



DMM Safety Alert: Flyrock

In September 2007, a quarry blast resulted in fifteen rocks being thrown from the top quarry bench onto adjoining private property. Fortunately, no injuries to persons or property damage resulted from this incident. The Virginia Division of Mineral Mining safety regulations require blasters to design shots with sufficient burden, spacing and stemming to prevent flyrock or other dangerous effects (4VAC25-40-800.D). When designing shots for upper benches in close proximity to adjoining residential, commercial or industrial properties, certified blasters should consider additional control measures to prevent flyrock including:

- Using smaller diameter boreholes and reducing powder factors in areas of weak or broken rock.
- Ensuring that drill pattern burden and spacing are adjusted to account for actual geologic conditions at the site.
- Orienting the free face towards an area of the pit away from adjoining private property.
- Reducing the maximum charge weight per delay period.



Blasters certified by the Board of Mineral Mining Examiners must use extreme caution and carefully consider the blast site conditions when designing shots to avoid property damage or injury to persons on or off mine property.