



Minnesota
Pollution
Control
Agency

Swimming Pool and Hot Tub Water Discharges Best Management Practices

Water Quality/Wastewater NPDES/SDS Permits #2.03 • October 2008

Swimming pools

- Avoid discharging swimming pools and hot tub water to surface water.
- Swimming pool and hot tub water may be discharged to soil surface.
- Chlorination must be stopped three days prior to discharge.
- Discharge should be controlled to prevent nuisance conditions.
- Sewering is another discharge possibility.
- Never discharge to an individual sewage treatment system.

Swimming pools are usually designed to operate on a system that involves the continuous treatment of the pool water. In most instances make up water is added occasionally to replace water lost through evaporation, etc. Discharges that occur from swimming pool filtration systems should be sewered in municipal settings. In rural areas where municipal treatment is unavailable, pool filtration system backwash water could be discharged to the ground surface where solids could be filtered during seepage. The discharge shall be done at a rate that does not allow for discharge via overland flow to surface waters. Unpermitted discharges to surface water are prohibited. Rural pools equipped with diatomaceous earth (DE) filters should have a system designed and constructed for settling out the waste DE so that it can be removed as needed and properly disposed of (i.e. land filled).

The complete contents of swimming pools are seldom discharged. Outdoor swimming pools are usually discharged only at the summers' end. The quality of swimming pool water is typically good with few concerns for discharging the water. One concern that must be addressed is the presence of chlorine in the water.

Chlorination must be stopped several days in advance of discharging pools.

Allowing the water to age without chlorine addition enables the chlorine to dissipate. Testing the chlorine content with the test kit (standard pool equipment) will give you the chlorine content of the water. In most instances, three to four days will be

sufficient to eliminate chlorine from the water.

It is recommended that swimming pool water, **free of chlorine**, be discharged to the ground surface (i.e. lawn). The discharge should be directed onto a vegetated surface to encourage infiltration. The discharge should not flow onto any other persons' property or create nuisance conditions. If the discharge flow is to occur across bare soil areas, care should be taken to prevent soil erosion. This can be done in several ways. The flow rate can be reduced to prevent erosion (use a small diameter hose), additional piping or hose can be placed over the erosive area to prevent soil/water contact, and/or sod can be laid in the bare area.

All measures shall be taken to discharge to the ground. If it is not possible to discharge swimming pool water to the ground surface, the following alternatives should be assessed, case by case, to determine the best alternative and in consultation with the Minnesota Pollution Control Agency (MPCA); storm sewer, sanitary sewer, ditch, lake or wetland. In no case should you discharge chlorinated water to any surface water (storm sewer, ditch, lake, wetland, etc.). In addition, swimming pools should not be discharged into individual sewage treatment systems. The large volume of water can reduce treatment efficiency and can cause other significant problems (i.e. flush solids into the drain field, create a surface outbreak of sewage, etc.).

Hot tubs

Hot tubs are also in the need of occasional discharge. The smaller volumes involved make the discharge of these systems less of a problem. **The chlorine level in the tub must be minimized prior to discharge.** These systems are often plumbed to the homeowner's individual sewage treatment system or the municipal sewer system. This is not a problem for municipal systems (unless severely undersized); however, you must follow local rules regarding these discharges. This can be for individual sewage treatment systems with tight or highly impermeable soils or in instances where the septic system is undersized or poorly maintained. In these cases, it may be wise to discharge to the soil surface and land apply the water away from the onsite system and allow the water to seep into the soil.

Where do I find more information?

To find out more about these topics related to mercury monitoring, please call the MPCA at 651-296-6300 or toll free at 800-657-3864 or TTY 651-282-5332.