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Wastewater Treatment and Dispersal Operating Permit

Operating Permit No. _____

Doc Type: Agency Generated

Facility Information

Permittee name (and business name, if applicable): _____ Phone number: _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Property ID number (GPS location): _____

_____ authorizes the Permittee to operate a wastewater treatment and dispersal system at the address named above in accordance with the requirements of this operating permit. The attached Management Plan is hereby incorporated as part of the requirements of this operating permit.

Issuance date: _____ Expiration date: _____

System type: _____ Treatment level: _____

System design flow: _____ Residential/Commercial: _____

System components: _____

_____

Monitoring Requirements

Parameter	Effluent limits	Frequency	Location
Design flow (gpd)			
Average flow (gpd)			
$CBOD_5$ (mg/L)			
TSS (mg/L)			
O&G (mg/L)			
Fecal Coliform bacteria (#/100mL)			
Total Nitrogen, Total Phosphorus (mg/L)			
Operational Field Tests, may include: Temperature, Dissolved Oxygen and pH			
Ponding/Surfacing in soil treatment			

Monitoring Requirements Comment Field

_____

_____

_____

_____

_____

Maintenance Requirements

Maintenance requirements shall be performed as specified in the Management Plan as prepared by the system's Advanced Designer.

System component	Maintenance	Frequency
External grease interceptor		
Septic tank/Trash tank		
Pump tank and controls		
Effluent screen		
Advanced treatment product		
UV light disinfection device		
Soil treatment and dispersal		

Monitoring Protocol

Any sampling and laboratory testing procedures shall be performed in accordance with the proprietary treatment product's protocol, Standard Methods, and at a Minnesota Department of Health approved laboratory. Results shall be submitted to the permitting authority at: Rum River CC – 23306 Cree St NW, St Francis, MN 55070 no later than sixty (60) days prior to when the permit to operate the system expires, and to the proprietary treatment products manufacturer at: (*Fill in this field with the name and address of the treatment product manufacturer*): _____

Contingency Plan

In the event the wastewater treatment system does not meet required performance requirements as contained in this operating permit, the owner shall notify the local unit of government within thirty (30) days of receiving non-compliant information. The owner is responsible to obtain the services of a Minnesota Pollution Control Agency (MPCA)-licensed Service Provider or other qualified practitioner to complete the required corrective measures.

Authorization

This permit is effective on the issuance date identified above. This permit and the authorization to treat and disperse wastewater shall expire in _____ year(s). The Permittee is not authorized to discharge after the above date of expiration. The Permittee shall submit monitoring information on forms as required by Rum River CC no later than sixty (60) days prior to the above date of expiration for operating permit renewal. This permit is not transferable.

The owner is required to obtain the services of a Minnesota Pollution Control Agency (MPCA) licensed and trained: 1) Service Provider to provide ongoing system operation, maintenance, and monitoring and 2) Maintainer to pump the system's sewage tanks and components. The owner is responsible to provide the name of the Service Provider business prior to the issuance of this operating permit. The owner has secured the services of (*Fill in this field with the name of the Service Provider company*): _____ as the Service Provider for this system (signed Service Provider contract attached). The Service Provider is hereby authorized to provide the required monitoring data and routine maintenance service records to both Rum River CC and to the manufacturer of the treatment device, (*Fill in this field with the name of the treatment product manufacturer*): _____

[For systems that generate high strength wastewater, the following items should be added to the operating permit: "If there is a change of use within the facility (i.e., change in menu, increase in food capacity, change in water use fixtures, etc.), the permittee is required to notify the local unit of government and the Service Provider before any changes occurs. Changes to the facility that could potentially impact performance of the wastewater treatment and dispersal system shall not take place until appropriate evaluation has been completed."]

I hereby certify with my signature as the Permittee that I understand the provisions of the wastewater treatment and dispersal system operating permit including maintenance and monitoring requirements. I agree to indemnify and hold Rum River CC harmless from all loss, damages, costs and charges that may be incurred by the use of this system. If I fail to comply with the provisions of this operation permit, I understand that penalties may be issued. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the operating permit.

The Operating Permit is hereby granted to: _____

Permittee (please print): _____

Title: _____ Date: _____

Signature: _____

Permitting Authority (please print): _____

Title: _____ Date: _____

Signature: _____

Instructions for Completing an Operating Permit

The following instructions provide an explanation for local units of government to complete the operating permit template. This is intended to provide guidance to local units of governments (LGU) in developing operating permits for Type IV and Type V systems, including both residential and commercial systems. The template could be modified for holding tanks or any other system. Since the Management Plan is considered part of the operating permit, it needs to be attached to the operating permit. A signed contract, between the owner and Service Provider, should be attached to the operating permit to help ensure the owner has made the necessary arrangements to have the system maintained and monitored.

