

GUIDELINES FOR GREASE TRAP WASTE



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I. PURPOSE

The purpose of these guidelines is to provide for proper handling, treatment and disposal of grease trap waste.

II. LEGISLATION

- (a) Subsections 8(2)(b), (d), and (e) of the *Environment Act*, S.N.S. 1994-95, c.1, read as follows:

8(2) The Minister, for the purposes of the administration and enforcement of this Act, and after engaging in such public review as the Minister considers appropriate, shall

- (b) establish and administer policies, programs, standards, guidelines, objectives, codes of practice, directives and approval processes pertaining to the protection and stewardship of the environment;
 - (d) develop policies and plans for the management of wastes;
 - (e) control the handling of substances that may have an adverse effect;
- (b) Section 67(2) of the *Environment Act* reads as follows:
- 67(2) No person shall release or permit the release into the environment of a substance in an amount, concentration or level or at a rate of release that causes or may cause an adverse effect, unless authorized by an approval or the regulations.

III. CLARIFICATION OF SOLID WASTE-RESOURCE MANAGEMENT REGULATIONS

- (a) Section 30(2) of these regulations bans certain designated materials from disposal as municipal solid waste. One of the designated materials is compostable organic material.
- (b) Grease trap waste is primarily organic material, which, if collected separately as pure components would be considered to be compostable organic material and would be subject to the ban described in subsection (a). However, when this material is mixed together and contaminated with chemical or bacterial agents, its suitability for normal treatment may be compromised and, if added to ordinary compostable organic material, may adversely affect the whole composting operation.
- (c) Due to the nature of this material, grease trap waste is exempted from the ban on disposal as municipal solid waste and may be landfilled.

IV. EXEMPTION

- (a) These Guidelines apply to commercial and other large scale producers of grease trap waste.
- (b) Part VI of these Guidelines does not apply to grease trap waste produced in a residential dwelling.

V. BACKGROUND

- (a) Grease traps are devices placed in floor drains servicing food preparation areas. The devices collect suspended organic and inorganic particles, congealed fats and oils from washwater and concentrate this material in a single location where it can be treated or removed. This operation prevents the materials from travelling further down the drain where it may form sticky deposits that will restrict or obstruct the free flow of the water. As well, organic material that remains with the water will place a significant additional burden on waste water treatment systems used prior to final discharge to the environment.
- (b) The waste collected in these grease traps has been in close contact with detergents, cleaning agents, sanitizers, drain cleaners and other chemicals used to clean and disinfect food preparation areas. As most of these chemicals are water-soluble, they will remain in the wash water, however, traces may remain in the organic matter at detectable levels.
- (c) Analytical results may be highly variable due to differences in grease loading, water flow volumes and rates, chemical type and addition rates and other factors. This makes it impossible to typify grease trap waste

and means each location must be separately characterized.

VI. TREATMENT OPTIONS

1. Preferred Option

(a) In-Situ Treatment

The best option is in-situ treatment of the grease trap waste. This involves the addition of chemical and/or biological agents directly to the waste, occasionally with pH adjustments to assist the treatment process. The additive must quickly break down the organic materials into simple components which can be treated by the standard sanitary sewage system. Actual treatment must not be confused with degreasers or dispersants which simply break up the grease trap waste and allow it to recollect further down the sewer.

When evaluating the efficiency of additives, care must be taken to obtain samples of the waste before and after the addition as well as downstream samples of the water. A clean grease trap does not necessarily mean that the treatment is working; just that the problem may have moved to a less accessible location.

2. Alternative Options - Less Preferred

(a) Disposal at Municipal Sewage Treatment Facility

Disposal of grease trap waste at a municipally owned and operated sewage treatment facility should be minimized unless the facility has a treatment stream specifically designed to treat this type of waste. Otherwise, grease and oils from these wastes tend to coagulate and adhere to piping, machinery and vessel surfaces in the facility, preventing this waste from being treated and even restricting the ability to treat normal wastes. Handling of this problem requires specialized physical removal or expensive chemical dispersants. Municipal sewage treatment facilities can accept this material with the prior consent of the facility owner or operator if this does not contravene any stipulations of the facility's approval or an applicable municipal bylaw. It is the responsibility of the generator of the grease trap waste or their duly authorized agent to obtain this prior consent.

(b) Landfilling

Disposal of grease trap waste at landfills should be minimized. Since the material is primarily organic, it will quickly attract rodents, birds and other pests if not promptly and adequately buried. When buried, it will decompose very slowly but over time it will generate significant quantities of methane, which must be properly handled.

Landfills can accept this grease trap waste with the prior consent of the landfill owner or operator if this does not contravene any stipulations of the landfill's approval or an applicable municipal bylaw. It is the responsibility of the generator of the grease trap waste or their duly authorized agent to obtain this prior consent.

3. Not Recommended

(a) Disposal at On-Site Sewage Treatment

Disposal of grease trap waste in an on-site sewage system such as a septic system should be avoided. The additional organic loading can put a significant stress on the bacteria which perform the active treatment in these systems. Faced with excessive loading, the bacteria may be unable to perform properly or even die. If the bacteria can cope but the feed is sporadic, it may lead to boom-and-bust cycles in bacterial populations which will dramatically alter the efficiency of the treatment system. Another potential problem is the chemical residues present in the grease trap waste. Since many of these chemicals are used as sanitizers, they will actively kill the beneficial bacteria needed to operate a septic system.

The net result of adding of grease trap waste to an on-site sewage system is likely a reduction in that system's ability to deal with the waste for which it was designed, liquid sanitary sewage. This leaves the site owner or operator with another larger problem.

(b) Rendering

Rendering companies process natural organic waste products such as meat by-products, waste fats and greases into animal feeds and fertilizers. Often, food preparation facilities have on-site storage containers for used cooking greases and receive regular removal service from a rendering company. Waste grease from grease traps at these facilities will not usually be accepted by rendering companies without pretreatment to remove traces of chemical agents, dewatering and analysis at an approved laboratory. This pretreatment is not normally feasible. If this grease trap waste is mixed with grease to be recycled it may result in contamination of all material and significant costs to the generator.

DATED at Halifax, Nova Scotia, this 9th day of October, 1997.

original signed by:
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