 10.2 of the SoB.

3 BACKGROUND INFORMATION

The Facility is the Rosebud Hotel and Casino's Wastewater Treatment Facility and is located on U.S. Highway 83, immediately north of the Nebraska-South Dakota state line in Todd County, South Dakota in the northeast ¼ of Section 23, Township 35 North, Range 28 West. The Facility is owned and operated by the Rosebud Sioux Tribe and has one outfall that discharges treated effluent from the Rosebud hotel, casino, restaurant, and adjacent fuel plaza. The outfall is located at latitude 43.0005° N, longitude 100.5763° W. The following background information was obtained from the Rosebud Hotel and Casino's application for renewal of the permit, which EPA received on September 9, 2022.

3.1 Service Area Description

The Rosebud Hotel and Casino consists of a hotel, casino, restaurant, and fuel plaza. Based on the permit renewal application, the fuel plaza was built in 2005 – 2006 (Figure 1). It sells

gasoline and diesel fuel. The fuel plaza also has a convenience store that sells sundry items. It does not have a car or truck wash. Domestic wastewater is piped from the fuel plaza to a lift station and then to the Facility.

The hotel is a Quality Inn with 60 guest rooms, two small meeting rooms (less than 30 person capacity each), and a small indoor pool (approximately 8,500 – 9,000 gallon capacity). Before the pool is drained for maintenance, the water is tested for total chlorine levels. Sodium thiosulfate is added until all chlorine is neutralized before being drained to the Facility.

The casino consists of a gaming floor and a bingo hall/entertainment center. The bingo hall/entertainment center is used for gaming, bingo games, meetings/conventions, and indoor concerts. It has a maximum capacity of 500 persons and has two large restrooms. Wastewater from the restrooms is piped to the Facility. The casino gaming floor has four restrooms. The wastewater from these restrooms is also piped to the Facility. The gaming floor has a maximum capacity of 810 persons. The casino also has about 100 to 150 employees.

The deli and the restaurant are open daily. The kitchen in both the restaurant and deli are connected to a cement vault grease trap, in line with the sewer system. The grease trap is monitored once per week by the wastewater operator. The grease trap is pumped out as needed by a contractor and hauled off site.

A separate annex serves as the administration offices for the casino. It is served by two restrooms and the wastewater is piped to a lift station and then to the Facility.

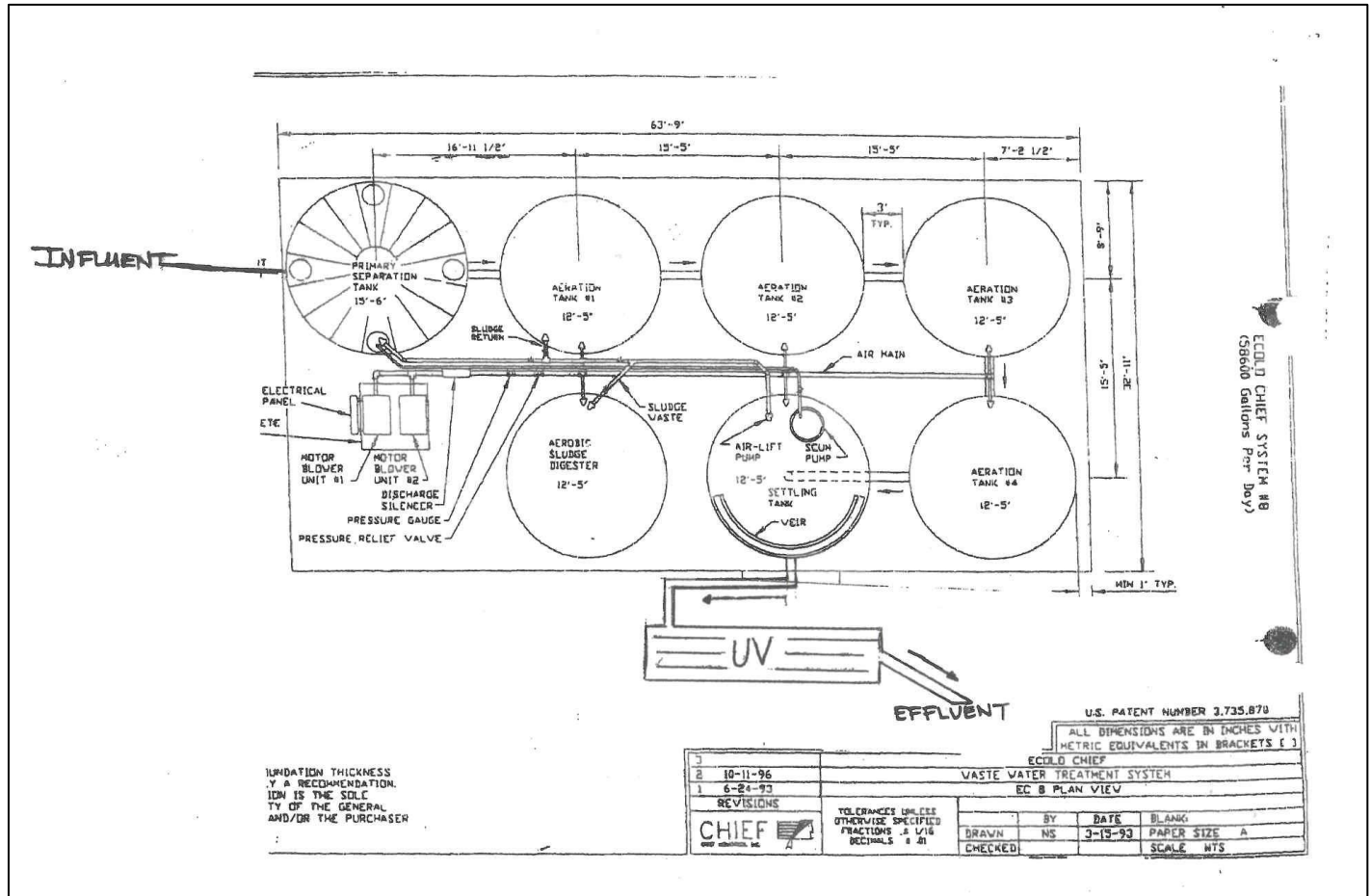
Figure 1. Location of Facility, discharge point, and wetland-like feature