LGU Name, Department and Address – fill in the name, department and address of local unit of government at the top of the operating permit.

Wastewater Treatment and Dispersal Operating Permit No. – assign an operating permit number to be able to track the system over the years.

Permittee Name, Business Name, Telephone Number, and Address – fill in the name, address and phone number of the owner. If this is a business, fill in name of the business, too.

Property Id. Number (GPS Location) – these are simply identifiers used by local units of government in the event the property address changes over time.

Name of Local Unit of Government – fill in the name of the local unit of government. This authorizes the Permittee to operate the wastewater treatment system at the address named above, according to the operating permit, attached Management Plan and contract with the Service Provider.

Issuance Date – fill in the date the operating permit is issued. The operating permit should not be issued until all required information is submitted.

Expiration Date – fill in the date when this operating permit expires. The first time an operating permit is issued to an owner, it should be issued for one (1) year. This helps ensure the owner actually does the required maintenance and monitoring during the first year. If the owner complies, the operating permit can then be issued for a longer period of time as determined by the local unit of government (typically 3 to 5 years). However, if the owner does not comply the first year, the second operating permit could, again, be issued for a period of one (1) year.

System Type – fill in as Type IV or Type V system. Holding tanks may also be issued operating permits (Type II system).

Treatment Level – specify Treatment Level A, A2, B, B2, C, TN or TP. Treatment Level A = Carbonaceous Biochemical Oxygen Demand, five day ($CBOD_5$) 15 milligrams per liter (mg/L), Total Suspended Solids (TSS) 15 mg/L, Fecal Coliform Bacteria 1000 per 100 milliliter (mL); Treatment Level A2 = $CBOB_5$ 15 mg/L, TSS 15 mg/L; Treatment Level B = $CBOD_5$ 25 mg/L, TSS 30 mg/L, Fecal Coliform Bacteria 10,000 per 100 mL; Treatment Level B2 = $CBOD_5$ 25 mg/L, TSS 30 mg/L; Treatment Level C = $CBOD_5$ 125 mg/L, TSS 60 mg/L, Oil and Grease (O&G) 25 mg/L; Total Nitrogen (TN) = 20 mg/L or less, or Total Phosphorus (TP) = 2 mg/L or less.

System Design Flow – fill in the design flow specified on the construction permit for the system, along with the projected average daily flow for the system. Average daily flow is generally 60 to 70 percent of design flow.

Residential/Commercial – specify if the system is residential or commercial. You may specify additional information, such as classification of dwelling, number of bedrooms; or type of commercial establishment.

System Components – provide a brief description of the system components. An example would be the following: 600 gallon trash tank, 600 gallon Brand X proprietary treatment device, 1 Brand Y Ultra Violet (UV) light disinfection unit, 500-gallon pump tank, pump, floats and controls, and 250-foot shallow trenches using pressure distribution.

Monitoring Requirements (Table)

The monitoring requirements specified in an operating permit are unique to the site and soil conditions of the property (its environmental sensitivity) and system complexity. The monitoring requirements include specific parameters to be monitored, target limits and the frequency and location of monitoring. The monitored parameters, at a minimum, would include: 1) wastewater flow - the most basic parameter to know in understanding system performance, 2) ponding in the soil treatment system and 3) surfacing of the soil treatment system. Monitoring for $CBOD_5$, TSS, fecal coliform bacteria and nitrogen are unique to the site, its receiving environment and complexity of the wastewater system. Field tests for temperature, pH and dissolved oxygen can be performed by the Service Provider to serve as general indicators of system performance.

1. **Flow** – flow to each system needs to be determined as specified in the Management Plan or as determined by the local unit of government. Flow can be determined several ways, using water meters, event counters, and running time clocks. Telemetry can also be used and has the advantage that flow can be determined continually.

   The determination for the frequency of flow measurement is done on a case-by-case basis. At first, daily flow monitoring may be needed to determine average flow and peak flows to a system. After a period of time, weekly or monthly flow determination may be acceptable. Flow determinations once a year generally provide limited information.

2. **$CBOD_5$** – monitoring for $CBOD_5$ is not typically required for the majority of wastewater systems used for single-family homes generating typical domestic strength effluent. However, monitoring for $CBOD_5$ may be needed periodically. For example, there may be a need to audit systems as part of the product registration process in Minnesota or if the Service Provider is trying to troubleshoot a system. For commercial systems, monitoring for $CBOD_5$ is generally necessary to determine $CBOD_5$ removal efficiencies of proprietary treatment devices and/or organic loading rates to the soil's infiltrative surface.

