Is Your Chemical Storage Area Up to Par for the '98 Season?

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Over the years there has been an increase of allocated governmental funding to develop and enforce environmental rules and regulations. Because golf courses handle many chemicals and substances having hazardous properties, including those that are toxic, flammable, reactive and corrosive, they are one of these regulated industries.

The owner or operator of the facility is responsible for complying with all applicable requirements of federal, state and local regulations. Often, state and local governments develop regulations that are more stringent than federal requirements. These diverse and occasionally overlapping regulations often result in the golf course owners/operators finding themselves overwhelmed and confused on where to begin.

The golf course maintenance area is where contamination of soil, surface water and groundwater is most likely to occur. Day-to-day maintenance operations include activities such as pesticide mixing and loading and equipment maintenance. The maintenance area stores a wide range of hazardous materials such as pesticides, fertilizers, fuel and solvents. Contamination can occur when hazardous materials are spilled, containers leak and rinsewater from containers and equipment cleaning is not properly disposed. The best way to avoid contamination is to implement good management practices.

One of the most common environmental violations for a golf course maintenance area is the improper storage and management of pesticides, fertilizers, solvents and degreasers. In order to minimize the liability and expense typically associated with these areas the following items should be addressed:

**Best Management Practices for Pesticide Storage Areas**
- Lockable concrete or metal building;
- Located 50 feet from other structures;
- Shelving should be metal or plastic;
- Flooring constructed of an impermeable material (concrete or steel), sealed with a chemical resistant paint, a continuous sill and sloped toward a sump area;
- Automatic exhaust fans;
- Emergency shower/eyewash station and personal protective equipment immediately outside of the storage area;
- Explosion proof lighting;
- Flammable pesticides stored apart from non-flammable pesticides, and
- Warning signs on building and fence.

**Best Management Practices for Solvents and Degreaser Storage Areas**
- Flammable and toxic hazard employee training;
- Kept away from ignition sources;
- Adequate ventilation;
- Bermed, impermeable floors;
- Emergency equipment easily accessible;
- Kept away from pesticides and fertilizers;
- Should be used over a collection basin;
- Collected material recycled or properly disposed;
- Drums labeled with content and collection date, and
- Solvents prevented from draining into pavement or soil.

**Best Management Practices for Fertilizer Storage Areas**
- Stored separately from solvents, fuels and pesticides;
- Secondary containment;
- Kept away from water sources;
- Spills cleaned up immediately, and
- Excess or spilled material should be applied.

**Best Management Practices for Used Oil, Antifreeze, Lead Acid Batteries**
- Recycle;
- Or dispose of as hazardous waste.

Proper management of hazardous chemicals is an important part of responsible pesticide and chemical use. Improper management practices can lead to serious legal liabilities, regulatory penalties and poor public image. By addressing these issues before your season gets into full swing, you will limit the potential environmental and financial liabilities that can land your course in the bunker!