Treatment Process

The Facility's treatment process consists of a mechanical plant. A grease trap, discussed in Section 3.1, pretreats wastewater from the deli and restaurant kitchen. The permit application's supplementary information outlines the current mechanical plant as an Eco-Chief model of Chief Industries, Inc. and consists of a primary settling tank, four sequential high-rate aeration tanks, a final settling tank, an aerobic digester for waste sludge, and an ultraviolet (UV) disinfection system (Figure 2). The average design flow of the system is 58,000 gallons per day (gpd) with a peak flow design of 87,900 gpd.

Figure 2. Rosebud Casino Wastewater Treatment Facility Schematic



3.2 Chemicals Used

No chemicals are added during the treatment process. The discharge is treated with UV light to control bacteria.

4 PERMIT HISTORY

According to EPA records maintained for the Facility, this renewal is at least the 3rd issuance of this NPDES permit. The previous permit for the Facility became effective on October 1, 2017 and was set to expire on September 30, 2022. The Facility submitted a permit renewal application prior to the permit's expiration, and thus the previous permit was administratively continued.

4.1 Discharge Monitoring Report (DMR) Data

The Facility's January 2018 through December 2022 DMR data for Outfall 001 is summarized in Table 1. Outfall 001 is reported to discharge continuously.

Table 1. Summary of the DMR Data (2018-2022) for Outfall 001 from EPA Integrated Compliance Information System (ICIS) database (date accessed 2/15/2022)

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Excursions
Discharge Volume, gallons per day	N/A	25,003	17.2 – 36,988	20	N/A
5-Day Biochemical Oxygen Demand (BOD ₅), 30-Day average, mg/L	30	2.89	0.2 - 8.0	16	0
5-Day Biochemical Oxygen Demand (BOD ₅), 7-Day average, mg/L	45	7.74	2.0 - 30.8	15	0
BOD ₅ % Removal	85%	95.40%	89.1 - 99.4%	17	0
Total Suspended Solids (TSS), 30-Day average, mg/L	30	5.54	0.73 - 20.3	16	0
Total Suspended Solids (TSS), 7-Day average, mg/L	45	16.38	2.0 - 47.9	15	1
TSS % Removal	85%	92.60%	87 - 98%	18	0
<i>E. coli</i> , 30-Day average, cfu/100 mL	126	8.37	0.1 - 22.8	6	0
<i>E. coli</i> , daily maximum, #/100 mL	410	5,007	0.2 – 30,000	6	1
pH, standard units	6.0 – 9.0	7.97	6.82 – 8.98	16	0
Oil and Grease, Visual	N/A	Never observed	Never observed	11	N/A
Floating Solids or Foam, Visual	N/A	Never observed	Never observed	10	N/A
Ammonia, as N, mg/L	N/A	8.32	0.06 – 41.7	15	N/A
Total Nitrogen, mg/L	N/A	23.8	14.8 – 48.3	6	N/A
Total Phosphorus, mg/L	N/A	3.27	1.33 – 5.09	9	N/A

From January 2018 to December 2022, the Facility exceeded the TSS limit once (March 2019) and the *E. coli* limit once (June 2019). The reported potential noncompliance are provided in Table 2.

