

# WEST VIRGINIA CODE: §22-4-13

## **§22-4-13. Blasting restrictions; blasting formula; filing preplan; site specific blasting requirements; penalties; notice.**

(a) Where blasting of overburden or mineral is necessary, the blasting shall be done in accordance with established principles for preventing injury to persons and damage to residences, buildings and communities, and comply with the following:

(1) The weight in pounds of explosives to be detonated in any period less than an eight millisecond period without seismic monitoring shall conform to the following scaled distance formula:  $W = (D/50)^2$  (to the second power). Where W equals weight in pounds of explosives detonated at any one instant time, then D equals distance in feet from nearest point of blast to nearest residence, building or structure, other than operation facilities of the mine: Provided, That the scaled distance formulas need not be used if a seismograph measurement is located at the nearest protected structure is recorded and maintained for every blast. If access to the structure is refused by the owner of the protected structure, the measurement may be taken as close as practicable between the blast site and the protected structure. The peak particle velocity in inches per second in any one of the three mutually perpendicular directions shall not exceed the following values at any protected structure:

Seismograph Measurement Distance to the Nearest Protected Structure

1.25 0 - 300 feet

1.00 301 - 5,000 feet

0.75 5,001 feet or greater

The maximum ground vibration standards do not apply to the structures owned by the permittee and not leased to another person and structures owned by the permittee and leased to another person, if a written waiver by the lessee is submitted to the director before blasting.

(2) Airblast shall not exceed the maximum limits listed below at the location of any dwelling, public buildings, school or community or institutional building outside the permit area:

Lower frequency limit of measuring

system in Hz(+3dB) Maximum level in db

1Hz or lower-flat response\* 134 peak

2Hz or lower-flat response 133 peak

6Hz or lower-flat response 129 peak

c-weighted-slow response\* 105 peak dBC

\* only when approved by the director.

(3) Access to the blast area shall be controlled against the entrance of unauthorized personnel during blasting for a period thereafter until an authorized person has reasonably determined that:

(A) No unusual circumstances exist such as imminent slides or undetonated charges, etc.; and

(B) Access to and travel in or through the area can be safely resumed.

(4) A plan of each operation's methods for compliance with this section (blast delay design) for typical blasts which shall be adhered to in all blasting at each operation, shall be submitted to the Division of Environmental Protection with the application for a permit. It shall be accepted if it meets the scaled distance formula established in subdivision (1) of this section.

(5) Records of each blast shall be kept in a log to be maintained for at least three years, which will show for each blast the following information:

(A) Date and time of blast;

(B) Number of holes;

(C) Typical explosive weight per delay period;

(D) Total explosives in blast at any one time;

(E) Number of delays used;

(F) Weather conditions;

(G) Signature of operator employee in charge of the blast;

(H) Seismograph data; and

(I) Date of seismograph calibration.

(b) Blasting within one thousand feet of a protected structure shall have a site specific blast design which may vary from the requirements of this section as is approved by the director. The site specific blast plan shall limit the type of explosive and detonating equipment, the size, timing and frequency of blasts to: Prevent injury to persons; prevent damage to public and private property outside the permit area; prevent adverse impacts to any underground

mine; and to minimize dust outside the permit area: Provided, That for quarries permitted pursuant to section twenty-seven, site specific blasting plan will not be required if not required as part of its existing blasting plan, unless the director determines that based on valid local complaints, the local conditions require a site specific blasting plan.

(c) All assessments as set forth in this section shall be assessed by the director, collected by the director and deposited with the treasurer of the State of West Virginia, to the credit of the quarry reclamation fund.

(d) The director shall propose legislative rules pursuant to article three, chapter twenty-nine-a of this code which shall provide for a warning of impending blasting to the owners, residents or other persons who may be present on property adjacent to the blasting area.

(e) Where inspection by the Division of Environmental Protection establishes that the scaled distance formula or the seismograph results or the approved preplan are not being adhered to, the following penalties shall be imposed:

(1) For the first offense in any one permit year under this section, the permit holder shall be assessed not less than \$500 nor more than \$1,000;

(2) For the second offense in any one permit year under this section, the permit holder shall be assessed not less than \$1,000 nor more than \$5,000;

(3) For the third offense in any one permit year under this section or for the failure to pay any assessment herein above set forth within a reasonable time established by the director, the permit shall be revoked.