

## **TROUBLESHOOTING GUIDE**

### **INDIVIDUAL MECHANICAL WASTEWATER TREATMENT PLANTS**

#### **I. LOOK AT THE WATER**

A. Water in the aeration chamber (bubble zone) should be the color of chocolate milk. Blue or gray/blue water indicates heavy use of detergents and/or chemicals.

B. Water in the clarifier (quiet zone) should be clear. Dip water from the clarifier with a clear glass container. You cannot tell if the water is clear by looking in the tank.

1. If water appears sudsy/foamy, there may be too much detergent in the system.

C. There should be no oil, grease or other objects in the system. If there is grease, it will look like white balls floating in the system.

D. There should not be a sludge blanket in the aeration or clarifier chambers. If there is a sludge blanket present, the following could be the cause:

1. Air is not pumping into the chamber properly. Check to see if the air is bubbling evenly and forcefully.

2. Check to see if the tank is level.

3. Check to see if the aerator/blower is working properly and if a timer is used, make sure it is working properly.

4. Check to see if the air line is cracked or broken on the outside of the tank as well as the inside.

5. The system may be overloaded with harsh chemicals or cleaning products.

6. There could be an excess buildup of food particles from an improperly working garbage disposal or the system was not sized to be used with a garbage disposal unit.

7. The system may have excessive amounts of hair in it.

8. The system may be too small for the design flow going into it (hydraulic overload), where too much water is going through it. Washing too many loads of clothes in one day could cause a hydraulic overload.

9. Raw sewage may be entering the clarifier because of loose or improperly installed seals where the piping goes through the clarifier wall. Also, the holes for the piping could be too large. No water should be allowed to cross between the aeration chamber and the clarifier chamber through the clarifier wall.

II. A. WATER SHOULD NOT HAVE A FOUL ODOR. ODORS CAN BE CAUSED BY THE FOLLOWING:

1. Not enough air getting into the system.
2. Chemicals or detergents are killing healthy bacteria.
3. There is a buildup of sludge in the aeration chamber or in the clarifier chamber.

III. A. GENERAL COMMENTS AND RECOMMENDATIONS

1. All tanks should be level when installed. In areas where ground settling occurs, sand should be used in the bottom of the hole before installing the tank.
2. Installers should remove the top of the tank at installation and fill it with water to check that the air bubbles are evenly distributing through the water. This will avoid call backs and problems later.