CITY OF CARLSBAD

ENGINEERING DEPARTMENT POLICY

NUMBER: 15	**SUBJECT:** BLASTING
EFFECTIVE: 4/3/92	**APPROVED BY:**
SUPERSEDES:	LLYOD B. HUBBS, CITY ENGINEER

PURPOSE

The purpose of this policy is to ensure that the public health and safety is maintained by establishing minimum requirements for blasting operations that are performed within the City of Carlsbad.

DEFINITIONS

Blasting Operation Blasting operation shall mean any use of an explosive device or explosive materials to destroy, modify or remove any obstruction or material of any kind. No blasting operation shall be performed without a valid blasting permit.

Blasting Permit Blasting permit shall mean a written document signed by the City Engineer or his authorized representative giving an approved blaster permission to blast at a specific site within the City of Carlsbad under the terms and conditions specified herein.

Minor Blasting Minor blasting is a blasting operation that meets all of the following criteria:

1. Quantity of material to be blasted does not exceed one hundred (100) cubic yards.
2. Bore hole diameter does not exceed two (2) inches.
3. Hole depth does not exceed twelve (12) feet.
4. Maximum charge weight does not exceed eight (8) pounds of explosives per delay.
5. The initiation of each charge will be separated by at least ten (10) milliseconds.
6. The total charge weight shall not exceed the weight given by the following equation:

   $W = (D/D_s)^2$ where

   W = Total Weight of Explosives in Shot
   D = Distance from Blast Site to Nearest Structure
   D_s = Scale Distance Factor

D	D_s
0-300 ft*	50
301-4,999 ft.	55
5,000 ft<	65

   *Maximum Total Charge weight of Explosives not to exceed 30 lbs.

Major Blasting Major blasting is all blasting operations that do not fall under the category of minor blasting.

Charge Weight Charge weight shall include the weight of all explosives and other materials, such as fertilizer, used to enhance the force of the explosive.

BLASTING PERMIT REQUIRED

No blasting operations shall occur without a valid blasting permit. Blasting permits will be issued only to qualified blasters. A Blaster will be considered qualified upon presentation to the City's Engineering Department of a valid blasters license issued by the California Division of Industrial safety and a valid explosive permit issued by the Sheriff of San Diego County. Application for a blasting permit shall be made at the City's Engineering Department. There is no fee for this permit.

INSURANCE REQUIRED

Before an approved blaster can be issued a blasting permit, the City must be furnished with a certificate of insurance for general liability issued by an insurance company authorized to do business in the State of California. The insurance company shall be acceptable to the City as to size and financial rating. Said insurance shall name the City of Carlsbad as additionally insured. The minimum amount of coverage shall be $1,000,000.00 for property damage and $1,000,000.00 for bodily injury per each occurrence.

NOTIFICATION REQUIRED

Before any blasting operations can proceed the following notifications shall be given:

(A) The owner/developer shall give a one time written notice to all residences located within 600 feet of any potential blast location. Such notice will be given immediately after the issuance of a building permit, grading permit or right-of-way permit if it is known that blasting will likely be required. If during the course of a project it is determined that blasting is necessary,said notice will be given a minimum of 72 hours in advance of blasting. The written blasting notice will state when blasting operations will begin. how long they will continue, and the approximate frequency. The notice will also give the name and phone number of a responsible and responsive party of the blaster who can answer any questions that the public may have. The written notice shall also state that all complaints of blasting caused damages shall be made in writing to the blaster and that said blaster will respond within 10 days of receipt of same.

(B) In addition to the notice given under (A) above, a notice by the blaster shall be given to all residences within 600 feet of the blast area 24 hours prior to blasting.

(C) The blaster shall notify the City's Police and Fire Departments of any scheduled blast at least 1 hour prior to blasting.

PRE-BLAST INSPECTION REQUIRED

Adequate precautions shall be taken to safeguard property during blasting operations. These precautions shall include but not be limited to:

(A) The blaster shall cause an approved blasting inspector to inspect all structures (including mobile homes) within 300 feet of the blast site before blasting operations begin, unless inspection is waived by the owner and/or occupant. The purpose of the inspection shall be only for determining the existence of any visible or reasonably recognizable pre-existing defects or damage in any structure. If the owner and/or occupant declines to have his or her structure surveyed the inspector shall request the owner and/or occupant to sign a waiver, supplied by the inspector, stating that he or she declined to permit a pre-blast inspection. Refusal to allow inspection or sign a waiver shall constitute an automatic waiver, which shall be reported as such to the owner and/or occupant and to the City's project inspector prior to blasting.

(B) Complete pre-blasting inspection reports identifying all findings and inspection waivers shall be signed by the blasting inspector. A copy of the pre-blast inspection reports shall be submitted to the City Engineer upon demand. If a complaint of alleged damage due to blasting operations is raised by an owner and/or resident, a copy of the pre-blast survey or waiver shall be sent immediately to the complaining owner and/or resident if he or she is within 300 feet of the blast site.

POST-BLASTING INSPECTIONS REQUIRED

The blaster shall cause the approved blasting inspector to conduct post-blast inspections upon receipt of a written complaint of property damage due to the blasting operations from any owner and/or resident. This inspection shall be completed within 10 days of receipt of the written complaint. The inspector shall compile a written report of this inspection which shall include one of the following statements based on his professional opinion.

1. The damage was not caused by the blasting operation.
2. The damage was caused by the blasting operation.

A copy of this report shall be sent to the complainant and the City Engineer within 10 working days of the inspection date. The blaster shall commence and diligently prosecute any remedial work required due to blasting damage within 30 days of the post blast inspection. If the complainant disputes the post-blasting inspection report, the blaster shall immediately provide the complainant, in writing, with the blasters liability insurance carrier so that a claim may be tendered.

SEISMIC MONITORING REQUIRED

All major blasting operations shall be monitored by the blaster utilizing an approved seismograph located at the nearest structure within 600 feet of the blast site. All daily seismograph reports shall be maintained by the blaster. Copies of the seismic reports shall be filed with the City Engineer upon demand within 5 workings days.

BLASTING HOURS

Blasting shall be permitted between the hours of 9:00 am and 4:00 pm, Monday through Friday, excluding City observed holidays.

ACCESS BY CITY PERSONNEL REQUIRED

The blaster shall permit representatives from the City to inspect the blast site and blasting agents at any reasonable time.

RIGHT-OF-WAY PERMIT REQUIRED

If blaster is required to temporarily stop or reroute traffic for any reason, he shall first obtain a valid right-of-way permit from the City's Engineering Department.

ADDITIONAL APPLICABLE REGULATIONS

In addition to the requirements of this policy all applicable provisions of Title 8 Article 8 of the California Industrial Safety Construction Orders, the National Fire Protection Association Code for the Manufacture, Transportation, Storage and Use of Explosive Materials, and all requirements of any governing agency having jurisdiction shall apply.

DENIAL OF BLASTING PERMIT

The City Engineer may refuse to issue a blasting permit when, in his opinion, the proposed blasting operation constitutes a hazard to the public.

REVOCATION OF BLASTING PERMIT

The City Engineer may revoke a blasting permit issued to any blaster who, in the opinion of the City Engineer, has:

A. conducted or been responsible for careless or reckless blasting operations,

B. failed to observe any standard safety orders or other applicable rules and regulations;

C. failed to adhere to any provision of the blasting policy or permit.