



Division of Mineral Mining

Serious Injury Accident: Mobile Equipment Accident June 2, 2004

A mine contractor's heavy equipment operator was seriously injured when the loaded Caterpillar 621B scraper he was operating turned over while taking a right turn around a stockpile. The victim's left foot was slung out of the cab as the vehicle turned over and the forward portion of his foot was crushed between the cab-mounted grab rail and the ground. The victim was transported and admitted to a hospital for emergency surgery and, due to the severity of the injury, a portion of the victim's left foot had to be removed. The primary cause of the accident was determined to be very low air pressure in the left rear tire of the scraper (32 psi versus recommended 55-60 psi). Further investigation revealed that an o-ring seal was missing from the tire, which allowed air to leak. Contributing factors to the accident included the operator's lack of experience operating the scraper (only 1 week of experience) and rough road conditions. Although the victim had been task-trained, a written training plan was not available.



The scraper after righting. Note small pile of material that was dumped when the scraper turned over.



The injured miner's boot.

RECOMMENDATIONS: Equipment operators must inspect their equipment prior to use each shift, notify the certified mine foreman of any safety defects, and correct any safety or health defects before the equipment is used (4VAC25-40-145). Tire inflation should be monitored closely on all mobile equipment, and the equipment should be maintained according to the manufacturer's specifications (4VAC25-40-360). Roadways should be marked, maintained in a smooth condition, and posted with appropriate speed limits and traffic controls for the equipment being used (4VAC25-40-1390/1540). Task training for new equipment operators should follow a written plan and include an extended period of observation by the trainer to assure proper operation of the equipment (4VAC25-40-100).