Table 2. Summary of Potential Noncompliance

Parameter	Permit Limit(s)	Month	Comments
Total Suspended Solids (TSS), 7-Day average, mg/L	45	March 2019	Reported 47.9 mg/L; approximately 6% over permit limit
<i>E. coli</i> , daily maximum, cfu/100 mL	410	June 2019	Reported 30,000 cfu/100 mL; approximately 7,217% over permit limit

4.2 Other Facility History

EPA conducted an on-site inspection of the Facility on September 19, 2022. The inspection included the following findings relevant to this Permit:

- Existing permit requires weekly monitoring for total suspended solids (TSS), but monthly monitoring may be sufficient, and
- Due the age of the Facility, the operators discussed that they regularly needed to drain the system and make repairs.

The inspection found that the Casino has the financial means to fix, replace, and/or purchase required instruments.

5 DESCRIPTION OF RECEIVING WATER

An examination of the USGS topographic mapping of the area indicates that the discharge from the Facility would flow in a channel through a natural wetland-like feature, northwards approximately 1 mile towards an unnamed tributary of Rock Creek (Figure 3). It is approximately 7 stream miles from the point of discharge to the confluence with Rock Creek, approximately 29 stream miles from the point of discharge to the confluence of Rock Creek and Keya Paha River and approximately another 14 stream miles from the Rock Creek/Keya Paha River confluence to the boundary of the Rosebud Indian Reservation with the state of South Dakota.

Figure 3. Facility Receiving Water



6 PERMIT LIMITATIONS

6.1 Technology Based Effluent Limitations (TBELs)

The Facility does not meet the definition of a publicly owned treatment works (POTWs) as defined in 40 CFR §403.3. Nonetheless, the waste treated, and type of treatment are sufficiently similar such that in the professional judgment of the permit writer, the secondary treatment standards for POTWs in 40 CFR part 133 should be applied.

The secondary treatment standards (40 CFR Part 133) have been developed by EPA and represent the level of effluent quality attainable through the application of secondary or equivalent treatment. The regulation applies to all POTWs. The secondary treatment standards for the Facility are listed in Table 3.

Table 3. Secondary treatment standards

Parameter	30-day average (mg/L)	7-day average (mg/L)	30-day average percent removal (%)
BOD ₅	30	45	85
TSS	30	45	85
pH	Maintained within the limits of 6.0 to 9.0		

In addition, an effluent limit has been applied for oil and grease due to the presence of a restaurant and deli. The limit for oil and grease is based on a combination of EPA Region 8 professional judgement and protecting the receiving waters from a visible “sheen or floating oil.” The visual narrative “sheen or floating oil” requirement was developed in alignment with 40 CFR § 401.16 which lists “oil and grease” as a conventional pollutant (as related to technology-based limitations in line with 40 CFR § 125.3(h)(1)) pursuant to section 304(a)(4) of the Clean Water Act (CWA), as well as the National Recommended Aquatic Life Criteria which recommends that “surface waters shall be virtually free” from floating oils of petroleum origin and floating nonpetroleum oils of vegetable or animal origin, as “floating sheens of such oils result in deleterious environmental effects.” See Section 6.2.2 for further discussion.

The previous permit contained a narrative prohibition against floating solids and visible foam. This narrative prohibition is commonly used in many NPDES permits throughout the country and Region 8 to protect against pollutants that would cause or contribute to exceedances of narrative criteria such as the one discussed above. EPA will retain this narrative prohibition based on professional judgment.

6.2 Water Quality Based Effluent Limitations (WQBELs)

The Facility discharges to a channel that flows through a wetland-like feature to an unnamed tributary of Rock Creek. The receiving water is within the Rosebud Indian Reservation. The Rosebud Sioux Tribe does not have EPA-approved water quality standards under Section 303(c) of the CWA. Section 101(a)(2) of the CWA states, “[I]t is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water to be achieved by July 1, 1983.” To achieve this Congressional goal in the absence of federally approved Tribal water quality standards (WQS) on the Reservation, EPA is considering the beneficial use of the receiving waters to include recreation and aquatic life. EPA relied on CWA § 301(b)(1)(C) and principles of Tribal sovereignty in establishing WQBELs based on EPA’s Section 304(a) recommended water quality criteria (WQC) to protect the uses of the Tribe’s receiving water(s).

