

Information Bulletin

Electrical Fires in Commercial Vehicles



The New York State Office of Fire Prevention and Control (OFPC) Investigation Unit recently investigated another incident involving fire damaging commercial vehicles. Our staff have found these incidents involved various commercial vehicle manufacturers and most had been outfitted with snow plows or sander bodies. These incidents often resulted in fire damage to vehicles parked adjacent to that initially involved. On occasion the fire extended to and significantly damaged the structure that the vehicle was housed in. These fire incidents represent significant dollar loss in addition to the catastrophic devastation to a municipality's vital equipment and infrastructure.

Common Fault - The cause of these recent fires appears related to the electrical systems of these large commercial vehicles. Fire Investigation revealed electrical short circuiting as a result of worn electrical cable insulation as shown in photo A.

These failures appear to occur where large capacity electrical cables interact or come in contact with the chassis frame or short to ground. Additional electrical equipment problems have been discovered attributable to missing or improper fusing of installed equipment.

As a result of these devastating fires and others of a similar nature during past winter seasons, the Office of Fire Prevention & Control urges all agencies who operate commercial snow plow vehicles to consider the following fire prevention measures as part of your agencies preventive maintenance program;



Photo A

Prevention Measures -

1. **Inspect** battery cables and vehicle electrical distribution wiring for signs of wear, chaffing or contact with the frame and secure as necessary to prevent abrasion as illustrated in photo B.
2. **Inspect** the Fuse protection of the electrical system to assure proper fusing of circuits and secondary equipment. Fuse protection should include fail safe protection from incidents of a main electrical cable short or failure. Consult the vehicle manufacturer as necessary for guidance.

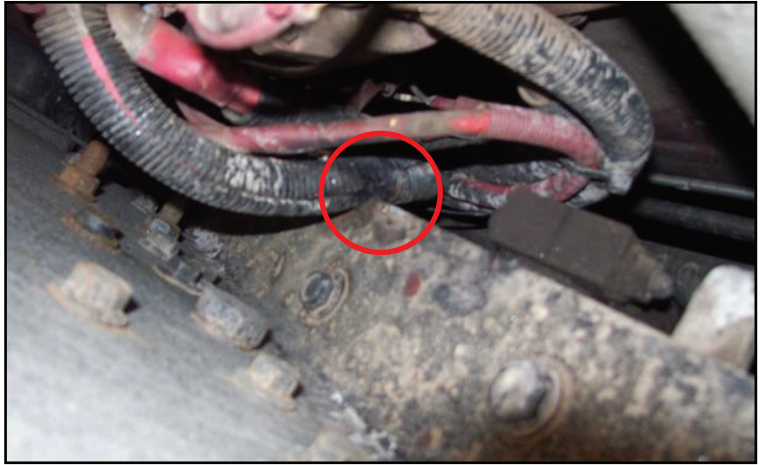


Photo B

3. **Routinely** maintain all electrical connections to assure they remain tight and free from corrosion.
4. **Follow** all manufacture recommendations for the proper installation and operation of the vehicle electrical system to include all aftermarket equipment requiring electrical connection to the vehicle systems.
5. **Inspect** fuel and hydraulic lines for signs of wear and repair and secure as necessary to prevent abrasion.
6. **Protect your facility** by ensuring the building complex is free of common fire hazards and that suitable fire prevention measures are in place and working, to include an effective early fire detection alarm system.

