

DPW Garage Fire Safety

PRIMEX³ RISK MANAGEMENT BULLETIN

Fires in public works highway and maintenance facilities can be major losses both financially and operationally. In New Hampshire alone we have at least one large loss fire involving DPW facilities and equipment annually. Though low frequency, these events are high severity with loss of buildings and expensive rolling stock and related maintenance equipment. These losses have significant impact on risk pool performance, local rates and contributions and significant operational impacts particularly during the winter months with the loss of equipment needed for snow removal operations.

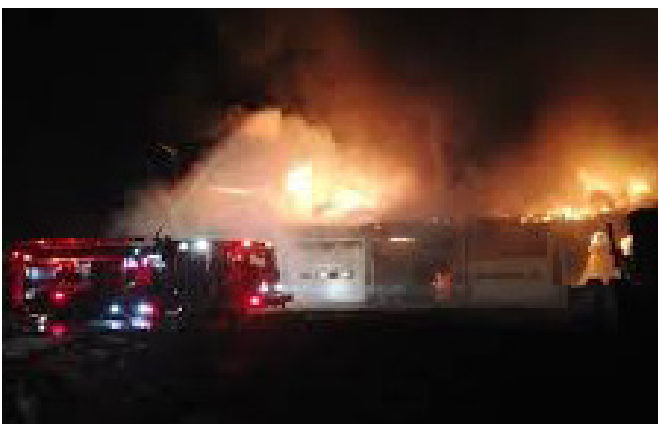


Several Highway Department plow vehicles, tools, records and one building were lost in a fire.

Public Works facilities contain flammable chemicals, fuels and tanks that could turn a small fire into a serious incident. Certain materials, such as paints, fuels, aerosols and other flammable or combustible materials can cause intense fires.

Fire prevention in the DPW facilities begins with preventive maintenance, good housekeeping, and proper storage of equipment and materials. Complete fire prevention and safety requires a more comprehensive approach such as fire alarm systems, fire suppression systems and a more thoughtful approach to building design and compartmentalization. Statistically, one of the biggest causes of fires in DPW facilities is a vehicle electrical fire that spreads to nearby equipment and buildings. Here are some identified areas of focus to limit fire loss in DPW facilities:

- **Housekeeping:** Limit the amount of combustible materials in work areas and keep them from accumulating. Store quick-burning, flammable materials in designated locations away from ignition sources and store oily waste in covered metal containers. It is also important to maintain clear access to fire extinguishers and other emergency equipment.
- **Building Compartmentalization:** Provide for “fire compartments” within the building for limiting the spread of fire and smoke. Compartmentalizing takes a building and divides it into sections using building features like fire rated walls (sheetrock), self-closing fire doors, and effective fire-stopping between areas of the building that may be penetrated by electrical wiring, plumbing, and ventilation.

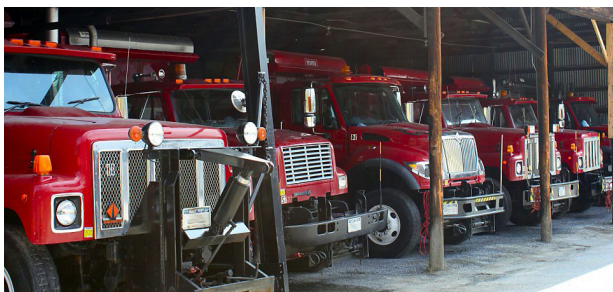


A plow truck fire can spread to the highway garage causing a total loss.

DPW Garage Fire Safety (continued)

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- **Fire Detection and Monitoring:** Monitored fire alarm systems can provide early identification of a fire where damage can be minimized. Many DPW facilities sit far from the road and are in many cases on limited travel highways where recognizing a fire is not all too likely. A fire alarm system will consist of several devices working together to detect and warn of a fire such as smoke detectors and heat detectors and also manual pull stations. Alarms should be monitored by a call center or tied into a municipal fire alarm system. On site warning horns and fire alarm strobes are also recommended.
- **Battery Disconnect Switches:** Vehicle electrical fires are the leading cause of DPW facility fires. Agencies should ensure that vehicles, particularly larger commercial vehicles, are equipped with battery disconnect switches that are used when trucks are parked, particularly during off hours (overnights and weekends). Many newer commercial vehicles are factory equipped with these devices and older vehicles can be retrofitted for less than \$100 (parts only).
- **Fire Extinguishers:** It's important to have the proper number and type of fire extinguishers in the facility and they should be clearly labeled so that their location can be easily identified in the event of an emergency. Your local fire department can provide guidance on the proper number and type to install.
- **Fire Suppression Systems:** While expensive, a fire suppression system (sprinkler system) in the facility can provide for significant life safety and property conservation should a fire occur. A fire in a NH DPW facility can easily justify a fire suppression (sprinkler) system in many NH DPW facilities.
- **Fleet Parking Strategies:** Dump trucks, utility vehicles and specialized heavy equipment should be parked in such a way to limit loss severity in the event of a fire. Where vehicles park adjacent to one another consider larger gaps between vehicles or alternating cab forward arrangements on adjacent units to limit fire spread from unit to unit.



Though seemingly organized fleet parking, this type of parking promotes rapid, large loss fires as the fire can easily spread from truck to truck.

Preventing fires in DPW facilities and limiting loss if a fire were to occur requires a thoughtful, comprehensive approach. While measures can be expensive they are arguably far less than resulting fire loss which can easily push \$1 million and have dramatic DPW operational impacts to include loss of facilities and important rolling stock such as snow plows during the winter months.

For help in assessing and managing your DPW fire risk, please contact your Primex³ Risk Management Consultant at 800-698-2364 or email RiskManagement@nhprimex.org.