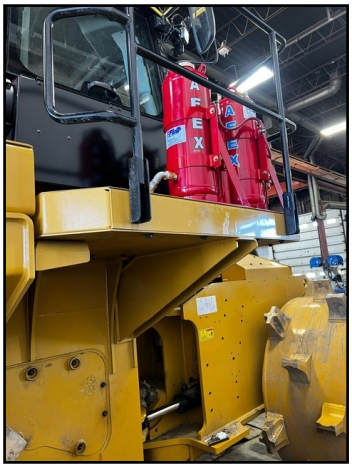
CASE STUDY: FIRE SUPPRESSION SYSTEM - LANDFILL ENVIRONMENTS

APPLICATION: COMPACTOR



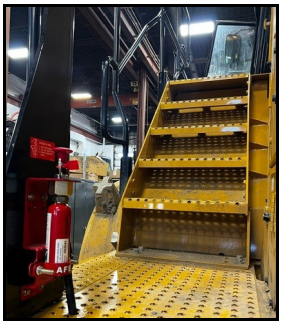
Waste handling equipment operates in a tough environment with unique fire hazards. Hydraulic oil leaks and trash accumulation can ignite quickly, engulfing expensive machines in flames in a matter of minutes. An onboard fire suppression system provides a prompt response to vehicle fire, knocking down engine and trash fires quickly to reduce equipment damage.

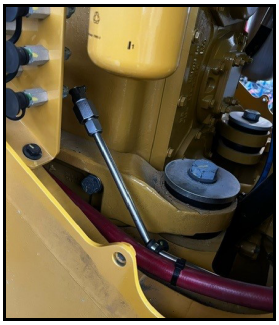
THE FLO SOLUTION

FLO provided a dual dry and liquid system. Fire-detecting linear wire is placed around the compactor. When the high heat of a fire penetrates the linear wire, a signal is sent to the control panel in the cab. The control panel alerts the driver to quickly evacuate the compactor and at the same time, automatically initiates the electric actuator, which discharges the fire-fighting agent inside the onboard tank and sends it through a tubing distribution network. At the end of the distribution network, the dry chemical agent is disbursed into the compactor's protected areas via nozzles aimed at its high-hazard components, like starter, fuel filter, batteries, alternator, transmission and hydraulics, to extinguish the fire quickly and efficiently. The 5gal, 4 nozzle liquid chemical agent part of the system rapidly cools super-heated temperatures and components, thus avoiding fire re-ignition.

Fire Suppression System Features:

- Cone spray nozzles are used to provide protected areas with a broad distribution of a dry chemical powder to extinguish a fire quickly and efficiently.
- The automatic discharge nature of the FSS eliminates the compactor operator's involvement in discharging the system manually, allowing him to exit the machine safely and promptly.
- 2 manual actuators, 1 inside of the cab and 1 outside, are also included as a back-up and for ease of system activation.
- A 60lb tank comes complete with dry chemical agent, gas tube, cap, and bursting disc. The tank is non-pressurized, with the introduction of nitrogen gas for pressurization at the time of actuation. A fitted mounting bracket for the tank and two metal straps keeps the tank properly secured during operation of the compactor.
- Each nitrogen cartridge consists of 99.99% nitrogen with a dew point of -73 °C, guaranteeing pressurization when actuation of the system is required during the coldest months.
- Spring loaded, hinged caps at the nozzle openings block foreign materials that could possibly clog the nozzle and prevent or diminish the system discharge.
- Stainless steel tubing and hydraulic hose is used for the supply lines that distribute the dry chemical agent, as well as for system actuation and agent tank pressurization.
- The firing mechanism houses the electric actuator and nitrogen cartridge and includes a manual knob as a secondary method of discharging the system. Spring loaded check valves control the direction of the nitrogen gas.





For Fire Suppression Solutions,

GO WITH THE FLO!

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