

SEPTAGE REVIEW CHECKLIST

Water/Wastewater/#5.72, August 2001

Water Quality

Wastewater Technical Review and Guidance

FACILITY NAME

DATE _____

CONSULTING ENGINEER

SITE INSPECTION (DATE & INSPECTOR)

PLANNING OR DESIGN PHASE

Septage is a general term for the contents removed from septic tanks, portable vault toilets, privy vaults, holding tanks, grease traps, very small wastewater treatment plants, or semi-public facilities (i.e., schools, motels, wastewater from domestic sources). Nondomestic (industrial) septage is not covered in this checklist. Septage is high in organic, grease and solids concentrations. Substantial quantities of phosphorus, ammonia nitrogen, bacterial growth inhibitors and cleaning materials may be present depending on the source. Characteristics also vary from load to load.

**See Appendix in “Ten States Standards” (1997 edition) for two tables:

Pg. A-5 Physical and Chemical Characteristics of Septage as Found in the Literature, with Suggested Design Values

Pg. A-6 Comparison of Septage and Municipal Wastewater.

EVALUATING A WWTP FOR PROPOSED SEPTAGE DISPOSAL

- To determine if there is flow and/or organic “reserve capacity.”

- Design Flow of WWTP

MGD

- Design Flow of Septage.

MGD

- Design CBOD loading to WWTP.

- Design CBOD/ft² (if ponds).

- Sufficient capacity?

- Any known sensitivity of WWTP processes?

- What staffing requirements are necessary when septage is received? (staff should be present when septage received and unloaded).

- Additional laboratory work addressed in O&M manual?

- Construction of a septage receiving facility necessary?

- Impact on sludge handling, processing and final disposal evaluated?

- Septage information should be added to the DMR.

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EVALUATING SEPTAGE

- Ammonia or phosphorus removal necessary?
- What is volume of bacterial growth inhibitors?
(portable vault toilets and recreational dump station holding tanks use inhibitors).
- What is concentration of bacterial growth inhibitors?

DESIGN: SEPTAGE RECEIVING STATION

- Location of septage receiving station should not interfere with normal plant operations.
- Hard surface for haul truck unloading ramp.
- Ramp sloped to a drain (for cleaning and spillage).
- Ramp drainage must be tributary to WWTP and exclude excessive stormwater.

DESIGN: SEPTAGE RECEIVING TANK

- Receiving tank should be off-line.
- Must have ability to collect a representative sample of any truck load.
- Allows complete draining and cleaning.
- Sloped bottom and sump.
- Adequate mixing should be provided (for testing, uniformity of strength, and chemical addition, if necessary, for treatability and odor control).

DESIGN: SEPTAGE HANDLING AT THE WWTP

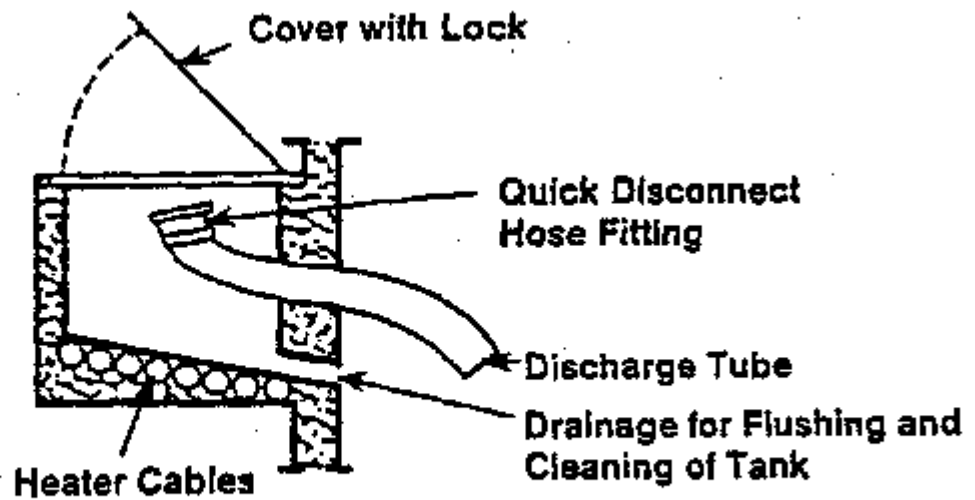
- Flexible hose fitted with easy connect coupling to provide for direct connection from the haul truck outlet to minimize spillage and help control odors.
- Washdown water with ample pressure, hose and spray nozzle for convenient cleaning of the septage receiving station and haul trucks. Chlorinated effluent may be considered for this purpose.
- If potable water is used, see section 56 of Ten States Standards.
- Screening, grit and grease removal as necessary to protect the WWTP.
- Nonclogging pumps for handling septage.
- Pumps must be capable of passing 3" diameter solids.
- Valving and piping for operational flexibility to allow control of the flow rate and point of discharge.
- Point of introduction of septage.
- Feasible alternative points of feed should be evaluated, including sludge processing units.
- Ability to control feed rates.
- Safety features (section 57 of Ten States).
- Area fenced and locked.

*Examples of dumping station attached.



DUMPING STATION INLET ARRANGEMENT (1)

Profile





COMPUTERIZED INTERCEPTOR RECEIVING STATION (1)