This discharge is located approximately 43 stream miles upstream from the Reservation boundary with the state of South Dakota. Based on the relatively small size of the discharge, the dilution provided by Rock Creek and the Keya Paha River (still within the Reservation), and the distance from the discharge point to the border with the state of South Dakota, EPA determined this discharge has no potential to cause or contribute to a violation of South Dakota’s WQS, and they were not considered further in the development of the Permit.

The following pollutants were identified as pollutants of concern and were further analyzed to determine whether they would need to be limited in the Permit.

6.2.1 *Escherichia coli* (*E. coli*)

EPA’s 2012 Recreational Water Quality Criteria provides protective criteria for pathogens for primary contact recreational uses (“Recreational Water Quality Criteria”, Office of

Water 820-F-12-058, 2012). These contact values for *E. coli* in freshwater are 410 colony forming units [cfu]/100 mL (statistical threshold value) and 126 cfu/100 mL (geometric mean). To implement these standards in the Permit, a 30-day geometric mean limitation will be included based on the geometric mean from the total number of samples collected during the 30-day period. The permittee may collect more samples than the monthly samples specified in the self-monitoring requirements. Additionally, a daily maximum limitation will be included based on the statistical threshold value. EPA Region 8 does not allow for any type of mixing zone for bacteria – the above effluent limitations apply at the end of the discharge pipe.

Due to the various testing methods for bacteria approved in 40 CFR Part 136, and the variability in lab testing methods, EPA Region 8 implements bacteria permit limits as a generic number per volume analyzed (i.e., “Number/100 mL” or “#/100 mL”), rather than as a specific method (e.g., cfu per 100 mL or most probable number [mpn] per 100 mL).

6.2.2 Oil and Grease

EPA’s National Recommended Water Quality Criteria for Aquatic Life include a narrative criterion for aquatic life which states that surface waters shall be virtually free from floating nonpetroleum oils of vegetable or animal origin, as well as petroleum-derived oils. EPA Region 8 has developed a protocol for limiting oil and grease (see section 6.1) that aligns very closely with this narrative statement. EPA’s protocol uses a dual approach: frequent visual observations of the discharge, looking for a visible sheen or floating oil, and when either of those is observed, a sample must be immediately taken and analyzed for oil and grease with an effluent limitation of 10 mg/L. This same approach was taken in the previous permit and will be retained.

6.3 Final Effluent Limitations

Applicable TBELs and WQBELs were compared, and the most stringent of the two was selected for the following effluent limits (Table 4).

Table 4. Final Effluent Limitations for Outfall 001

Effluent Characteristic	30-Day Average Effluent Limitations a/	7-Day Average Effluent Limitations a/	Daily Maximum Effluent Limitations a/	Limit Basis b/
Biochemical Oxygen Demand (BOD ₅), mg/L c/	30	45	N/A	TBEL
BOD ₅ , percent removal d/	≥ 85%	N/A	N/A	TBEL
Total Suspended Solids (TSS), mg/L	30	45	N/A	TBEL
TSS, percent removal c/	≥ 85%	N/A	N/A	TBEL
<i>Escherichia coli</i> (<i>E. coli</i>), number/100 mL d/	126	N/A	410	WQBEL

Effluent Characteristic	30-Day Average Effluent Limitations a/	7-Day Average Effluent Limitations a/	Daily Maximum Effluent Limitations a/	Limit Basis b/
pH, standard units	Must remain in the range of 6.0 to 9.0 <i>at all times</i>			TBEL
Oil and Grease (O&G), mg/L	The concentration of oil and grease in any single sample shall not exceed 10 mg/L.			PP/TBEL
Oil and Grease (Narrative Limit)	There shall be no visible sheen in the receiving water or adjoining shoreline.			PP/TBEL
Floating Solids and Foam (Narrative Limit)	There shall be no discharge of visible floating solids or foam in other than trace amounts.			PP/WQBEL

a/ See section 1 of the Permit for definition of terms.

b/ WQBEL = Limitation based on water quality-based effluent limit; TBEL = Limitation based on technology based effluent limit; PP = Limitation based on previous permit

c/ Percentage Removal Requirements (TSS and BOD₅ Limitation): In addition to the concentration limits for total suspended solids and BOD₅ indicated above, the arithmetic mean of the concentration for effluent samples collected in a 30-day consecutive period shall not exceed 15 percent of the arithmetic mean of the concentration for influent samples collected at approximately the same times during the same period (i.e., a minimum 85 percent removal). The limits for BOD₅, total suspended solids, and pH are based on National Secondary treatment standards (40 CFR §133.102).

d/ The 30-day average limit for *E. coli* shall be reported as a geometric mean. See section 1 of the Permit for definition of terms.

6.4 Antidegradation

The Rosebud Sioux Tribe does not have an antidegradation policy because they do not have approved water quality standards. There are no antidegradation requirements.

