



**Fatality #1 - January 11, 2012
(Victim Died January 18, 2012)
Exploding Vessels Under Pressure - Underground Mine - Virginia
Consolidation Coal Company, Buchanan Mine #1**

COAL MINE FATALITY - - On January 18, 2012, a 44-year-old utility/diesel tram operator with 1 year and 8 months mining experience, died from injuries he received on January 11, 2012. The miner was repairing a damaged water outlet (fire valve manifold) when a 1.5 inch bronze ball valve (quarter turn valve) catastrophically failed, propelling the steel manifold into the miner's face/head. This fire valve manifold was originally damaged when an oversized load being transported on the adjacent mine track haulage system contacted the outlet causing it to separate from the 6" mine water supply. The failure resulted from the internal threaded body of the valve separating from the external threaded portion of the valve.



Water manifold reinstated during investigation



Photo depicts the actual valve separation

Best Practices

- When performing work on pressurized water supply piping systems, STOP ALL water flow into the pipe being worked on; BLEED ALL residual pressure from the pipeline, and when possible, OPEN A VALVE at an alternate location to ensure constant pressure relief. LOCK OUT and TAG OUT these valves to ensure safety while repairs are made.
- NEVER REUSE components in a pressurized line that may have been damaged or compromised.
- Ensure that components, such as valves, couplings etc. used in a pressurized water system are compatible with the highest measured or expected STATIC pressure in the system.
- Implement a Standard Operating Procedure for the design, installation, testing, and maintenance of pressurized fluid systems that is consistent with National Fire Protection Association (NFPA) standards.
- Install slow closing indicating valves. When opening a valve to put water flow into a pressurized system, do it slowly and minimize your exposure to pressurized components. See slow closing indicating valves on MSHA's Belt Fire Suppression Simulator at the National Mine Health and Safety Academy.
- Inspect, examine, and evaluate all materials that are being used during installation, replacement, or repair of pressurized water systems to ensure suitability.
- Properly train all miners on the hazards associated with working on or around pressurized fluid piping systems.
- Maintain safe and adequate clearance to prevent mobile equipment and machinery from contacting pressurized lines, valves, etc.
- Install barriers to prevent equipment from damaging piping and valves.

- Ensure adequate supervision is in place when moving oversized equipment in haulage entries.

This is the first fatality reported during calendar year 2012 in the coal mining industry. As of this date in 2011, there were no fatalities reported in coal mining. This fatality is classified as an Exploding Vessels Under Pressure accident.

The information provided in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.
