



Preventing Landfill Compactor Fires

Compactors are specialized machines used continuously for long periods of time to churn through tons of solid waste at landfills. The machines catch fire frequently, so Risk Pool members should emphasize training in all aspects of their operation. In accordance with the operating manual, employees should be trained from pre-start inspection to proper shut down. Every landfill should also have a formal, documented maintenance program for compactors. Below are some important areas to consider in a program.

Preventing Fires:

- Compactors operate for long periods of time, use flammable liquids, and generate heat. Any machine has a risk of fire, perhaps due to an oil or fuel leak, electrical short, failure to clean, or hot trash.
- Operators and maintenance personnel are responsible for routine inspection and cleaning regularly (all debris and trash should be regularly removed)
- Inspect areas where fires are most likely to start – engine blocks, electrical systems, turbochargers, exhaust manifolds, and brake systems, and clean areas where flammable materials – such as fuel, oil, grease, hydraulic fluid, and debris – collect.
- Oil, hydraulic fluid, and gas lines should not be in contact with ignition points like the engine block, exhaust manifolds, and turbochargers. Leaks should be repaired to stop them from igniting.
- If a machine has a fire suppression system, that system – in addition to the machine components themselves – must also be regularly inspected and maintained.



Engine:

- Debris that quietly accumulates inside the machine, perhaps in the engine compartment, can cause a fire. The engine is vulnerable to trash buildup, which necessitates scheduled cleaning after a cool-down at the end of the work shift.

Cooling System:

- Because of the debris in the air around the active portion of a landfill site, the equipment's radiator and air intakes can get clogged, which can cause overheating if the cooling system is not properly cleaned and maintained.
- With some compactors, the radiator may need to be cleaned every day. Because the cooling system is such a vital part of the machine, cleaning is imperative.

Wheels:

- Wheels do the job of cutting and shredding refuse into smaller pieces. Debris buildup around the wheels can form a clog between the wheel and the body of the machine. If the buildup isn't removed, the inside of the wheel can wear down, which means debris must be removed on a regular basis.

Additional Resources:

[TMLIRP Multimedia Library:](#)

- Equipment Safety – Compactor, Disk 75
- Equipment Safety - Machine Fires (Landfill Safety Training), Disk 470
- Preventing Landfill Fires, Disk 60
- Equipment Safety - General Issues, Disk 56
- Machine Maintenance, Disk 81