



# HEALTH & SAFETY STANDARDS

## Explosive Handling and Blasting

Effective Date: 02/16/10

Standard: 16.24

Document Number: KUCSH00034

Rev: 05

posted with "Danger, Explosives Storage Area" signs.

- 16.24.2.2 Explosives will be transported in accordance with ATF regulations, which require Class 1.1 (Explosives with a mass explosion hazard) explosives be transported in approved nonconductive containers and be transported in a separate vehicle from that of Class 1.4 (Explosives with no significant blast hazard) explosives. Explosives can be transported in the same vehicle (bed of truck) if a box of 4" hardwood or the equivalent be prepared with two compartments separating the explosives by class. The construction of the transport box must be in compliance with ATF regulations.
- Persons driving the vehicle containing explosives must be trained for the task. The explosives are to be transported directly to the delivery point from the magazines over routes calculated to expose a minimum number of people. Similarly, explosives to be returned to the magazines are to be transported the most direct route and immediately returned.
  - No metal tools, carbides, oils, matches, firearms, electric storage batteries, flammable substances, acids, or oxidizing or corrosive compounds shall be carried in the bed or body of any vehicle transporting explosives. Other materials or supplies shall not be placed on or in the cargo space of a conveyance containing explosives, detonating cord, or detonators, except for safety fuse and properly secured, non-sparking equipment used expressly in the handling of such explosives, detonating cord, or detonators.
  - The number of employee(s) involved in the transportation and use of explosives shall be limited to the least number of people required to perform those tasks.
  - No employee shall smoke while transporting or handling explosives or detonators. Smoking or open flames are prohibited within 25 feet of explosives or detonator.
  - Vehicles used in the transportation of explosives and detonators shall be operated in accordance with established safe-operating practices. Vehicles shall be well maintained and in good operating condition.
  - When vehicles containing explosives or detonators are parked, the brakes shall be set, the motor shut off, and the vehicles shall be blocked securely against rolling. The vehicles shall not be left unattended except in blasting areas where loading or charging is in progress.
  - Only vehicles specifically equipped shall be used for the transport of detonators and explosives. Vehicles shall be

Page 2 of 7

Plant:

PRINTED COPIES ARE UNCONTROLLED

©Kennecott Utah Copper. The standards on the KUC Intranet website are considered the standard in effect and supersede all other revisions.

KUFM00076





# HEALTH & SAFETY STANDARDS

## Explosive Handling and Blasting

Effective Date: 02/16/10	Standard: 16.24	Document Number: KUCSH00034	Rev: 05
--------------------------	-----------------	-----------------------------	---------

- 16.24.4.1 Only personnel that have completed the designated Smelter Explosives Training Program and have been approved by the Hot Metals Superintendent may have access into powder magazines for removal of explosives. The security department will unlock each magazine at the request of the Blasters or Hot Metals Superintendent.
- 16.24.4.2 An audit of the usage and current inventory of the explosive materials will be conducted quarterly by the Hot Metals Superintendent. The Bureau of Alcohol Tobacco and Firearms is to be immediately contacted if explosives are determined as lost or stolen. Additionally, the KUC Security Director must be notified in order to contact the Department of Homeland Security.
- 16.24.4.3 To initiate the procedure for obtaining explosives for blasting, the approved Blaster is to contact security and make the request from the Security Supervisor in charge on the shift. The Security Supervisor will report to and remain at the storage facility until the transfer is complete, each magazine is locked, and the gate locked. It is not the responsibility of security personnel to inventory the explosives. This is the responsibility of the approved Blaster.
- 16.24.4.4 Only one storage magazine is to be opened at a time. Upon removing explosives from the magazine, the explosives are to be placed immediately into the "Day Boxes" for transport. The explosives are to be kept in the "Day Boxes" until used. The "Day Boxes" are to be in the presence of the Blaster or his designated helper at all times. Only authorized persons are to handle, transport or perform other tasks with explosives.
- 16.24.4.5 All blasting will be performed under the direct control of an approved Blaster and will conform to all State and Federal regulations and the KUC Smelter Explosive Safety Program.
- 16.24.4.6 The standard practices for High Temperature Blasting are defined in the KUC Smelter Explosive Safety Program. Procedures have been prepared for blasting in the Flash Smelting Furnace and Flash Converting Furnace Waste Heat Boilers and the ESPs. Variance from these procedures is prohibited unless the procedures are modified and approved by the Hot Metals Superintendent Facility Safety, and the Plant Manager.
- 16.24.5 **RESPONSIBILITIES**
- 16.24.5.1 The Blasting Supervisor is responsible to ensure that all personnel



**HEALTH & SAFETY STANDARDS****Explosive Handling and Blasting**

Effective Date: 02/16/10

Standard: 16.24

Document Number: KUCSH00034

Rev: 05

**REVISION HISTORY:**

MOC#	Description of Change	Prepared By	Date
11428	Scheduled review and update also updated format and Document number added.	KUC Safety and Health Standards Committee	02/10