

FIRE HAZARD ALERT

**24 UG MNM
 Mine Fires Have
 Occurred From
 1/1/2007 to
 3/19/2010**



Common Causes of Fires



Inadequate Maintenance of Equipment or Electrical Circuits

- Failure to maintain equipment as required by manufacturer's specifications.
- No established procedures for maintaining equipment.
- Fuel or fluid leak(s) not identified during pre-operational inspections, scheduled maintenance or unscheduled maintenance.
- Not following established maintenance procedures.



Biodiesel Degrades Rubber Fuel Lines, Seals, Gaskets, Filters, etc.

- Biodiesel fuels, B20 or blends greater, have caustic chemical properties. Rubber fuel lines, seals, gaskets, filters, etc. are not compatible. The rubber can degrade, rot and wear out quicker, leading to a need for more frequent inspections and maintenance on equipment and routine steam cleaning of engines.
- Manufacturers recommend that natural or butyl rubbers not be allowed to come in contact with pure biodiesel. Blends of B20 or lower have not exhibited elastomer degradation and need no changes. If a fuel system does contain these materials and users wish to fuel with blends over B20, replacement with compatible elastomers is recommended.

Reference Web Internet Address for MSHA's Biodiesel's Compliance Guide:

<http://www.msha.gov/REGS/COMPLIAN/Guides/MNMDPM/MNMDpmcompguide.pdf>

BEST PRACTICES TO PREVENT FIRES AND RELATED INJURIES



- Follow manufacturer's specifications.
- Establish routine inspection and maintenance schedules. This is extremely important. Failure to conduct frequent inspections and maintenance may result in equipment fires.
- Conduct thorough pre-op and maintenance inspections.
- Reroute or better secure hoses that show abrasion.
- Replace hoses where abrasion has exposed the structural braiding – the hoses are past their useful lives.
- Correct safety defects prior to use.
- Use Teflon fuel lines, seals, gaskets, filters, etc., with Biodiesel blends of B20 or greater.
- Inspect fuel systems often and conduct maintenance ASAP.
- Steam clean engines and fuel systems to be able to more easily identify leaks or deteriorated hoses.
- Maintain braking systems to prevent overheating.
- Fire extinguishers on pieces of equipment need to be maintained in operable condition.
- Train miners on fire fighting and fire suppression techniques.
- Identify escapeways and establish evacuation procedures.
- Train miners on escapeway locations and mine evacuation procedures.
- As required by 30 CFR 57.4361(a) conduct evacuation drills every 6 months.
- Inspect and maintain fire suppression systems.



Mobile Equipment Suppression Systems