6.5 Anti-Backsliding

Federal regulations at 40 CFR Part 122.44(l)(1) require that when a permit is renewed or reissued, interim effluent 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 were based have materially and substantially changed since the time the Permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR Part 122.62.

This permit renewal complies with anti-backsliding regulatory requirements. All effluent limitations, standards, and conditions in the Permit are either equal to or more stringent than those in the previous permit.

7 MONITORING REQUIREMENTS

7.1 Self-Monitoring Requirements

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, as required in 40 CFR Part 122.41(j), unless another method is required under 40 CFR subchapters N or O.

7.1.1 Total Flow

The previous permit required the Facility to monitor effluent flow on a daily basis using a grab measurement. This frequency and sample type will be retained in the Permit. Daily flow measurements and grab sample type are appropriate because the Facility discharges continuously but has reported variable discharge volumes. The Facility does not currently have the capability to monitor continuously, and more frequent flow measurements (daily) should capture variability in discharge volume.

7.1.2 BOD₅

The previous permit required the Facility to monitor effluent BOD₅ concentrations and BOD₅ percent removal on a monthly frequency using a composite sample type. This monthly frequency and composite sample type will be retained for measuring BOD₅ concentrations and percent removal in the Permit. The monthly monitoring is appropriate to capture the seasonal variability, while the composite sample type will better capture variations in the discharge day.

Note, the Facility will also have to collect influent at the same frequency as required for the effluent to quantify BOD₅ percent removal. Calculating the percent removal is required to verify the efficiency of the Facility as designed. BOD₅ influent monitoring shall occur prior to entering the primary separation tank (or before all return lines).

7.1.3 TSS

The previous permit required the Facility to monitor effluent TSS concentrations and percent removal three times per week using a composite sample type. Following discussions with the Facility, EPA is reducing the monitoring frequency to a monthly frequency in this permit renewal, while retaining the composite sample type. The shift to monthly monitoring was based on the stabilization of TSS concentrations in the effluent. Monthly monitoring with a composite sample type will still capture seasonal variability and the composite will also capture variations in the discharge day.

Note, the Facility will also have to collect influent at the same frequency as required for the effluent to quantify TSS percent removal, and verify the efficiency of the Facility as designed. TSS influent monitoring shall occur prior to entering the primary separation tank (or before all return lines).

7.1.4 pH

The previous permit required the Facility to monitor effluent pH on a monthly frequency using a grab sample. This monthly frequency and grab sample type will be retained in the Permit. A monthly frequency is appropriate to capture any potential variability. Grab samples are appropriate for monitoring parameters, such as pH, that are not amenable to compositing.

Note that pH samples must be analyzed within 15 minutes of collection. For this reason, most facilities use an *in situ* meter, such as a pH meter, to measure it directly in the field.

7.1.5 *E. coli*

The previous permit required the Facility to monitor effluent *E. coli* on a monthly frequency from May 1 to September 30 using a grab sample. A monthly frequency and grab sample will be retained in the Permit. A monthly frequency is appropriate to capture any potential variability. Grab samples are appropriate for monitoring parameters, such as *E. coli*, that are not amenable to compositing. However, the seasonal component of *E. coli* monitoring will change from being required May 1 – September 30 to a year-round limit. EPA Region 8 typically applies *E. coli* limits throughout the year when there is no established Tribal guidance on when primary contact (including cultural uses) may apply. This is generally consistent with other permits in Region 8.

7.1.6 Oil and Grease and Visible Floating Solids and Foam

The previous permit required the Facility to monitor effluent oil and grease on a weekly frequency using a visual inspection, followed by an immediate grab sample if any oil and grease were observed. This weekly frequency and grab sample type will be retained in the Permit. A weekly frequency is appropriate to capture any potential variability that could change based on the effectiveness of the grease trap. Grab samples are appropriate for oil and grease to quickly capture the concentration when a sheen is observed. A visual inspection is part of basic operation and maintenance of a Facility such as this (see section 6.2 of the Permit), and a weekly visual assessment is in line with other mechanical wastewater treatment facilities.

The previous permit required the Facility to monitor effluent for visible floating solids and foam on a weekly frequency using a visual observation. The weekly frequency will be retained in the Permit, and all observations recorded in the log and reported.

7.1.7 Ammonia

The previous permit required the Facility to monitor effluent ammonia on a quarterly frequency using the composite sample type. Effluent ammonia concentrations can be an indicator of a facility's treatment efficiency and operating performance. Due to variable ammonia concentrations, and an increased frequency of elevated ammonia concentrations reported during the last permit cycle (0.06 – 41.7 mg/L; Table 1) the quarterly monitoring frequency and composite sample type will be retained in the Permit. Quarterly sampling will be sufficient to collect enough data to reevaluate ammonia in future permits. Composite

samples will be required to capture variability in concentration throughout the discharge day.

