



Riverside County Fire Department

Blasting Guideline OFM-29

PURPOSE

The Riverside County Fire Department Office of the Fire Marshal has prepared this policy to provide guidance regarding blasting requirements within the Riverside County Fire Department jurisdiction and Contract Cities. Blasting operations within the jurisdiction of Riverside County Fire Department and Contract Cities shall be conducted by approved, competent operators familiar with the required safety precautions and the hazards involved. Blasting operations shall be done in accordance with the California Fire Code (CFC); California Code of Regulations (CCR), Title 19, Chapter 10, Subchapter 4, Article 6; and NFPA 495.

SCOPE

This guideline is applicable to all blasting companies and operators that will operate within the jurisdiction of Riverside County Fire Department and their Contract Cities. Blasting companies and operators will be required to obtain approvals and permits from all local departments and approvals prior to any blasting operations. Violations of this policy is a felony per California Health and Safety Sections 12101, 12303 and 12305.

GENERAL REQUIREMENTS

The following items will be required for all blasting permits.

1. Obtain a permit through Riverside County Fire Department Office of the Fire Marshal or Contract City per California Fire Code. Please refer to page 3 for submittal requirements.
2. Blasting Company is required to obtain and provide the following permits/certifications/clearances. Please see Item #3 on page 3 "Submittal Requirements" for more details.
3. Notification to the Riverside County Fire Department Emergency Command Center (ECC) and Public Affairs and Community Education Bureau (PIO) 24 hours prior to any blasting will be completed by OFM Staff.
4. Notification to the respective Riverside County Fire Department - Fire Marshal's Office is required at least 48 hours prior to any blasting.
5. Contact respective Riverside County Fire Department - Fire Marshal's Office to coordinate OFM pre-inspection and stand-by to be on site prior to any blasting. OFM management will determine the need for personnel standby as needed.
6. No person(s) shall use or handle explosives while under the influence of any intoxicants (CA Title 19.)
7. The use and handling of explosives is restricted to permittees, their employees, and authorized representatives who shall be at least 21 years of age (CA Title 19.)
8. Smoking shall not be permitted while explosives are being used or handled, and no one within 50-feet of explosives shall possess matches, lighters, open light or other fire or flame (CA Title 19.)
9. Where blasting is conducted in the vicinity of any type of utility lines, flammable liquids or right of ways, the blaster will be required to notify the utility representatives 24-hours in advance of any blasting. Written approval is required to be submitted with required 48-hour notice to the OFM. (CFC) (CA Title 19)
10. Ground vibrations on any axis shall not exceed the limitations specified in NFPA 495 at the location of any building or structure. When blasting is not monitored with a blasting seismograph, the operation

- shall comply with the scaled distance factors at the nearest building or structure as shown in NFPA 495. Seismograph reports shall be submitted to the OFM (upon request) post any blasting operation.
11. All blasting operations shall be conducted during daylight hours, except by special written permissions from the fire chief (CA Title 19).
 12. Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent power lines, sand or dust storms, or other sources of extraneous electricity. These precautions shall include:
 - The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of an electric storm, or sand or dust storm (CA Title 19).
 - The posting of signs warning against the use of mobile radio transmitters on all access roads between 1,000 feet and 3,000 feet of the blasting operations. The sign shall be in contrasting 8-inch letters on a white background and shall read "BLASTING AREA – NO RADIO TRANSMITTING". Signs shall be displayed only at time of blasting (CA Title 19).
 - No electric blasting shall be done under overhead electric lines, or at such distance where it is possible for the blasting line to be blown in contact with any electric line unless the power in the energized line is shut-off or unless shot blow deflectors, hold downs, mats, logs, or other material are placed over the charge to confine the blast (CA Title 19).
 - When blasting near overhead electric lines, and when placing the lead and leg wires near these lines, the lead and leg wires shall not be placed parallel to the power line, and they shall be securely anchored (CA Title 19).
 13. Precautions shall be taken to prevent accidental discharge of electric detonators from currents induced by radar and radio transmitters, lightning, adjacent power lines, dust and snowstorms, or other sources of extraneous electricity. Such precautions are listed in NFPA 495.
 14. After loading for a blast is completed and before firing, excess explosive materials shall be removed from the area and returned to the proper storage facilities (NFPA 495).
 15. The blaster shall supervise the connecting of the blastholes and the connection of the load-line to the power source or initiation point. Connections shall be made progressively from the blasthole back to the initiation point. Blasting lead lines shall remain shunted (shorted) and shall not be connected to the blasting machine or other source of current until the blast is to be fired (NFPA 495).
 16. Cap and fuse shall not be used to initiate blasts in congested areas, or on or adjacent to highways open to traffic (NFPA 495).
 17. An adequate warning signal approved by the fire inspector must be given prior to the blast being fired (NFPA 495).
 18. After the blast, the following procedures shall be observed per NFPA 495.
 - No person shall return to the blast area until allowed to do so by the blaster in charge.
 - The blaster shall allow sufficient time for smoke and fumes to dissipate and for dust to settle before returning to or approaching the blast area.
 - The blaster shall inspect the entire blast site for misfires before allowing other personnel to return to the blast area.
 19. Where a misfire is suspected, all initiating circuits shall be traced, and a search made for unexploded charges. Where a misfire is found, the blaster shall provide proper safeguards for excluding all personnel from the blast area. Misfires shall be reported to the fire inspector on scene with the Riverside County Fire Department Office of the Fire Marshal or Contract City immediately. Misfires shall be handled under the direction of the person in charge of the blasting operation in accordance with NFPA 495.
 20. Explosive materials shall not be abandoned, but shall be returned to proper storage. (CA Title 19)

