



Blasting is a highly technical, prescribed and scientific process.

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As aggregate quarries supply the essential materials to build Texas, we take community concerns about blasting seriously

Texas aggregate companies – many of which are TACA members – supply the materials the state needs to build and maintain its infrastructure. Members adhere to scientifically sound mining methods, use advanced mining technologies, incorporate industry best practices and abide by stringent government regulations.

TACA and its member companies encourage a better understanding of the aggregate mining industry, which contributes to every Texan's quality of life. Here we address concerns regarding the highly technical, often misunderstood use of blasting, which is an important step in the aggregate production process. Blasting is the method of using explosives to reduce the size of solid rock formations for further processing.

When I hear a blast, it is startling because I am not prepared for it

Any loud and unexpected noise can be concerning. That is why it is considered best practice for quarries to send notifications to neighbors ahead of scheduled blasts. Most operators do provide regular communication to those who live near their facility. If you live near an aggregate quarry and have not received blast alerts, reach out and request that they keep you informed of when a blast is scheduled.

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I am concerned that the foundation of my home is being compromised

To ensure the maximum level of safety, blasting conducted at quarries is highly restrictive and regulated; there are many regulations and procedures to prevent injury to people and damage to property. Furthermore, the specialized, third-party companies that are retained to perform blasting services are required to go through a federal certification and registration process and retain permits with and follow the requirements of federal regulatory agencies. These include the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), the Mine Safety and Health Administration (MSHA) and the Office of Surface Mining (OSM). Prior to each blast, there is an extensive checklist of regulatory activities with which they must comply to ensure the safety of their workers and the public.

Are there any air quality permits required for blasting?

Due to MSHA safety regulations, it is not practical to measure the emissions from blasting because workers responsible for overseeing the blast must maintain safe observable distances. Additionally, a blast is a single emission event that only lasts for a short duration of time – usually a few seconds – and has negligible impact on average overall emissions. Emissions generated from blasting settle near and around the source, and do not predominantly generate fine particulate, which are those small particles (referred to as particulate matter 2.5 microns or smaller) that may cause health and environmental concerns.

Blasting involves drilling a hole and putting a dynamite stick in it

Blasting is a highly technical, prescribed and scientific process. To remove the maximum amount of rock with minimal impact, and to ensure the blast's reliability and predictability, there are a number of steps that must be taken. These include the sequencing and timing of a blast and analyzing the physical properties of the source material, including its hardness, fissures and faults. Blasting contractors utilize a variety of sophisticated tools, including modeling software and specialized equipment to design and implement the safest, most efficient blast for the unique characteristics of the source material.

I haven't heard a blast in weeks and now a big one has happened

Weather and atmospheric conditions can alter the blasting schedule or have a big impact on the noise or sound that you hear. Operators strive to blast when weather is optimal, avoiding days that are windy or gusty. Other conditions can have an impact on the schedule or frequency of blasting as well, including changing conditions within the aggregate formation or production schedule variability. During overcast days, low cloud cover conditions act as an acoustic sounder, helping to migrate the sound of the blast outward. Instead of dissipating evenly, you may experience a loud 'clap of thunder.' This may make the blast seem bigger than a previous one, when in fact it was the same size and duration. Although less likely, you may hear a blast on a clear day as well, depending on wind direction.

Is there a way for me to observe a blast at a rock quarry?

To alleviate community concerns, some quarries offer group tours when a blast is scheduled. TACA encourages all member companies to offer visits and to address any questions nearby residents have about the blasting process. These are usually great opportunities for neighborhood associations and community groups to learn more details about the processes and procedures that a quarry follows when blasting. Other helpful steps to create a productive dialogue include presentations and question and answer sessions about the blasting process.

About the Texas Aggregates & Concrete Association

The Texas Aggregates & Concrete Association (TACA) is the main resource for the aggregate, concrete, cement and other associated industries in Texas. The association represents its member companies by providing industry information to the public, media, policymakers and regulators; advocating for industry issues; ensuring member companies commit to conducting business with integrity, respect, transparency and honest communication; and creating industry training courses and materials that help members effectively manage their businesses.



Texas needs even MORE materials for its growing population

In just 10 years, Texas will require:

15-50 million
more tons of aggregate

3-10 million
more yards of ready-mix concrete

1-3 million
more tons of cement



By 2050, Texas will need:

124-179 million
more tons of aggregate

25-36 million
more yards of ready-mix concrete

7.5-11 million
more tons of cement