7.1.8 Temperature

Temperature monitoring is being added to the Permit. Monitoring will be required on a quarterly frequency using a grab sample type. Ammonia toxicity is dependent upon ammonia concentrations, pH and temperature in the receiving stream. Since this stream is effluent dominated, measuring the pH and temperature in the effluent will act as a surrogate for the receiving stream. As a result, temperature monitoring is being added to the Permit to better characterize the potential for ammonia toxicity in the receiving stream. Temperature measurements should be collected at Outfall 001 at the same time the ammonia sample is collected. A monthly frequency is appropriate to capture any potential variability. Grab samples are appropriate for monitoring parameters, such as temperature, that are not amenable to compositing.

Note that temperature samples must be analyzed within 15 minutes of collection. For this reason, most facilities use an *in situ* meter, such as a calibrated thermometer, to measure it directly in the field.

7.1.9 Nutrients

The previous permit required the Facility to monitor the effluent for total nitrogen and total phosphorus on a quarterly frequency using the composite sample type. The composite sample type will be retained in the Permit and is appropriate for a facility with continuous, but variable discharge flow. EPA is committed to partnering with Tribes to collect more comprehensive nitrogen and phosphorus data and better define nitrogen and phosphorus levels and seasonal variability at individual facilities. Quarterly sampling will be sufficient to collect enough data to reevaluate nutrients in future permits.

Table 5. Monitoring requirements for Outfall 001

Outfall	Effluent Characteristic	Monitoring Frequency	Sample Type <u>a/</u>	Data Value Reported on DMR <u>b/</u>
001	Flow, gpd <u>c/</u>	Daily	Grab	Daily Max. 30-Day Avg.
001	BOD ₅ , mg/L <u>d/</u>	Monthly	Composite	Daily Max. 30-Day Avg.
001	BOD ₅ , % removal	Monthly	Calculated	30-Day Avg. % removal
001	TSS, mg/L <u>d/</u>	Monthly	Composite	Daily Max. 30-Day Avg.
001	TSS, % removal	Monthly	Calculated	30-Day Avg. % removal

Outfall	Effluent Characteristic	Monitoring Frequency	Sample Type <u>a/</u>	Data Value Reported on DMR <u>b/</u>
001	<i>Escherichia coli</i> (<i>E. coli</i>), number/100 mL	Monthly	Grab	Daily Max. 30-Day Avg.
001	pH, standard units <u>e/</u>	Monthly	Grab	Minimum Maximum
001	Oil and grease, visual	Weekly	Visual	Narrative
001	Oil and grease, mg/L	Immediately if visual sheen detected	Grab	Daily Max.
001	Floating Solids and Foam <u>f/</u>	Weekly	Visual	Narrative
001	Total Ammonia Nitrogen (as N), mg/L	Quarterly	Composite	Daily Max. 30-Day Avg.
001	Total Nitrogen, mg/L	Quarterly	Composite	Daily Max. 30-Day Avg.
001	Total Phosphorus, mg/L	Quarterly	Composite	Daily Max. 30-Day Avg.
001	Temperature, °C <u>g/</u>	Quarterly	Grab	Minimum Maximum
001-I	BOD5, mg/L <u>d/</u>	Monthly	Composite	None (use for % removal calculation)
001-I	TSS, mg/L <u>d/</u>	Monthly	Composite	None (use for % removal calculation)

a/ See section 1 of the Permit for definition of terms.

b/ Refer to the Permit for requirements regarding how to report data on the DMR.

c/ Flow measurements of effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. The average flow rate in gallons per day and the maximum flow rate in gallons per day observed during the reporting period shall be reported.

d/ Samples shall be collected for these characteristics at final discharge location (Outfall 001) and the influent monitoring location (Outfall 001-I) on the same day.

e/ This sample must be analyzed within 15 minutes of collection per 40 CFR Part 136.

f/ A weekly visual observation for floating solids and foam is required, recorded in the log and reported.

g/ Sample must be taken as close in time as feasible with the effluent ammonia sample at Outfall 001.

8 SPECIAL CONDITIONS

N/A

9 REPORTING REQUIREMENTS

Reporting requirements are based on requirements in 40 CFR §§ 122.44, 122.48, and Parts 3 and 127. A discharge monitoring report (DMR) frequency of quarterly was chosen, because the Facility monitors monthly and quarterly.

