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Filter Fires!
Hot Surfaces - M/NM Mines

The installation of diesel particulate matter filters on equipment can increase the risk of fires. Other *Best Practices* have discussed the hazard of paper filter element fires on part 36 permissible equipment and the potential for uncontrolled regeneration (fire) in a ceramic filter. However, another fire hazard can be created by adding exhaust system components to a machine. Adding exhaust system piping and filter housings increases the area of the exhaust system thereby increasing the chance it will come in contact with combustible material. Exhaust system components may achieve temperatures in excess of 1000°F. This is hot enough to ignite most combustible materials including potential sprays of hydraulic fluid from broken hoses. This is also hot enough to injure workers that may come in contact with these components

Good housekeeping- spray washing of machines, fixing leaks, keeping machine covers in place, etc., is necessary to keep machines free of combustible accumulations. Flammable or combustible liquid spillage or leakage must be removed in a timely manner or controlled to prevent a fire hazard, §57.4102.

Non-absorbent (both inside and outside surfaces) insulating materials applied to hot surfaces can greatly reduce the fire risk. Exhaust system insulation should be installed in accordance with the filter manufacturer's recommendations. Guarding of easily contacted exhaust system components may be necessary to protect personnel.

Since the addition of uninsulated exhaust piping and filter housings can increase the fire hazard, a fire risk assessment of the machine should be performed. Changes to the machine's fire suppression system, if so equipped, such as additional fire suppression system nozzles or sensors may be needed. Consult your fire suppression system manufacturer or their authorized representative.