

SCOPE AND NATURE

To establish a uniform policy for blasting on and adjacent to Amtrak's Right-of Way.

SPECIAL REFERENCE

Note: The former number for this engineering practice is 208.

SPECIAL MATERIALS

N/A

PROCEDURE

Blasting is restricted on and adjacent to Amtrak's Right-of-Way. Approval to blast must be given by the Assistant Vice President or Chief Engineer of the appropriate discipline.

Requests for approval to blast must provide the information requested below and conform to all requirements listed:

1. Provide a site plan defining the blast area and location of nearest or other related structure.
2. Provide a soil and rock profile of the blast zone.
3. Limit the peak particle velocity to two inches per second, except for certain sensitive areas, such as tunnels, bridge piers and abutments, oilostatic duct lines, central instrument houses and underpinning. For these sensitive areas, limit maximum peak particle velocity to between 0.5 inches per second and one inch per second, depending on the facility.
4. Maintain a scale distance of 50 when maximum peak particle velocity is two inches per second. Maintain an initial scale distance of 60 when maximum peak particle velocity is limited to a range of 0.5 inches per second to one inch per second. This initial scale distance may be adjusted to 50 after the initial blast, if conditions permit.

$$\text{Scale distance} = \frac{\text{Distance from blast to structure (in feet)}}{\sqrt{\text{Weight of explosives per delay (in pounds)}}}$$

5. Use a non-electric detonation system whenever possible.
 - a. If electric caps are used, a check must be made for stray currents, induced current and radio frequency energy to ensure that this hazardous, extraneous electricity is at an acceptable level.

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- b. Amtrak uses two-way radios for trains control. The radios operate at 160 MHz range, and cannot be turned off during the charging and priming operation.
- 6. Provide an open face for maximum relief for burden.
- 7. Obtain the services of a qualified vibration and blasting consultant to monitor all blasting activity.
- 8. All blasting operations must be coordinated with Amtrak's Senior Project Engineer on the site.
- 9. A pre-blast and post-blast survey may be obtained. The survey will include photographs and an inspection of all nearby, Amtrak owned and other facilities. The survey will be used to determine any changes that occurred due to the blasting operation.

REPORTING

N/A

RESPONSIBILITY

Area Construction Engineer	Comply with procedure
Senior Director Construction	Assure compliance with procedure
Asst. Vice President Engineering or Chief Engineer, Structures	Approval to Blast Required