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## What You Need to Know about Waste Disposal

### Handout 2

#### Waste Disposal Regulations

- Portable sanitation is not considered “hazardous waste” under US environmental guidelines. Unless you are carrying something else that is classified as hazardous, your liquid load from portable toilets is classified as “domestic septage.”
- At the highest level, the U.S. Code of Federal Regulations Part 503 (40 CFR) provides guidelines on the treatment and disposal of domestic septage, and the Environmental Protection Agency (EPA) oversees the processes. The EPA is mainly responsible for national limit-setting and guidelines.
  - State environmental agencies carry out most of the licensing and enforcement that affect your business.
  - Counties, watersheds and municipalities can also establish local regulations for septage handling, treatment, and disposal in addition to the federal and state regulations.

#### Septage characteristics

Factors that affect the physical characteristics of septage in portable restrooms are: climate, user habits, tank size, design, and pumping frequency, water supply characteristics, pumping equipment material, and the use of deodorizers. Table 1 lists the characteristics and limits of domestic septage according to the EPA. Portable toilets typically contain variable BOD, solids, inorganics, odor, pathogens, and some chemicals.

**TABLE 1 CHARACTERISTICS OF SEPTAGE CONVENTIONAL PARAMETERS**

Parameter	Concentration	
	Minimum	Maximum
Total solids	1,132	130,475
Total volatile solids	353	71,402
Total suspended solids	310	93,378
Volatile suspended	95	51,500
Biochemical oxygen demand	440	78,600
Chemical oxygen demand	1,500	703,000
Total Kjeldahl nitrogen	66	1,060
Ammonia nitrogen	3	116
Total phosphorus	20	760
Alkalinity	522	4,190
Grease	208	23,368
pH	1.5	12.6
Total coliform	10 <sup>7</sup> /100 mL	10 <sup>9</sup> /100 mL
Fecal coliform	10 <sup>6</sup> /100 mL	10 <sup>8</sup> /100 mL

Note: The measurements above are in mg/L unless otherwise indicated.

Source: U.S. EPA, 1994.

## Treatment

Domestic septage is highly variable and organic, with significant levels of grease, grit, hair, and debris that can be problematic for treatment plants. Septage is also a host for many disease-causing viruses, bacteria, and parasites. As a result, septage requires special handling and treatment and is highly regulated. You will generally need both a license (for the technician and/or the business) as well as a permit to dispose at a given location.

- Treatment plants provide regional solutions to septage management. Portable restroom waste treated at a wastewater treatment facility has the potential to upset processes if the septage addition is not properly controlled, so plant personnel tend to be vigilant about the constituents in the waste they accept. This is particularly true if the plant lacks capacity or is discharging back into protected waterways.
- Land application is an option if allowed by your state or local regulations and it is practical for your company to dispose in this manner. Septage can be applied to the land as a fertilizer and soil conditioner, with application rates depending on the slope, soil type, depth of application, drainage class, and hydraulic loading. Septage must not be applied before or during rainfall or on frozen ground. Thus, an interim storage facility is often needed. Some states require septage to be disinfected before application.

## Disposing of Your Portable Restroom Waste

Disposing of waste is one of the most important aspects of a portable sanitation business. To do so while minimizing the risk of dangerous spills or legal repercussions from improper dumping:

- Make sure you have the required licenses and/or permits for disposing of waste and SDS forms for everything you carry on your truck.
- Know your disposal site's hours of operation, spill procedures, safety regulations and required PPE.
- Do not take anybody's word on what is allowed – get it in writing before you dispose anywhere!
- Don't take liberties (i.e., decide to "ask for forgiveness rather than permission") because you are in a hurry.
- Keep meticulous records—load manifests and vehicle documents should be saved/filed by the company when the day is over. Make sure you have your documents as a driver in and those of your vehicle handy.
- Remember: "the boss made me do it" is not a defense.

