MOUND (WISCONSIN) ON-SITE SEPTIC SYSTEM

GENERAL

Wastewater exiting the residence is directed into the inlet compartment of the septic/dosing tank for primary treatment and clarification of solids. Effluent leaving the septic tank enters the pump tank, or dosing chamber, which contains a screened pump vault, pump, and level control float switches. Effluent is pumped from the dosing chamber to a distribution system located within the mound, where secondary treatment occurs. After passing through the filter media which comprises the mound body, the treated effluent percolates into the soil beneath the mound and dissipates.

Dosing System

To insure uniform distribution of effluent to the mound distribution bed, an effluent pump (or siphon) is employed to transfer effluent to the distribution system within the mound. The pump is mounted in a screened vault suspended in the pump tank, and discharge of effluent is carried out via schedule 40 PVC pipe to the disposal field. The dosing assembly is fitted with an integral non-resettable dose counter, which allows for the calculation of the column of effluent pumped to the disposal field. A high level alarm has been installed into the pump chamber, with the alarm panel attached to the outside of the house or in the garage. This alarm will sound if the effluent in the tank reaches elevated levels and may indicate that the pump is not functioning properly.

The tank's access manholes have been fitted with water-tight, gas-tight risers and lids which extend above finished grade to allow access for periodic maintenance.

Mound Body

The body of the mound is comprised of a specific sand fill and an effluent distribution system. The sand portion of the mound body is placed upon a prepared ground surface and is approximately 24" in depth. A distribution system, construction of schedule 40 PVC, has been placed into a pea gravel distribution layer which is located directly on the sand fill. Soil cover is placed over the whole mound body to a depth of approximately 12"; additional soil is placed along the edges of the mound, particularly the down-slope edge, to facilitate adequate disposal of effluent.

Inspection Ports

Inspection ports have been installed into the mound to allow for observation of water levels. One inspection port is located in the mound body and extends to the surface of the sand fill. Another port has been located within the mound and extends to the original ground surface. Both inspection ports allow for the observation of water levels within the mound. Other ports

are located down-slope of the mound body and may allow for the measurement of seasonal ground water if any exists at the site.

Septic Tank

The septic tank should be inspected by the homeowner or a professional septic tank pumping contractor approximately once per year for sludge accumulation and should be pumped as necessary to prevent sludge from entering the disposal trenches. The tank should be pumped when the sludge accumulates to within 12”-18” of the bottom of the inlet structure (TEE). The septic tank will require less frequent pumping if the amount of solid material introduced into the septic tank is minimized.

Solid materials such as food scraps and vegetable trimmings should be disposed in the garbage or a compost pile. Grease should not be poured down the drain, but rather collected and disposed in the garbage. Paper products such as disposable diapers, Kleenex, sanitary napkins and paper towels are also harmful and should be disposed in the garbage. Garbage disposal units are strongly discouraged.

For more information concerning septic tanks and pumping procedures, contact the designer or a qualified septic tank pumping contractor. Failure to pump the tank when necessary may result in clogging and/or premature failure of the disposal trenches.

The dosing chamber has been fitted with a screened pump vault which requires periodic rinsing to function properly. It is recommended that, at a minimum, the screened siphon vault be removed (simply lift it out of its protective enclosure), rinsed clean and replaced every time the tank is inspected for sludge accumulation.

Dosing System

The distribution laterals, located within the mound, should be flushed once every two years to remove accumulated debris. This task may be accomplished simply by removing the caps from one of the risers, located at the end of the mound bed, and cycling the pump for a short period of time. This procedure will allow any debris to flow out of the end of the lateral. By removing each of the riser caps in turn, all of the laterals can be cleaned. The effluent being purged from the system should be collected in an appropriate manner and deposited into the primary side of the septic tank.

Mechanical Components

The septic system includes a variety of mechanical and electrical components such as a pump or siphon, valves and float switches. These components should be inspected on a periodic basis by the homeowner to confirm their continued appropriate operation. Should a system component be found to be operating in a detrimental fashion, the designer or an appropriately licensed contractor should be notified immediately.

Inspection Pipe Observations

The system's inspection pipes (located within the body of the mound) should be inspected at least twice per year by the homeowner, once during February or March and once during August or September. During each inspection the date and depth to water should be noted.

Signed of septic system failure include discharge of sewage to the ground surface and saturated horizons within the mound during periods of dry weather. If the system is clearly failing, the designer and the location environmental health department should be notified immediately.

Water levels in the inspection pipes which are very near the ground surface may indicate potential problems, but do not alone constitute failure. In such cases, the system should be monitored more frequently for clear signs of failure, perhaps once per week, until a clear pattern is developed.

Site Improvement Restrictions

The following are some common site improvements which may have a potentially negative impact on the proper operation of the septic system (tank and disposal field):

- ★ Any grading within the area containing the septic system, or the area down-slope of the mound
- ★ Operating or parking vehicles and/or heavy equipment on any portion of the septic system
- ★ Livestock (cattle, horses, swine, llamas, etc.) on the disposal field or the area immediately down-slope from the mound
- ★ Diversion of surface run-off (including house downspouts) into the mound area
- ★ Construction of any structures (including above-ground pools) or storage facilities on the disposal area
- ★ Paving with concrete or asphalt