

**O8-7****EVALUATION SAFETY BLASTING WEIGHTS AND DISTANCES IN THE BLASTING OPERATION AT DAM SITES****SEYHUN KARABIBER**

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Seismologist, mining and explosive engineers have attempted to understand and interpret the nature of ground vibration induced by blasting so that its can be minimised. The elimination and control such vibration is becoming more and more important.

During excavation there were factors which mainly influenced blast vibration levels:

- The geological structures of the rock mass
- The required shape of excavated profiles surrounding the blast source
- The extent and confinement of explosive charge used.

The peak particle velocity is the maximum vibration velocity recorded at a particular location and is used as the vibration level for assessing the worst vibration effects at any particular distance from the source of the blast.

The form of this equation to determine peak particle velocity is

$$V=kW^m R^{-n}$$

V= Peak particle velocity

K= Ground transmission constant

m,n= Empirical constant based primarily on the over geology between the explosion and receiving sites

R= The distance between the explosion and receiving sites.

Elastic waves vibrations create great problems for grout curtain at dam sites, on clay core at the dam body, contact and consolidation grouting in diversion tunnel. The problem of predetermining the quantity of explosive, which may be used without damaging the existing grout curtain at dam, sites. A widely used method of damage assessment at present is the measurements of PPV's (peak particle velocity) to establish damage criteria near the perimeter of the excavation. The paper summarises the numerical results of the field work.