



## COMMONWEALTH OF VIRGINIA

*Department of Mines, Minerals and Energy*

Division of Mineral Mining

900 Natural Resources Drive, Ste.400

Charlottesville, VA 22903

(434) 951-6310

Conrad T. Spangler III, Division Director

### **MEMORANDUM**

TO: All Licensed Mine Operators and Blasting Contractors

FROM: \_\_\_\_\_  
Conrad T. Spangler, Division Director

SUBJECT: Flyrock Prevention

DATE: September 28, 2006

The mineral mine community in Virginia has experienced a number of flyrock incidents in the recent past. More specifically, there have been 5 reported incidents since December 2003; 4 of them have occurred since March 2005.

This is a matter of grave concern to the Division. All of these incidents had the potential to cause death or serious personal injury to citizens.

All operators and blasting contractors in the Commonwealth of Virginia are urged to review their policies and blasting procedures to assist in the elimination of this problem.

Furthermore, the Division strongly recommends that all operators and blasting contractors provide additional training in flyrock prevention to their certified blasters.

The occurrence of flyrock can be considered an "imminent danger", and result in the issuance of a Closure Order to the operator. All incidents of flyrock should be reported to the Division of Mineral Mining by the quickest available means.

The Division stands ready to provide assistance to all operators and blasting contractors, including training, training materials, and on-site assistance.

If you have any questions or requests for assistance, you may contact your mine inspector, Tom Bibb, or me at (434) 951-6310.

Enclosure

DEPARTMENT OF MINES, MINERALS AND ENERGY  
DIVISION OF MINERAL MINING



**LAWS AND REGULATIONS APPLICABLE TO THE PREVENTION OF FLYROCK**

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**REFERENCE:**

Mineral Mine Safety Laws of Virginia 2003 Edition

**Section 45.1-161.292:2. Definitions**

“Imminent Danger” – means the existence of any condition or practice in a mine which could reasonably be expected to cause death or serious personal injury before such condition or practice can be abated.

**Section 45.1-161.292:64. Closure Order**

A. The Director or a mine inspector shall issue a closure order requiring any mine or section thereof cleared of all persons, or equipment removed from use, and refusing further entry into the mine of all persons except those necessary to correct or eliminate a hazardous condition, when (i) a violation of this chapter and Chapters 14.5 (§ [45.1-161.293](#) et seq.) and 14.6 (§ [45.1-161.304](#) et seq.) has occurred, which creates an imminent danger to the life or health of persons in the mine; (ii) a mine fire, mine explosion, or other serious accident has occurred at the mine, as may be necessary to preserve the scene of such accident during the investigation of the accident; (iii) a mine is operating without a license, as provided by § [45.1-161.292:30](#); or (iv) an operator to whom a notice of violation was issued has failed to abate the violation cited therein within the time period provided in such notice for its abatement; however, a closure order shall not be issued for failure to abate a violation during the pendency of an administrative appeal of the issuance of the notice of violation as provided in subsection D of § [45.1-161.292:63](#). In addition, a technical specialist may issue a closure order upon discovering a violation creating an imminent danger.

**Virginia Safety and Health Regulations for Mineral Mining 2004 Edition**

**4 VAC 25-40-10 Definitions**

“Flyrock”- means any uncontrolled material generated by the effect of a blast that was hazardous to persons, or to property not owned or controlled by the operator.

**4 VAC 25-40-800 Use of Explosives**

D. The design and loading of a blast shall provide sufficient burden, spacing, and stemming to prevent flyrock and other dangerous effects.