10 COMPLIANCE RESPONSIBILITIES AND GENERAL REQUIREMENTS

10.1 Inspection Requirements

Unless otherwise modified in writing by EPA, the Permittee shall visually inspect its wastewater treatment facility and collection system and record findings in the log. The inspection shall entail, at a minimum, a “walkthrough” and visual observation of all process treatment units, sampling and flow monitoring equipment, outfalls, and the receiving stream. In addition to the inspection requirements described above, the Permittee shall inspect:

Ultraviolet Disinfection System: the ultraviolet disinfection system must be inspected based on the manufacturer’s recommended frequency. The bulbs/tubes need to remain clear to ensure maximum disinfection of the effluent.

Grease Interceptor Trap: the grease interceptor trap must be visually inspected at a frequency sufficient to ensure grease and other floating solids do not enter the Facility. The Facility is not designed to treat or breakdown grease, which would likely pass through the treatment system could result in an excursion of permit limits.

Lift Station: The lift station must be visually inspected by the Permittee to ensure optimum function of the pump, wet well, controls, etc. The lift station must be able to convey waste from the annex and fuel plaza in a continuous and efficient manner to prevent sanitary sewer overflows and unauthorized discharges.

Inspection frequency is dependent on the equipment being inspected and should be completed as recommended by the equipment manufacturer.

10.2 Operation and Maintenance

40 CFR § 122.41(e) requires permittees to properly operate and maintain at all times, all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. In addition to an operation and maintenance plan, regular facility inspections, an asset management plan (AMP), and consideration of staff and funding resources are important aspects of proper operation and maintenance. Asset management planning provides a framework for setting and operating quality assurance procedures and helps to ensure the permittee has sufficient financial and technical resources to continually maintain a targeted level of service.

Consideration of staff and funding provide the permittee with the necessary resources to operate and maintain a well-functioning facility.

An AMP can be used to forecast relevant needs and costs associated with long-term compliance concerns, particularly in communities that could be impacted by emerging or increased flooding risk, risk of wildfires, or drought risk. While flooding and wildfires can lead to damage to critical infrastructure, droughts could reduce flows in receiving waters resulting in more stringent permit limits in the future. Long-term construction, additional operation and maintenance, and funding plans for upgrading or relocating critical infrastructure may be necessary to mitigate these concerns. Facilities may also consider optimizing their energy efficiency, which can yield substantial economic benefits and help cut down on associated emissions.

The previous permit included sludge depth monitoring and dissolve oxygen monitoring on a weekly frequency to monitor the facility's treatment efficiency and address several excursions of the 30-day and 7-day average TSS limits reported from 2012-2016. Since that time, the TSS concentrations have stabilized and the DMR data indicate the treatment system is operating in a more efficient manner. For this reason, sludge depths and dissolved oxygen monitoring will be discontinued.

Operation and maintenance requirements have been established in sections 6.3.3 and 6.3.4 of the Permit to help ensure compliance with the provisions of 40 CFR 122.41(e).

10.3 Industrial Waste Management

N/A

10.4 Per- and Polyfluoroalkyl Substances (PFAS) Notification and Plan

N/A

11 ENDANGERED SPECIES CONSIDERATIONS

The Endangered Species Act of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, "listed" species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS as critical ("critical habitat"). See 16 U.S.C. § 1536(a)(2), 50 CFR Part 402. When a Federal agency's action "may affect" a protected species, that agency is required to consult with the FWS (formal or informal) (50 CFR § 402.14(a)).

The U.S. Fish and Wildlife Information for Planning and Conservation (IPaC) website (<https://ecos.fws.gov/ipac/>) was accessed on 12/16/2022 to determine federally listed Endangered, Threatened, Proposed and Candidate Species for the area near the Facility. The IPaC Trust Resource Report findings are provided below. The designated area utilized was

identified in the IPaC search and covers the hotel, casino, restaurant, fuel plaza, treatment facility and downstream receiving waters, covering approximately 192 acres (Table 6).

Table 6. IPaC Federally listed Threatened and Endangered Species

Species	Scientific Name	Species Status	Designated Critical Habitat
American Burying Beetle	<i>Nicrophorus americanus</i>	Threatened	“No critical habitat has been designated for this species.”
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	“No critical habitat has been designated for this species.”
Red Knot	<i>Calidris canutus rufa</i>	Threatened	“No critical habitat has been designated for this species.”
Whooping Crane	<i>Grus americana</i>	Endangered	“There is final critical habitat for this species (published in the Federal Register on May 15, 1978). This location is outside the critical habitat.”
Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	Threatened	“No critical habitat has been designated for this species.”

