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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Municipal LSTS application  SDS Permit Program  *Doc Type: Permit Application* |

**Instructions on page 4**

The State Disposal System (SDS) Permit Program regulates wastewater discharges to land. This application applies to municipal and privately owned facilities that treat domestic wastewater for disposal using Large Subsurface Treatment Systems (LSTS).

Complete the application by typing or printing in black ink. Attach additional sheets as necessary. For more information, please contact the Minnesota Pollution Control Agency (MPCA) at 651-296-6300 (in Metro area) or 800-657-3864 (outside Metro area).

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| **Permittee name:** |  | **Permit number:** | MN |

Wastewater treatment and disposal

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| 1. | Is this a new facility?  Yes  No | |
|  | If yes, please complete and submit the LSTS Design Guidance Attachments 1-9 and 11 in addition to this application. | |
| 2. | Is this an existing facility that currently does not have a SDS Permit?  Yes  No | |
|  | If yes, please complete and submit the LSTS Design Guidance Attachments 1-9 and 11 in addition to this application. | |
| 3. | Is the facility operator a certified Service Provider?  Yes  No  If no, does the facility meet all of the three criteria below (in which case a service provider is not required)?  Yes  No   * Facility consists of a cluster of systems each designed to treat less than 5,000 gallons per day; * Facility contains no advanced treatment components; and * Permit does not have end-of-pipe limits or effluent monitoring beyond flow, scum and sludge. | |
|  | If no to both, specify which courses have been completed, if any? | Introduction into Onsite Systems |
|  |  | Service Provider |
| 4. | Please complete the following table by listing all **existing** facility components: | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Existing component** | **Quantity** | **Date of  construction/ installation** | **Additional information** |
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| 5. | What is the classification of the facility?  A  B  C  D | |
| 6. | | Are there any plans to make changes to the facility within the next five years?  Yes  No |
|  | | Please complete the following table by listing all of the **proposed** changes to the facility components: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **New or removed** | **Quantity** | **Estimated date of installation/ removal** | **Additional information** |
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| 7. | Design flows of the existing and/or proposed facility: |

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| --- | --- | --- |
|  | **Existing** | **Proposed** (If applicable) |
| Average wet weather design flow (AWW) | mgd | mgd |
| ***If available, please provide:*** |  |  |
| Average annual design flow (AAD) | mgd | mgd |
| Average dry weather design flow (ADW) | mgd | mgd |

|  |  |
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| 8. | Design influent concentration in milligrams per liter (mg/L) and/or the design loading in pounds per day for the following parameters: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Existing** | | **Proposed** (if applicable) | |
| 5-day Biochemical Oxygen Demand (BOD5) | mg/L | lbs/day | mg/L | lbs/day |
| Total Suspended Solids (TSS) | mg/L | lbs/day | mg/L | lbs/day |
| Ammonia Nitrogen | mg/L | lbs/day | mg/L | lbs/day |

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| --- | --- | --- | --- |
| 9. | Does this facility have nitrogen pretreatment?  Yes  No | | |
|  | If yes, does the system use chemical addition?  Yes  No | | |
|  | If yes, indicate what chemical is used: |  | |
| 10. | Does this facility operate year-round?  Yes  No | | |
|  | If no, specify the approximate dates the facility is in use: | |  |
| 11. | Please complete the following table by indicating the number of service connections the facility was designed for and the number of those service connections that are currently connected the facility: | | |

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| --- | --- | --- |
| **Type** | **Designed** | **Connected** |
| Residential house |  |  |
| Mobile home |  |  |
| Restaurant |  |  |
| Business |  |  |
| Campground site |  |  |
|  |  |  |
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| 12. | Provide the total average annual gallons currently discharged to the drainfield: |  | Gallons |
| 13. | How was the total average annual gallons determined? *(Examples: flow meter, pump run time, estimation)* | | |
|  |  | | |
| 14. | Do you expect an increase in total average annual gallons discharged to the drainfield in the next five years? | | |
|  | Yes  No If yes, please describe: | | |
|  |  | | |

Groundwater monitoring wells

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| 15. | Are there any groundwater monitoring wells or piezometers at your facility?  Yes  No |
|  | If yes, please include the following information for each piezometer or groundwater monitoring well. |
|  | 1. Unique well number 2. Legal land description (PLS coordinates) 3. Indicate if well or piezometer is upgradient or downgradient 4. Copy of well log for each well or piezometer 5. Surveyed elevation of inside riser pipe (where groundwater elevations are measured from) in well casing. Also indicate date of last survey and name of the certified land surveyor who conducted the survey |

Pretreatment

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 16. | Is this facility a municipally or publicly owned facility?  Yes  No | | | | | |
|  | If yes, complete Questions 16-22. | | | | | |
|  | If no, Questions 16-22 **do not** need to be completed. | | | | | |
| 17. | Does the facility influent waste stream include wastewater/residual waste from a municipal or industrial water treatment plant?  Yes  No If yes, provide the following: | | | | | |
|  | a. | Name of water treatment facility: |  | | | |
|  | b. | Type of water treatment facility (reverse osmosis, filter, etc.): | | |  | |
|  | c. | Any potential wastes (arsenic, radium, etc.) that may impact the facility: | | | |  |
|  | d. | The flow in gallons per week or gallons per month: | |  | | |
| 18. | Does the facility have, or is it subject to, a formally delegated pretreatment program?  Yes  No | | | | | |
| 19. | Provide a list of all Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs) that discharge to the facility: | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Total average flow (mgd)** | **Flow from process wastewater (mgd)** | **Flow from non-process wastewater (mgd)** | **Principal products or raw materials used** | **Considered a SIU?** | **Is there currently a control mechanism and/or local limits?** | **Subject to Categorical Standards?** |
|  |  |  |  |  | Yes No | Yes No | Yes No |
|  |  |  |  |  | Yes No | Yes No | Yes No |
|  |  |  |  |  | Yes No | Yes No | Yes No |
|  |  |  |  |  | Yes No | Yes No | Yes No |
|  |  |  |  |  | Yes No | Yes No | Yes No |

