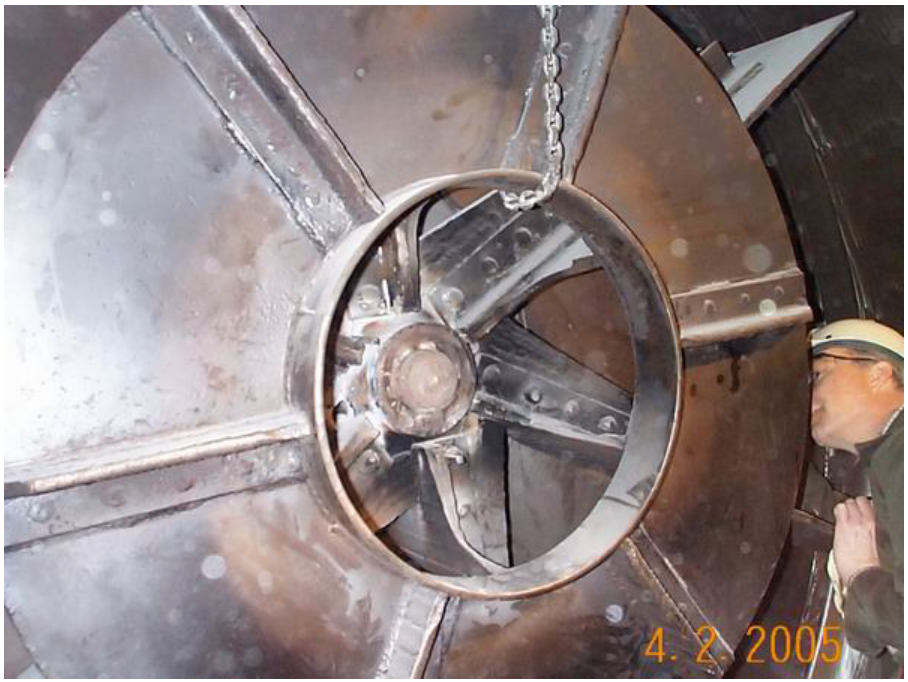
Virginia Department of Mines Minerals and Energy

Division of Mineral Mining

Fatal Accident: Equipment Mechanic April 1, 2005

A 50-year-old mine company mechanic was fatally injured while replacing a bearing/shaft assembly for a coal mill exhaust fan. After replacing the bearing/shaft assembly, the crew began installing the exhaust fan onto the drive shaft. A porta-power 100-ton capacity hydraulic jack was used to apply pressure to a make-shift ram assembly to push the fan hub onto the drive shaft. The ram assembly failed suddenly, and the victim was struck in the head by one of the metal components of the failed ram assembly. The victim suffered severe head trauma.



Exhaust fan that was being installed.

The metal ring and metal bar in the foreground of this photo were positioned between the port-a-power jack and the ram assembly.

CONCLUSIONS/RECOMMENDATIONS: **This accident occurred due to unsafe working conditions and unsafe work practices. The porta-power jack was used in a way for which it was not designed. In addition, the make-shift ram assembly, which was comprised of at least five separate metal parts, was constructed in a manner that did not prevent it's components from becoming airborne. Virginia Safety and Health Regulations for Mineral MIning require that machinery and equipment be used only for the purpose and within the capacity for which they were intended and designed (4 VAC 25-40-330). The Division of Mineral Mining recommends that operators and contractors periodically conduct job safety/risk analyses to identify potential safety hazards associated with all work tasks and to develop safe work procedures.**