

- Look for adequate bumper blocks, safety hooks, or similar impeding devices at dumping locations.
- Be careful! Too much moisture can weaken the pile.

### **Bins and Hoppers**

Watch for overhead obstructions, chutes, gratings, stopping blocks, and guide rails. Look over the area and check for any damage to these features before pulling in to dump. Dumping at these areas is very repetitive and special efforts are needed to maintain driver awareness – stay alert!

# **Falling/Sliding Material, Highwalls and Banks**



## **Best Practice Series BP-69**



Falling/sliding material and unstable highwalls and banks are potentially very dangerous situations that can cause serious injuries or even death.

The following generic safety tips are designed to help equipment operators and miners work more safely.

### **General Safety**

- ✓ **ALWAYS** wear appropriate protective equipment for the job you're doing.
- ✓ **ALWAYS** follow all safety rules and procedures. Shortcuts can kill.
- ✓ **ALWAYS** use mining methods that will maintain highwall, material, and bank stability.
- ✓ **NEVER** work near or under dangerous piles, highwalls, or banks.
- ✓ **NEVER** travel or work between machinery or equipment and piles, highwalls, or banks.

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## Examinations

- ✓ **ALWAYS** have an experienced person examine highwalls and banks before working in an area after blasting, after every rain, freeze, or thaw, and as ground conditions warrant during the work shift.

## Correcting Unsafe Conditions

- ✓ **ALWAYS** take down unsafe conditions that create a hazard to persons before allowing work or travel in the affected area, or post and, if left unattended, provide a barricade.
- ✓ **ALWAYS** scale hazardous areas before performing any other work.
- ✓ **ALWAYS** scale material from a safe location.
- ✓ **ALWAYS** slope loose or unconsolidated material to the angle of repose or strip the material back at least 10 feet from the top of the wall.
- ✓ **ALWAYS** take precautions (such as sloping to 45 degrees or less) to minimize the possibility of spoil material rolling into the pit.

## Benches

- ✓ **ALWAYS** construct a bench or take other safety precautions immediately above the area where persons work or travel to protect them from material that may slide, ravel, or slough out of the highwall.
- ✓ **ALWAYS** make sure the height of any bench located immediately above a work area does not exceed the available equipment's ability to clean the bench wall.

- ✓ **ALWAYS** make sure the bench is wide enough to safely accommodate the equipment used to clean it.
- ✓ **NEVER** send persons onto a bench to clean it if the work cannot be done safely.
- ✓ **ALWAYS** provide a berm at the base of the wall or bank to prevent overtravel of material into work areas if benches can't be cleaned safely.

## Stockpiles

Stockpiles are especially hazardous when there are activities at the top edge and the toe. Loading out material at the toe causes sloughing which can cover the loader. It can also make the slope too steep, making the top edge of the pile unstable for trucks which may be dumping at the top.

- Pay attention to the stockpile and its surroundings.
- Always dump in an area where there are no activities immediately.
- Never dump over a slope that is too steep.
- Dump at least one truck length away from the edge.

## Spoil Piles

Spoil piles can be soft, weak, loose, and have steep slopes which may cause instability. Of special concern are dumps that are constructed by trucks end-dumping over the dump edge to form angle-of-repose slopes.

- Check the dump edge for sloughs and cracks along the edge before approaching the dump.