## **C\oplusRE**SAFETY

# How to Reduce the Risks of Dangerous Slips, Trips and Falls

Slips, Trips and Falls are among the five leading causes of mining fatalities, and account for roughly 30 percent of all accidents in the mining industry.
Avoid becoming one of these statistics by always wearing proper safety boots and being aware of conditions where you're working.

#### WHERE DO MOST ACCIDENTS HAPPEN?

If you slip or trip over an object left in a **walking area**, you could experience bruises, sprains, and fractures. If you fall from a **higher elevation** (off a box, a piece of machinery, or ladder), you might suffer broken bones, internal injuries, permanent disability or death. **Be aware of your surroundings!** 

#### SIX LEADING CAUSES OF FALLS IN MINING OPERATIONS

- I. Spills or slippery spots on walkways
- 2. Tools and equipment not put away
- 3. Loose ladder rungs
- 4. Debris on ground or walkway
- 5. Uneven walking surfaces
- 6. Poor vision

#### SIX WORKING CONDITIONS THAT CAN CAUSE A FALL

- I. Loose blasted or excavated materials
- 2. Uneven walking surfaces
- 3. Stairs, ramps and sloping surfaces
- 4. Adverse weather conditions
- 5. Mounting/dismounting of equipment
- 6. Reduced visibility Bad lighting

## WHAT INFLUENCES THE RISK OF SLIPPING?



- I. Overall environment
- 2. Type of ground surface
- 3. How it's contaminated
- 4. How it's being used
- 5. How people are behaving
- 6. Type of footwear

## CHOOSE THE RIGHT WORK BOOTS

Proper-fitting safety boots with slip-resistant rubber soles are critical.

**Multi-use:** Mining boots need extra heel protection, steel-toe and metatarsal guards, steel midsoles and outsole tread patterns for traction and stability in all kinds of outdoor and indoor working conditions.

**Slip-resistant:** Not all footwear is "slip-resistant" even if it claims to be. Choose boots with rubber soles with an effective tread pattern, especially if you're walking on oily, greasy or wet surfaces.

**Tread:** A heavy tread pattern gives a safer grip and additional protection against sharp objects. Very important when walking in surface mines.

Maintenance: Keep your boots free of mud, ice, snow, grease and oil.

Fit: A good fit means the boot is secure on your foot. Too big or too loose will cause instability and loss of balance.

#### **Comfort:**

If your boot feels good, you'll wear it longer. This will also promote normal walking strides and reduce fatigue.

**Flexible sole:** Gives a good sense of how slippery or rough the surface is where you're walking.

Flat sole: Maximizes the contact area between your boot and the ground.



urces: MSHA Instruction Guide Series - IG 43, Revised 2004, On-the-Job Training Module 17 Interview with Matthew Smith, EVP of Shoes for Crews SATRA Slip Resistance Guide: Safety, Protective and Occupational Footwear. QBE Insurance Issues Forum: Slips, Trips and Falls on the Level, February 2006, pg 5. Jon Lawrence and Isobel Williams. CIRIA Guide C652-Safer surfaces to walk on reducing the risk of slipping. 2006.