SUBMITTAL REQUIREMENTS

Plans required with permit application:

1. Include a site map with the permit application and clearly indicate the blasting areas and the following information:
 - Any structures and distances from the blasting site.
 - Nearby railway or roads.
 - Barricade locations and/or road closures for site security.
 - Location and distances from any utilities (water, gas, or electrical)
 - Location of any required signage to be posted.
 - Location of blasting seismograph devices (if no seismograph device used provide ground vibration calculations in accordance with NFPA 495.)
 - Location of any onsite storage or culturally sensitive locations.
2. Fire The following Fire Department Notes shall be provided on the submitted plan verbatim:
 - All blasting operations shall be in accordance with the California Fire Code, California Title 19, Health & Safety Code, and NFPA 495.
 - The Riverside County Fire Department shall be contacted 48 hours before any proposed blasting operations are conducted.
 - If deemed necessary by Riverside County OFM Supervision, on-site OFM Staff is to be present to witness blasting operations.
 - Blasting operations are to only take place during approved date and times.
 - Means of site notification shall be provided before and after any blasting operation.
 - A minimum one back-pack type fire extinguisher of at least 4-gallon capacity or one round point shovel with minimum overall length of 46" shall be provided onsite.
 - Any site or blast modifications shall be approved by the Fire Department.
3. Blasting Company is required to obtain and provide the following permits/certifications/clearances:
 - Copy of Blaster's Photo ID or all proposed Blasters.
 - Copy of Federal Explosives License issued by the US. Department of Justice (DOJ)/Bureau of Alcohol, Tobacco, Firearms, and Explosives.
 - Copy of Permit/License of eligibility through OSHA's Department of Industrial Relations Division.
 - Clearance from Riverside County/Partner City Transportation or Public Works Division (if necessary.)
 - Certificate of Insurance A current Certificate of Insurance will be required to include, but not limited to one million dollars (\$1,000,000.00) naming county as a co-insured for protection against claims of third-party personal injuries, wrongful deaths and property damage. The County of Riverside Fire Department, 4080 Lemon Street, 10th Floor, Riverside, CA. 92501, its officers, employees, agents and volunteers shall be named as additional insureds.
4. Data specification sheets shall be provided for all equipment and explosives to be used for blasting.
5. Documentation of written approval from utility company(ies) (water/gas/electrical) if applicable.
6. Vehicles to be used in the transportation/storage of explosives must be listed on the permit, including make, model, year and license number.
7. Proposed blasting times and timeframes.
8. Indicate that all explosive containers are either authorized containers or Class II magazines for taking detonators and other explosives from storage magazines to the blasting area (CA Title 19).
9. The application shall include a description of the storage arrangements of explosives, amount of storage and method of detonation. If explosives are to be stored at the project site, please include location on the site plan.

10. Before blasting is performed, the Riverside County Fire Department Office of the Fire Marshal or Contract City shall be contacted for an initial site inspection for each separate location if required by OFM Management.