11.1 Biological Evaluation

The proposed action is the renewal of an NPDES discharge permit at a wastewater treatment facility. This renewal does not allow for any increases in discharge volume or pollutant loads, and all effluent limitations are protective of the beneficial uses of the receiving waters. Furthermore, IPaC determined there was no critical habitat in the action area. A brief biological evaluation for each species in Table 6 is provided below.

American Burying Beetle, *Nicrophorus americanus*

This species is a primarily terrestrial species and will have limited contact with wastewater discharges. If this species is present, it may use receiving waters for a short period of time during the year. However, there are no expected significant adverse changes in water quality in the receiving water from discharges that meet permitted limitations. Permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all beneficial uses. Additionally, there is no critical habitat for this species. Based on this, EPA has determined that reissuance of the Permit “may affect, but is not likely to adversely affect” this species.

Monarch Butterfly, *Danaus plexippus*

This species is a primarily terrestrial species and will have limited contact with wastewater discharges. If this species is present, it may use receiving waters for a short period of time during the year. However, there are no expected significant adverse changes in water quality in the receiving water from discharges that meet permitted limitations. Permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant

loadings, and permit limits are protective of all beneficial uses. Additionally, there is no critical habitat for this species. Based on this, EPA has determined that reissuance of the Permit “may affect, but is not likely to adversely affect” this species.

Red Knot, *Calidris canutus rufa*

This species is a terrestrial species and will have limited contact with wastewater discharges. If this species is present, it may use receiving waters for a short period of time during the year. However, there are no expected significant adverse changes in water quality in the receiving water from discharges that meet permitted limitations. Permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all beneficial uses. Additionally, there is no critical habitat for this species. Based on this, EPA has determined that reissuance of the Permit “may affect, but is not likely to adversely affect” this species.

Whooping Crane, *Grus americana*

This species is a terrestrial species and will have limited contact with wastewater discharges. If this species is present, it may use receiving waters for a short period of time during the year. However, there are no expected significant adverse changes in water quality in the receiving water from discharges that meet permitted limitations. Permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all beneficial uses. Additionally, there is no critical habitat in the designated area for this species. Based on this, EPA has determined that reissuance of the Permit “may affect, but is not likely to adversely affect” this species.

Western Prairie Fringed Orchid, *Platanthera praeclara*

These species are primarily terrestrial species and will have limited contact with wastewater discharges. If these species are present in the vicinity of the receiving waters, there are no expected significant adverse changes in water quality in the receiving water from discharges that meet permitted limitations. Permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all beneficial uses. Additionally, there is no critical habitat for this species. Based on this, EPA has determined that reissuance of the Permit will have “no effect” on this species.

Based on the IPaC information, EPA determined the permitting action may affect, but is not likely to adversely affect one or more of the species listed above. A copy of the draft Permit and this Statement of Basis was sent to the FWS on April 26, 2023, requesting concurrence with EPA’s finding that reissuance of this NPDES Permit "may affect, but is not likely to adversely affect" the species listed as threatened or endangered in the action area, or their critical habitat.

12 NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The first

step in this analysis is to consider whether the undertaking has the potential to affect historic properties, if any are present. See 36 CFR 800.3(a)(1). Permit renewals where there is no new construction are generally not the type of action with the potential to cause effects on historic properties. During the public comment period, the Rosebud Sioux's Tribal Historic Preservation Officer (THPO) will be notified as an interested party.

13 401 CERTIFICATION CONDITIONS

At the time of the Permit reissuance, EPA was the Clean Water Act (CWA) Section 401 certifying authority for the Permit, because the Rosebud Sioux Tribe has not received authorization to implement Section 303(c) of the CWA. EPA has determined § 401 conditions are unnecessary, because EPA has determined the Permit protects Tribal water quality requirements.

14 MISCELLANEOUS

The effective date of the Permit and the Permit expiration date will be determined upon issuance of the Permit. The intention is to issue the Permit for a period not to exceed 5 years.

Permit drafted by Dan Guth, U.S. EPA, (303) 312-6121 [(December 2022)]

ADDENDUM

AGENCY CONSULTATIONS

On June 1, 2023, the FWS concurred with EPA's preliminary conclusion that the Permit reissuance is not likely to adversely affect listed species.

On May 17, 2023, the Tribe's Tribal Historic Preservation Office agreed with EPA's preliminary determination that the Permit reissuance will not impact any historic properties.

PUBLIC NOTICE AND RESPONSE TO COMMENTS

The Permit and statement of basis, including the CWA Section 401 certification, were public noticed on EPA's website and in the Todd County Tribune on May 17, 2023. No comments were received. In the absence of comments received during the public notice comment period related to Section 401 certification requirements, the signing of the Permit shall constitute EPA's Section 401 certification.