



MSHA's Accident Prevention Program Innovative Products



“Emergency Escape from Mobile Equipment”

In the event of a fire on surface mobile equipment, miners need a way to quickly and safely escape to ground level. Depending on the location of the fire, exiting the machine via ladders or stairs may not be possible. Some operations and equipment manufacturers provide knotted ropes for miners to climb down in emergency situations. This may not be ideal in some



situations since miners could be injured and a rope does not provide protection from flames.

Emergency escape chutes are available and provide a more accommodating and innovative solution to emergency escape from mobile equipment. The miner deploys the emergency escape chute from outside the operator's cab and sits on the edge of the entry point. They lower themselves into the chute while pressing their arms and legs against the walls, which provides enough resistance to stop. By relaxing the pressure against the chute they will descend to the

ground. The chute design gives the miner full control of their speed while the outer layer protects them from flames and heat.

Emergency escape chutes are currently being used on haul trucks, shovels, loaders and draglines in several countries, including the US. In one documented case where an escape chute prevented serious injury or death, a fire broke out in the engine of an excavator. Intense heat blocked escape through the cab door and access to the stairs. The operator was able to exit through the right side window, deploy the emergency chute and slide to the ground. He was then able to move away from the fire, unharmed.

For information on manufacturers that are known to MSHA to have such products available, contact MSHA's Applied Engineering Division at 304-547-2303 or e-mail zzMSHA-InnovativeProducts@dol.gov.