Kennecott Utah Copper Corporation Safety and Health Standards

Standard No. 16.25 Fire Suppression Systems For Mobile Equipment

16.25.1 **INTRODUCTION**

16.25.1.1 This standard outlines the minimum requirements for safeguarding mobile equipment and personnel against fire and related hazards. The standard is intended for all KUCC and contract employees who are responsible for purchasing, installing, testing, operating and maintaining fire protection equipment on self-propelled mobile equipment.

16.25.2 **DEFINITIONS**

16.25.2.1 **Fixed Fire Suppression System** - A total flooding or local application system consisting of a fixed supply of extinguishing agent permanently connected to fixed piping or hose. The system utilizes fixed nozzles arranged to discharge an extinguishing agent into an enclosure (total flooding) or directly onto a fire.

16.25.3 **REQUIREMENTS**

16.25.3.1 A risk assessment will be performed on all mobile equipment purchased at KUCC. (See Safety and Health Standard 15.3) The assessment will include at a minimum an evaluation of:

- The need for a fire suppression system.
- Use of detection and early fire warning devices.
- Normal and emergency means of egress from the equipment.
- Presence of barriers or enclosures to prevent or contain the spread of fire.
- Availability of qualified fire-fighting personnel and existing fire suppression equipment.
- Any other devises or procedure necessary to protect life and property.

16.25.3.2 Fixed Fire Suppression Systems will be maintained in proper operating condition at all times. Use, impairment, and restoration of the system shall be reported promptly to both the operating and maintenance groups responsible for the equipment.

- System equipment will be secure and suitably located or guarded to protect it from physical damage, including abrasion or corrosion.
- Systems may be automatically or manually actuated. Automatically actuated systems must also accommodate manual actuation from the operator's compartment and / or other suitable locations. Example: mine haul trucks can be manually activated from the operator's cab or from the ground at the base of the access stairs.
- Discharge nozzles shall be protected against entrance of environmental debris by blow off caps or other similar devices that open or blow off upon discharge.

References:
NFPA Standard 121
MSHA 30 CFR 56,57,58
KUCC Safety and Health Standard 15.3 Vehicles and Driving

Signatures

Original signed by: Frank Klobchar	05/09/06	Original signed by: Scott Lawson	06/21/06	Original signed by: Bill Champion	06/23/06
Standards Committee Chairman	Date	VP and GM Engineering and Technical Services	Date	President, KUCC	Date

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16.25.3.3 Where inadvertent discharge of the fire suppression system during servicing could result in injury to personnel or damage to equipment, isolation provisions must be made to safeguard against accidental actuation.

16.25.3.4 Personnel who operate mobile equipment shall receive training on the equipment fire suppression system, as part of their operator task training including:

- o Basic system function
- o Proper daily inspection of the system.
- o Proper operation of the system.
- o Emergency fire procedures.

16.25.3.5 Personnel responsible for testing and maintaining fire suppression systems will be trained on these duties using manufactures training programs whenever possible.

- o An installation and maintenance, or owners, manual will be available for all fire suppression systems and equipment. These references will be kept on file by the group responsible for maintaining the system.

16.25.3.6 All fire suppression equipment and systems shall be tested after installation in accordance with the manufacturer's recommendations. Testing need not require the discharge of the suppressant unless there is no other satisfactory manner in which the reliability and integrity of the system can be verified. (See NFPA standard 121).

16.25.3.7 All fire suppression systems will be thoroughly inspected for proper operation in accordance with the manufacturer's recommended procedure and schedule. All systems will be tested annually. (See NFPA standard 121).

- o All systems shall receive a visual check before the equipment is operated each day. The operator should ensure that the system has not discharged and that all visible components appear intact.
- o Any fire suppression equipment found deficient will be repaired or replaced and the system re-tested for proper operation before the equipment is put into use.

16.25.4 **RESPONSIBILITIES**

16.25.4.1 Facility maintenance personnel are responsible for:

- o Writing mobile equipment purchasing specifications to include a fire risk assessment on all mobile equipment purchased at KUCC.
- o Ensuring all fire suppression equipment and systems are tested after installation and a schedule is established for annual testing.

16.25.4.2 It is the responsibility of the Facility Safety Engineer to review and approve all proposed fire suppression systems on mobile equipment.

16.25.4.3 The supervisor is responsible to ensure each mobile equipment operator receive training on the equipment fire suppression system, as part of their operator task training.

16.25.4.4 It is the responsibility of all mobile equipment operators to conduct and document a daily visual inspection and promptly report any use or impairment of a fire suppression system.

16.25.5 **RECORDKEEPING**

16.25.5.1 All equipment fire system inspections will be maintained as part of the daily pre-operation inspection requirements. Records must be maintained for six months.

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