3. **TSS** – monitoring for TSS is not typically required for most residential wastewater systems that generate typical domestic strength effluent. However, turbidity measurements may be taken in the field by Service Providers. Monitoring for TSS may be needed periodically as part of an audit process for the registration of proprietary treatment products in Minnesota. For commercial systems, monitoring for TSS may be necessary.
4. **O&G** – monitoring for Oil and Grease (O&G) is not typically required for most residential wastewater systems; however, it is an important parameter to monitor for facilities that have food preparation and service and for residences that generate high strength wastewater.
5. **Fecal Coliform Bacteria** – monitoring for fecal coliform bacteria should generally be required for systems listed as Treatment Level A and Treatment Level B systems where reduced vertical soil separation is used.
6. **Total Nitrogen and Total Phosphorus** – monitoring for Total Nitrogen (TN) may be needed in areas identified as nitrogen sensitive environments. Monitoring for Total Phosphorus (TP) may be required in phosphorus sensitive lake environments.
7. **Operational Field Tests** – these are tests performed by the Service Provider to help 'monitor' system performance and identify problems (troubleshooting a system). Although field tests are not a strict monitoring requirement, they are appropriate to list in the operating permit if specified in the Management Plan or in the product's Operation and Maintenance Manual. The local unit of government will determine if the permittee is required to report field test results as part of the operating permit.
8. **Ponding/Surfacing in Soil Treatment** – all systems should be monitored periodically as specified in the Management Plan to determine extent and frequency of ponding in soil treatment systems. A check for surfacing is needed.

Maintenance Requirements (Table)

This table lists some of the basic maintenance requirements for each major component of the wastewater system. Since you can't possibly list all the maintenance requirements in this table, it is best to reference the Management Plan. You could also reference the proprietary products Operation and Maintenance Manual.

1. **System Component** – list each system component, including the external grease interceptor, septic tank, trash tank, surge tank, effluent screen, pump tank and controls, proprietary treatment product, disinfection device, and soil treatment and dispersal system.
2. **Maintenance** – briefly identify the maintenance requirements of each major system component. For additional information, you could also reference the proprietary product documents listed on the MPCA website at http://www.pca.state.mn.us/programs/ists/productregistration.html.
3. **Frequency** – briefly identify the frequency of maintenance as per the systems Management Plan and Operation and Maintenance Manual.

Monitoring Protocol – this section of the operating permit states that testing needs to be performed in accordance with approved methods and the results submitted to the: 1) local unit of government and 2) manufacturer within a specified time frame. Fill in the name and address of both entities in the spaces provided.

Contingency Plan – this briefly describes requirements if the system does not function as intended. The owner must notify the local unit of government within thirty (30) days of receiving non-compliant information. The Management Plan may identify some of the corrective actions required or the permittee will need to consult their Service Provider. The owner is responsible to obtain the services of a MPCA-licensed Service Provider or other qualified practitioner to complete the required corrective measures. More detail could be added here by the local unit of government.

Authorization – fill in the length of time of the operating permit; this is typically one to five years. Fill in the name of the local unit of government in the second blank space. Note that this permit is not transferable.

Next, fill in the name of treatment product's manufacture; the manufacturer is required to train practitioners in servicing the registered treatment device(s). Fill in the name of the Service Provider in the next space; the owner is required to identify who the MPCA licensed Service Provider will be (in a contract). This is needed to ensure the owner has made the necessary arrangements to have the system maintained and monitored.

The Service Provider is authorized to provide monitoring data and routine maintenance service records directly to the local unit of government and to the manufacturer of the treatment product. For systems generating high strength wastewater, the following should be added to the operating permit: "If there is a change of use within the facility (i.e., change in menu, increase in food capacity, change in water use fixtures, etc.), the permittee is required to notify the local unit of government and the Service Provider before the change(s) occurs." Changes to the facility that could potentially impact performance of the wastewater treatment and dispersal system shall not take place until appropriate evaluation has been completed.

In the final paragraph, fill in the name of the local unit of government. It contains a general indemnification statement. The permittee is reminded that this permit is not transferable and that a new operating permit would be needed by a new property owner.

The Operating Permits Hereby Granted to – print the name of the owner who signed the operating permit.

Signature of Permittee (and date of signature) – the owner signs and dates the operating permit.

By Order of – signature of the permitting authority, title, and date.