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| 20. | Has a completed *Pretreatment Notification of a* *Significant Industrial User’s Form* been submitted to the MPCA for all of the above listed SIUs?  Yes  No | |
| 21. | Do you anticipate significant changes in volume or quality of discharge from existing industrial users to the facility? | |
|  | Yes  No If yes, please explain: |
|  |  |
| 22. | Do you anticipate any new industrial users to the facility in the next five years? | |
|  | Yes  No If yes, please explain: |
|  |  |
| 23. | Have any of the industrial users caused or contributed to any problems (e.g., upsets, interference) at the facility in the past three years?  Yes  No  If yes, describe each episode, including the name of the industrial users and the events which caused the problems. | |
|  |  | |
| 24. | Is the facility subject to the Hazardous Waste Management Program under the Resource Conservation and Recovery Act (RCRA), or does it accept any known hazardous waste material?  Yes  No | |
|  | If yes, please attach a copy of your existing RCRA permit per 40 CFR 122.21 regulations, including facility maps showing the location at which hazardous waste enters the treatment facility; copies of any sampling results of hazardous waste taken at your facility, etc. | |

Attachments

**Biosolids Attachment:** Biosolids can be a byproduct of LSTS wastewater treatment. Biosolids land application, incineration, or transfers are regulated by Minn. R. 7041 and 40 CFR 503 via wastewater permits. Septage can be defined as biosolids per the Minn. R. 7041. If your LSTS produces biosolids, you must complete the Biosolids Attachment form. If you an unsure whether your LSTS produces biosolids, you should complete the Biosolids Attachment form and include a note stating that you are unsure of whether the form is needed.

**Review the application and ensure all requested items are submitted with this application.**

**Please make a copy for your records.**

**Refer to the *Transmittal Form* for mailing instructions.**

Instructions

**Question 1 & 2.** The LSTS Design Guidance Attachments can be found on the MPCA Web site at [http://www.pca.state.mn.us/ publications/wq-wwprm8-01.pdf](http://www.pca.state.mn.us/%20publications/wq-wwprm8-01.pdf) or by contacting Beckie Olson at 651-757-2123. The attachments are located at the end of the LSTS Design Guidance document.

**Question 3.** Complete the table with all of the existing facility components. Existing components to include arelift stations, grinder pumps, collection system, septic tanks, drainfield, nitrogen pretreatment, any additional treatment (peat filters, chemical addition). Provide the quantity, date the components were constructed and additional information providing further clarification of the facility components. The additional information must include, if applicable, but is not limited to the type of collection system (gravity or pressure), type of nitrogen pretreatment, type of drainfield (traditional, chambers, drip line, etc.), square footage of drainfield area, drainfield material, etc.

If your facility is comprised of more than one system, duplicate this table for each additional system.

***Example:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Existing component** | **Quantity** | **Date of construction/ installation** | **Additional information** |
| *Septic Tank* | *40* | *2004* | *1,000 gallon septic tank at each house* |
| *Forcemain* | *1* | *2004* | *2” forcemain to treatment system* |
| *Septic Tank* | *1* | *2004* | *6,000 gallon influent tank* |
| *Recirculating Sand Filter* | *2* | *2004* | *50’ by 100’ each* |
| *Recirculation Tank* | *1* | *2004* | *6,000 gallons* |
| *Denitrification Tank* | *1* | *2004* | *6,000 gallons with acetic acid addition and BIOPAC media* |
| *Dosing Tank* | *1* | *2004* | *6,000 gallons* |
| *Drainfield* | *4* | *2004* | *20,000 sq. ft. of trenches* |

**Question 4.** Refer to Minn. R. ch. 9400.0500 for information on determining facility class.

**Question 5.** Complete the table with all the proposed facility components. Refer to the instructions for Question 3.

**Question 6.** Refer to theMPCADesign Flow and Loading Determination Guidelines for a definition of each flow type. The MPCA *Design Flow and Loading Determination Guidelines for Wastewater Treatment Plants* can be found at: <http://www.pca.state.mn.us/publications/wq-wwtp5-20.pdf>.

**Question 10.** A service connection is a connection for each individual house, mobile home, campsite, etc. If the facility services a type of connection not listed, for example, a dump station, community laundry or community bathroom/bathhouse, please indicate it in blank spaces provided in the chart.

**Question 15**. Only municipally owned or publicly owned treatment works need to complete the Pretreatment Section. If the facility is privately owned, serves a housing development or serves a campground the Pretreatment Section does not apply.

**Question 18.** A *Significant Industrial User* (SIU) is defined as any industrial user that discharges an average of 25,000 gallons per day or more of processed wastewater to the wastewater treatment facility, excluding sanitary, noncontact cooling, and boiler blowdown wastewater; process wastewater which makes up at least five percent of the facility’s design BOD loading; or has the potential, in the opinion of the Permittee or MPCA, to adversely impact the Permittee’s treatment works or the quality of the effluent.

A *Categorical Industrial User* (CIU) is defined as a user discharging pollutants which are regulated by pretreatment standards established by the EPA which address various processes and activities being performed within the establishment; may or may not have been assigned a standard industrial classification (SIC) number.