

VIBRATION AND AIR BLAST LEVELS OF NATURAL PHENOMENA AND NORMAL ACTIVITIES COMPARED TO LEVELS OF BLASTING

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ABSTRACT

Blast vibration and air blast are commonly blamed for damages to residential as well as commercial structures. Mining and construction companies are often required to spend monies in court defending themselves even when vibration and air blast levels have been monitored by seismographs and are extremely low.

Part of the problem results because the general public, as well as some within our own industry, do not have an understanding of what peak particle velocity and decibel readings truly mean. In many homes, there are vibration levels that occur on a daily basis which far exceed those which result from many blasting jobs. This is also true with sound levels. These levels result due to normal activity within the home or by natural causes.

The purpose of this paper is to provide some factual information on vibration and air blast readings which are equal to or greater than what occur on blasting jobs. These readings are caused by either natural causes or normal environmental conditions in or near structures.

It is hoped that with this type of factual data available, people will realize that vibration and air blast levels from blasting cannot produce the damages which are claimed since they are living with these types of vibration and air blast levels on a routine basis from other causes.