To perform our jobs, we need to move stone, rocks, and boulders. For over a century, blasting has been the best method for doing this. Blasting breaks rocks into sizes small enough for our equipment to handle.

When we blast, you could be injured or killed if you are in the wrong place. To ensure your safety, a BLASTER-IN-CHARGE carefully calculates a zone around the blast where rocks might land. This zone is called the BLAST AREA. Before a blast, we post guards at all entry points and stop all traffic going into the area. We clear out all people, equipment, and large animals, and we make sure that nothing and no one has strayed into the area. No one is permitted in the blast area when we shoot. That is why it is important for us to know where you are. That is why we ask you to sign in when you arrive.

Inside the blast area, debris from blasting travels fast. You won’t be able to duck it or outrun it. By placing yourself within the blast area during the time of the shot, you are placing yourself in a lot of danger.

However, even if you are not inside the blast area, be careful. FLYROCK is debris that travels or rolls outside the blast area. This does not happen often, but stray rocks have been known to land a half mile away. If you are that far from a blast, you can look to the sky. If you see material or objects in the sky, you should take cover fast. Safe cover is not behind a car’s windshield, and it is not beneath trees. Even if you are outside the blast area, stay alert and keep your eyes open.

Blasts are carefully controlled. Nothing will appear in the sky unless something has gone wrong. This event has not happened often, but we want you to be safe while on our site.

Our employees understand that blasting is serious business. The blaster will set off an early-warning signal at about 5 - 10 minutes before the blast, a final-warning signal shortly before the blast, and then an all-clear signal after the blast when it is safe. Our employees know the blast signals that we use and know what to do when they hear them. We want to make sure that you, our visitor on site, also know what to do when you hear our signals.

The hole in this tree was the result of a blast in Pennsylvania in 2002.

1. The early warning blast signal:

   When you hear this signal, the blasting process has begun. The holes have been loaded, the initiation system is tied-in, and the final security checks are being made. If you think you may still be inside the blast area, you need to get out immediately – if you know where “out” is, and if you know that you won’t have to travel past the blast area. If you don’t know for sure where the blast area is or how to get out, then you need to sound your car’s horn or shout and hope someone can hear you or see you.

2. The final blast warning signal:

   This signals that the blast is coming in a minute or so. If you are still in the blast area at this time, take cover and shout or sound your car horn and let people know you are there. Make your presence known and take shelter. Stay sheltered until the “all-clear” is signaled or until someone comes to get you. Even beyond a 1-minute warning, the blast can be stopped if someone is spotted in the blast area.

3. The all-clear signal:

   When the all-clear signal sounds, it is safe to return to the blast area. The all-clear signal may not happen right after the blast because the blaster-in-charge must inspect the area to make sure that all charges have detonated, all fumes are clear, and it is safe to return to the blast area. In rare cases, the all-clear signal may not be given for hours or even days until the blaster can ensure that the blast area is safe.

A miner and a visitor at a blast site in New Mexico thought that they had more time to protect themselves before the blast. But this blast was not well controlled. The visitor was hospitalized for months. The miner died at the scene.

The three signals are described here:
Under no circumstances should you try to see what is going on without the blaster's permission. Contact the mine management if you have questions. Blasting is safe only if you follow the rules. Every day is different.

Don't take blasting for granted!

This 1999 accident resulted in the death of a 34-year-old miner at a Pennsylvania mine. He was sitting in this truck over the hill from the blast area, guarding the road that led to the blast site.

For information about occupational safety and health topics contact NIOSH at:
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