|  |  |
| --- | --- |
| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Comminutor Review Checklist  NPDES/SDS Permit Program  National Pollutant Discharge Elimination System (NPDES)/ State Disposal System (SDS)  Doc Type: Plan/Specification Review Summary |

**Purpose:** This checklist is intended for use by design engineers, to assist Minnesota Pollution Control Agency (MPCA) review engineers in the efficient review of planning and design documents. The information requested is the minimum technical data necessary for MPCA staff to review proposed designs and to determine whether there is reasonable assurance that the treatment system, when constructed, will comply with permit conditions, regulations, and criteria of the MPCA.

**Instructions:** The information in this checklist is based on the ***Recommended Standards for Wastewater Facilities published by the Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (Ten State Standards) 2014 Edition,*** other accepted engineering references, and MPCA recommendations. Specific references, other than Ten State Standards, are listed where appropriate. The checklist is organized according to the numbering sequence found in Ten State Standards to allow for ease in locating the entire content and text of the recommendations.

The checklist is designed so that a “**yes**” answer indicates compliance with Ten State Standards et al.

A “**no**” answer indicates a deviation from Ten State Standards et al. Answering “no” to any question will require justification and possibly supporting information, from wastewater treatment plant operational data, to demonstrate how the intent of the recommendation will be met. Additional information may be requested based on site specific conditions.

A “**N/A**” answer means not applicable because the equipment associated with the question is not included in the design.

Wastewater Treatment Facility information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date (mm/dd/yyyy):** | |  | **MPCA Project No:** |  |
| **Title of project:** |  | | | |

Permittee information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Facility name: | |  | | |
| Contact name: | |  | NPDES/SDS Permit No: | MN |
| Email: |  | |  | |

Design Engineer information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contact name: | |  | Contact phone number: |  |
| Email: |  | |  |  |

**Phase:**  Planning Phase  Design Phase

Influent Characteristics

|  |  |  |
| --- | --- | --- |
|  | **gallons per minute, gpm** | **million gallons per day, mgd** |
| **Average Wet Weather (AWW) flow** |  |  |
| **Peak Hourly (PH) flow** |  |  |

62. Comminutors

*(Only use a “N/A” answer if the equipment associated with the question is not included in the design)*

|  |  |  |
| --- | --- | --- |
| ***62.1 General*** | **Yes** | **No** |
| Are there provisions for access, ventilation, shields and safety in accordance with Paragraphs 61.13, 61.14 and 61.15 of Ten State Standards? |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **62*.2 When Used*** | | | **Yes** | **No** | **N/A** | |
| Will the comminutor be used in lieu of screening devices to protect equipment where stringy substance accumulation on downstream equipment will not be a substantial problem? | | |  |  |  | |
| ***62.3 Design considerations*** | | | | | | |
| **62.31 Location** | | | | | | |
| Is the comminutor located downstream of grit removal equipment and protected by a coarse screening device? | | |  |  |  | |
| If the comminutor is not preceded by grit removal equipment, is it protected by a six-inch-deep gravel trap? | | |  |  |  | |
| **62.32 Size** | | |  |  |  | |
| Is the comminutor capacity adequate to handle design peak hourly flow? | | |  |  |  | |
| Are the openings in the comminutor between 0.25 inches and 0.50 inches? (MOP 8 1998) | | |  |  |  | |
| Number of units: |  |  | | | |
| Capacity, each unit: |  | gallons per minute | | | |
| **62.33 Installation** | | |  |  |  | |
| Is a screen bypass channel provided? | | |  |  |  | |
| Are gates provided in accordance with Paragraphs 61.123 and 61.124 of Ten State Standards? | | |  |  |  | |
| **62.34 Servicing** | | |  |  |  | |
| Are provisions made to facilitate servicing units in place and to remove units from their location for servicing? | | |  |  |  | |
| **62.35 Electrical Controls and Motors** | | |  |  |  | |
| Does the electrical equipment in comminutor chambers, where hazardous gas may accumulate, meet the requirements of the National Electrical Code for Class I, Division I, Group D locations? | | |  |  |  | |
| Are motors protected against accidental submergence? | | |  |  |  | |

|  |
| --- |
| Justification for all questions answered with a “no”: |
|  |

**References**

GLUMRB (2014 Edition) *Recommended Standards for Wastewater Facilities* (Ten State Standards), Health Research, Inc., Health Education Services Division, Albany NY.

WEF (1998) *Design of Municipal Wastewater Treatment Plants, Manual of Practice No. 8*, Water Environment Federation, Alexandria, VA. (MOP 8 1998)