

**CEDAR KEY WATER & SEWER DISTRICT
MEMORANDUM**

TO: Board Members, Cedar Key Water & Sewer District
FROM: Jack Hotaling, General Manager
DATE: August 1, 2007
RE: Fog Problem Update and Recommendations

Dear Commissioners:

During the last few months James and I have had several meetings with the FOG producers, have inspected their facilities, have talked with other utilities, and have met with the Florida Rural Water Association (FRWA). We have also briefed our commissioners at several Board Meetings. In summary, nearly 75% of the FOG producer grease traps had violations. Some had no grease traps, some grease traps were broken, some were rusted out, some were too small, and some were improperly located. No vented flow control devices were observed. Also, no FOG producer in Cedar Key has a Grease Interceptor. These devices are similar to a grease trap, but much larger and placed outdoors. Nearly all Counties and Cities in Florida require Interceptors. Grease Interceptor specifications are outlined in Section 1003.5 of the Florida Building Code-Plumbing Section, but do not specify when to be installed.

On July 9, 2007, we met with Troy Hamburger and Bob McVay, P.E. of the FRWA. Bob had previously worked with Gainesville Regional Utilities on their FOG problems and is considered the FRWA's in house expert on this subject. We reviewed our FOG problems and the various practices of our producers with Troy and Bob. At the conclusion of our meeting, we all agreed to the following course of action in working toward a final solution to our community FOG problem:

1. Installation of Proper Grease Traps

We propose that any restaurant or place doing business with the public where food is deep fried, pan fried or grilled, install at the proper location, an adequately sized grease trap. The size of the grease trap shall be determined by Table 1003.3.4.1 of the Florida Building Code-Plumbing Section, except that the grease trap shall be the next larger size from that determined by Table 1003.3.4.1.

For any restaurant or place doing business with the public where food is not deep fried, pan fried or grilled, the size of the grease trap shall be determined by Table 1003.3.4.1 of the Florida Building Code-Plumbing Section.

For the purpose of calculating the Flow-Through Rating as used in Table 1003.3.4.1, Utilize Standard PDI-G 101 published by The Plumbing And Drainage Institute (PDI). Combine the volume of the wash, rinse, disinfection and mop sinks connected to the grease trap (volume in gallons), multiply this volume by 0.75, and divide the product by 1 minute. The result will be the Flow-Through Rating.

All wash, rinse, disinfection and mop sinks shall be connected to the grease trap. Automatic dishwashers shall not be connected to the grease trap.

2. Grease Trap Specifications

Grease traps shall be constructed of high density polyethylene and shall include a flow control device with vented air intake. Flow control device shall be sized for the Flow-Through Rating determined in the above paragraphs. Grease traps shall be PDI-G101 Certified, and manufactured by Ashland PolyTrap, 4800 Series, phone (800-476-7930), or District approved equal.

2. Grease Trap Cleaning

Grease traps shall be cleaned on a regular schedule, normally weekly. More or less frequent cleaning may be justified based upon the results of pre wash dry wiping and seasonal customer variations. All grease and solids removed shall be placed in large plastic lined watertight containers for removal by trash pickup or a renderer. Each cleaning operation shall be entered on a log sheet or in a log book and kept available for inspection by the Water and Sewer District. Each entrance shall include the date, time, persons name and amount of grease and solids removed. Cleaning shall follow the following PDI recommendations:

- Remove cover.
- Remove grease (FOG) from top of separation chamber.
- Remove any solids from bottom of chamber.
- Inspect grease trap and clean if necessary.
- Make certain all passages including air relief are clear of obstructions.
- Check integrity of baffles and make sure they are in place.
- Check cover gasket for any damage. Replace if necessary.
- Replace cover.
- Tighten cover hold down bolts, screws or latches.

3. Pre Wash Dry Wipe

All pots, pans, and dishware shall be dry wiped with paper towels prior to being placed into the wash sink or dishwasher pre-rinse station. The purpose of this operation is to remove most grease from the utensils prior to washing. Each kitchen shall be provided with containers lined with plastic trash bags for disposal of the paper towels at each site.

4. Miscellaneous

The use of enzymes, emulsifiers or other chemicals designed to keep grease in suspension is prohibited, as they will damage the wastewater treatment process.

Signs are to be placed at the locations listed below to encourage all kitchen employees to work together in preventing fats, oils and grease from entering the Sanitary Sewer System:

<u>Location</u>	<u>Wording</u>
All Sinks	No Grease
All Sinks	Use Water Temperatures less than 140°F
Dry Wipe Sites	Dry Wipe Pots, Pans & Dishware prior to dishwashing
Grease Trap	Clean Weekly

5. Condos and Time Shares

It is well known that sewer lines have clogged from grease at more than one facility over the last several years. It is also well known that guests occasionally have fish fries at these facilities. Our recommendations for Condos and Time Share units are as follows:

- Community Grease Containers: Each Condominium and Time Share facility shall provide a large capacity watertight plastic container for used fats, oils, or grease from large fryers. Signs shall be posted in each unit notifying the occupant of the location of the Community Grease Container.
- Individual Unit Grease Containers: Each individual unit shall have a small jar, 12 to 16 ounce capacity, with lid labeled "For used fats, oils and grease". Jars shall be kept in each unit's refrigerator. The Condo or Time Share management staff shall have the contents properly disposed of after each unit's use.
- Signs: A sign shall be posted at each kitchen sink stating "Please help protect our environment by not pouring any used fats, oils or grease down the drains or into the toilets". Please use the Community Grease Container located at _____ for the disposal of any used grease or cooking oils from fryers, and the small jars in the units refrigerator for used fats, oils or grease from normal food preparation and kitchen wastes.

A lot of discussion was held about the possibility of constructing a community Grease Interceptor along Dock Street near the Marina. Due to the close proximity to the Boat Basin and Gulf of Mexico, this was rejected – at least for now. We feel that the proper installation and maintenance of Grease Traps, and introduction of a pre-wash dry wipe, as demonstrated by the State of Oregon, will solve our FOG problem. If it doesn't, Grease Interceptors can be required in the future, at considerable expense to each Restaurant.

If acceptable to the Commission, These recommendations should be incorporated into our "Laws of the Cedar Key Water & Sewer District" as a Resolution.

Jack Hotaling