



## SANITATION – PREVENTING TRUCK FIRES BEST PRACTICES

About half of the trash truck fires are electrical. The vehicles that seem to be most susceptible to electrical fires are front loaders, rear loaders, and side loaders. Using battery-disconnect switches, as well as the routine inspection and proper maintenance of electrical cables, are key to reducing the likelihood of electrical vehicle fires.

Hot loads accounted for 25% of the waste vehicle fires. Hot loads present the greatest problem when a waste truck or transfer trailer is left loaded overnight. Making sure each truck or trailer is empty at the end of the day and training drivers to spot and deal with hot loads can prevent equipment loss due to a hot load fire. Some of the regular culprits are ashes from wood stoves thought to be out, other chemicals which interact once combined, and even a discarded lit cigarette left to smolder. Often there is little evidence of a problem until the material has been dumped into the back of the truck, and air introduced by driving down the street. A barely smoldering fire can be fanned to become a free-burning problem. Once going, the only safe way to extinguish it is to dump the load out onto the ground and allow the local Fire Department to hose it down.

When a hot load occurs during a route, a well-trained driver will normally eject the load into the street. There may be cleanup costs involved, but the truck is rarely lost in those situations. Because time is critical during a hot load fire, drivers and helpers must be well-trained so they can react quickly.

The final 25% of waste vehicle fires in the study were caused by a variety of factors. Some fires could be attributed to hydraulic fluid leaks, frozen wheel bearings, tire fires, or holes in the exhaust system. Additionally, engine compartment fires often were related to fuel or oil leaks, but they also could have been caused by trash or debris entering the engine compartment. Incidences of engine compartment fires, fluid leak fires, and tire and wheel bearing fires can be greatly reduced by proper maintenance procedures and routine inspection of hydraulic hoses, fuel lines, and the exhaust system. Also, because those types of fire almost always occur when the vehicle is in use, prompt action by the driver may be able to save the truck from becoming a total loss.

Load fires can heat the CNG storage tanks, raise the pressure, and cause them to “off-gas.” Thus the reason to discharge any load fire as soon as possible, which is the standard of the industry.

VEHICLES FIRES CAN QUICKLY burn up a waste company's profits. Although such accidents tend to occur less frequently than other types of losses in the waste industry, fires tend to be costly. Because of the potential for serious loss, it is important to know why vehicle fires occur and what can be done to prevent them or limit their damage.

As with any type of fire loss, the exact cause of a vehicle fire often is difficult or impossible to determine for certain. Many fires occur while the vehicle is parked overnight, leaving only the charred remains as evidence for determining a cause. However, a recent study about vehicle fires revealed several primary causes.

To reduce the risk of waste vehicle fires, fleets should take the following precautions:

1. The best thing is to prevent the fire from starting in the first place. A good prevention program begins with educating customers regarding combustible items that should not be placed in their refuse. These items include hot ashes from fireplaces or barbecues, paints or paint thinners, oils, fuels, brake fluid, pool or spa chemicals, and automobile batteries. The above items, either by themselves or in combination with each other, are the most common causes of hot load fires. This education can take the form of flyers accompanying a bill, a blurb on the company's website, stickers on containers or residential carts, or public service announcements.

The second best way not to lose a truck is to spot the fire as early as possible and take quick corrective action. The sooner a fire is detected, the greater the chance of saving the truck. Again, training is key. Both drivers and helpers need to be alert to the telltale signs of a hot load fire: smoke, acrid odors, blistering paint, or a hot spot on the body of the truck.

If a hot load fire is detected, the driver should immediately call the fire department. Then, if it can be SAFELY accomplished, the driver should eject the load (preferably on a flat, paved service) and then move the truck away from the burning refuse. There are situations where a hot load fire can grow to a point where ejecting the load cannot be accomplished safely, and in these cases, the driver should move away from the truck and wait for the fire department.

2. Ensure that drivers and helpers know how to identify prohibited items during the collection process. While it may not be possible to stop every prohibited item, the fewer of these that make it into the waste truck, the less chance there is of a fire.
3. Ensure that battery disconnect switches are installed on all refuse trucks. Also, establish a written company policy regarding the mandatory use of the switches when trucks are parked. Periodically spot-check trucks to verify that drivers are using the battery disconnect switches.
4. Conduct monthly documented inspections of all battery cables, including checking for frayed cables, missing cable tie-downs, missing through-hole grommets, and buildup of grease and debris. A variety of after-market battery cable-insulating materials is available to reinforce problem areas.
5. Conduct monthly inspections of the fuel lines, crankcase, hydraulic hoses, and exhaust system. All leaks should be repaired and any leakage cleaned up.
6. Establish a written company policy regarding driver procedures for handling hot loads and other vehicle fires. Also, make sure drivers keep vehicles clean, especially behind the blade.
7. Conduct safety meetings for current drivers and establish training for all new drivers to ensure everyone is familiar with company policies concerning vehicle fires. Frequently remind drivers of the importance of preventing vehicle fires and how to deal with them. This can be accomplished with bulletin board messages, paycheck stuffers, and reminders during regular driver safety meetings.
8. Avoid leaving waste trucks and transfer trailers loaded overnight. Make every effort to create space between parked trucks. A truck that was late returning to the yard was left parked in the Public Works lot still filled with the day's load of trash. That was the night that the truck caught fire and spread to the entire fleet of trucks before the fire department was notified. This is not uncommon since public works yards are often in a remote, lesser populated area, of the town where fires can go unnoticed for extended times.

