



## A Few Things To Remember

If a blasting project is planned or performed near your property, take a close look at your house or business. You should investigate for cracks in walls, floors, and ceilings that already exist. These conditions result from the quality of initial construction, age of home, seasonal weather changes, wind, settling and everyday activities. Most property owners don't notice these conditions until after blasting has started. They are often mistaken for blasting damage.

The limits set for blasting noise and vibration are conservative values and below proven values where damage will not occur in structures.

The limits set in the GA Blasting Regulations are the result of years of study, testing and research by universities and the Federal Government. These levels have been documented in the US Bureau of Mines RI 8507 Report that is the primary source for determining proper blasting levels.

## The State Fire Marshal Office - What We Do

- Permitting and inspection of certain buildings for special hazards
- Regulate hazardous materials, including fireworks, LP gas and explosives
- Inspect manufactured housing during construction
- License fire protection systems
- Inspect elevators, escalators, amusement rides, carnivals and boilers
- Charged with statewide fire prevention education and fire investigations



## ▶ **FACTS ABOUT BLASTING**

**For Georgia Property Owners**



**Blasting** is a technically controlled, effective and safe way to break rock. Blasting is primarily used in construction and mining activities. It is an essential component in the production of construction aggregates, cement, power and other familiar materials used by everyone.



### What Explosives Are Used For Blasting?

It is a common misunderstanding that dynamite or gunpowder is used for most blasting activities. Engineered blasting agents, not dynamite account for 99% of explosive material used. (ANFO) Ammonium Nitrate mixed with fuel oil is the most common product. Pound for pound ANFO is a more effective explosive.

### What Is Involved in Blasting?

Individual holes are drilled in the rock to be fractured. A portion of each hole is filled with blasting agents. The top portion is filled with a non-explosive material usually sand and stone. The explosion is triggered by detonators that are designed to stage the blast between individual holes. The overall blasting event consists of several small individual blasts

separated by timed delays. The entire blast will typically last from a 1/4 to 1 second. The blast causes an expansion of gases that break the rock. The sand and stone in the top of each blast hole, referred to as stemming, keep the released gases in the rock for more efficient blasting results.

### Can You Feel The Blast?

It is possible, depending on your proximity to the blast site. The human body is fairly sensitive to unexpected noise and sound. Feeling the blast does not mean that damage has occurred. Inform the company in charge whether you have been startled or you have any concern related to the blasting activities.

### How Are Blasting Events Measured?

Seismographs and other devices are used to measure the vibration and air effects of blasting. These are normally arranged at key locations in proximity to the blast site. These machines record the ground vibration and noise generated by the blast with a high degree of accuracy. This information is used to confirm that the blast meets limits set in the regulations.

### What Records Do The Blasting Company Have To Keep?

The company is required to keep detailed records of each blast. These records contain the size, time, and location of the blast, the amount of explosives used, and the results of the seismograph monitoring.



### Georgia Regulations

The Georgia Commissioner of Insurance is responsible for establishing regulations to ensure the proper use of explosives and blasting agents. This is done through the State Fire Marshal who reports to the Insurance Commissioner.

The rules and regulations are found in Chapter 120-3-10 of the Fire Safety Commissioner Rule and Regulations. These regulations cover all blasting applications including construction, surface mining and underground mining.

These regulations can be found at: [www.oci.ga.gov/firemarshal/home.aspx](http://www.oci.ga.gov/firemarshal/home.aspx)

Other informative sites dealing with blasting activities include the following:

- > International Society of Explosive Engineers - [www.isee.org](http://www.isee.org)

- > Federal Highway Administration - Rock Blasting and Overbreak Control FHWA-41-92-001 - <http://www.fhwa.dot.gov/>

- > [US Bureau of Mines - RI8507 Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting](#)