

**460. DEPARTMENT OF MINES
CHAPTER 25. OKLAHOMA EXPLOSIVES AND BLASTING RULES AND
REGULATIONS**

SUBCHAPTER 1. GENERAL REQUIREMENTS

460:25-1-9. Availability of records. [REVOKED]

~~Records required by this Chapter to be made available to the public shall be retained at the offices of the Oklahoma Department of Mines, 2915 North Classen Blvd., Suite 213, Oklahoma City, Oklahoma 73106.~~

SUBCHAPTER 7. PERMIT INFORMATION

460:25-7-2. Public notices of filing of permit application. [AMENDED]

A permit application shall be posted at the principal office of the Oklahoma Department of Mines at the ~~Oklahoma City Office, located at 2915 North Classen Blvd., Suite 213, Oklahoma City, Oklahoma 73106~~ when filed with the Department. The posted permit application, which will serve as public notice, shall contain, at a minimum, the following information:

- (1) The name and business address of the applicant;
- (2) Verification of application;
- (3) Blaster's state certificate number with issuance date and expiration date; and
- (4) Copy of the certificate of blasting.

SUBCHAPTER 13. PERFORMANCE STANDARDS

460:25-13-5. General requirements. [AMENDED]

- (a) Each certified blaster shall comply with all applicable State, Federal, and Local Laws in the use of explosives.
- (b) All blasting operations shall be conducted by experienced, trained and competent persons who understand the hazards involved. Each person responsible for blasting operations shall possess a valid certificate as required by 63. O.S. (1995), Section 460:25-13-6.
- (c) Blasting certification shall be carried by the blaster or shall be on file at the blasting area during the blasting operation.
- (d) A blaster and at least one other person shall be present at the firing of any and all blasts.
- (e) The blaster shall permit only authorized and qualified persons to handle and use explosives.
- (f) Smoking, firearms, matches, open flame lamps, and other fires, flame or heat producing devices and sparks shall be prohibited in or near explosive magazines or while explosives are being handled, transported or used.
- (g) No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors, narcotics, or other dangerous drugs.
- (h) All explosives shall be accounted for at all times. Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them. The employer shall maintain an inventory and use record of all explosives. ATF shall be notified of any loss, theft, or unauthorized entry into a magazine.
- (i) No explosives or blasting agents shall be abandoned.
- (j) No fire shall be fought where the fire is in imminent danger of contact with explosives. All employees shall be removed to a safe area and the fire area guarded against intruders.

(k) When blasting is done in congested areas or in proximity to a structure, railway, or highway, or any other installation that may be damaged, the blaster shall take special precautions in the loading, delaying, initiation, and confinement of each blast with mats or other methods so as to control the throw of fragments and not to exceed the peak particle velocity limits requirements of 460: 25-1319(a) at a structure.

(l) Employees authorized to prepare explosives charges or conduct blasting operations shall use every reasonable precaution including, but not limited to, visual and audible warning signals, flags, or barricades, to ensure employee safety.

(m) Blasting operations above ground shall be conducted between sunrise and sunset.

(n) Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent power lines, dust storms, or other sources of extraneous electricity. These precautions shall include:

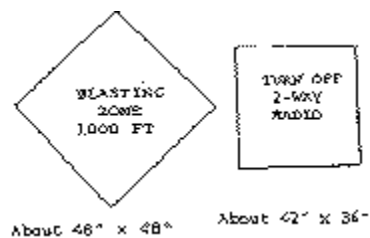
(1) Detonators shall be short-circuited in holes which have been primed and shunted.

(2) The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of an electric storm;

(3) Signs and warnings shall be done in the following manner:

(A) The prominent display of adequate signs, warning against the use of mobile radio transmitters on all roads within 1,000 feet of blasting operations. Whenever adherence to the 1,000-foot distance would create an operational handicap, this distance may be modified so long as the modification is adequately designed in compliance with paragraph (5) of this subsection to prevent any premature firing of electric blasting caps.

(B) Specimens of signs which would meet the requirements of Section 460: 25-138(p) are the following:



(4) Ensuring that mobile radio transmitters and cellular phones which are less than 100 feet away from electric blasting caps, in other than original containers, shall be deenergized and effectively locked;

(5) Compliance with the recommendations of The Institute of the Makers of Explosives with regard to blasting in the vicinity of radio transmitters as stipulated in Radio Frequency Energy-A Potential Hazard in the Use of Electric Blasting Caps, IME Publication No. 20, March 1971.

(o) Empty boxes and paper and fiber packing materials, which have previously contained high explosives, can be destroyed by burning at an approved location on site.

(p) Explosives, blasting agents, and blasting supplies that are obviously deteriorated or damaged shall not be used. Contact the manufacturer for instructions.

(q) Delivery and issue of explosives shall only be made by and to authorized persons and into authorized magazines or approved temporary storage or handling areas.

(r) Blasting operations in the proximity of overhead power lines, communication lines, utility services, or other services and structures shall not be carried on until the operators and/or owners have been notified and measures for safe control have been taken.

(s) The use of black powder for blasting shall be prohibited.

(t) All loading and firing shall be directed and supervised by a certified blaster.

~~(u) Buildings used for the mixing of blasting agents and water gels shall conform to the requirements of this section.~~

~~(1) Building shall be of noncombustible construction or sheet metal on wood studs.~~

~~(2) Floors in a mixing plant shall be of concrete or of other non absorbent materials.~~

~~(3) All fuel oil storage facilities shall be separated from the mixing plant and located in such a manner that in case of tank rupture, the oil will drain away from the mixing plant building.~~

~~(4) The building shall be well ventilated.~~

~~(5) Heating units which do not depend on combustion processes, when properly designed and located, may be used in the building. All direct sources of heat shall be provided exclusively from units located outside the mixing building.~~

~~(6) All internal combustion engines used for electric power generation shall be located outside the mixing plant building, or shall be properly ventilated and isolated by a firewall. The exhaust system on all such engines shall be located so any spark emission cannot be a hazard to any materials in or adjacent to the plant.~~

460:25-13-19. Blasting standards. [AMENDED]

(a) In all blasting operations, except as hereinafter otherwise provided, the maximum safe peak particle velocity shall not exceed at the immediate location of any dwelling house, public building, school, church, commercial or institutional building, the following:

(1) Distance of structure from a blast 0-300 feet 2.0"/sec PPV ~~(see Appendix A for allowable pounds per delay).~~

(2) Distances of structure from blast 301 feet and beyond 1.0"/sec PPV initially until the blaster can determine from a history of blasts that a preponderance of frequencies, 40 HZ or above, are high enough to justify the 2.0"/sec PPV limit.

(b) This ground velocity limit is not construed to mean property owned, leased, or contracted by the blaster or blaster's company or property on which the owner gives a written waiver.

(c) No two (2) consecutive subcharges within any charge shall be separated by a delay time of less than eight (8) milliseconds.

~~(d) A table to be used for determining weight of explosives to be used on a single delay is in Appendix A of this Chapter.~~

~~(e)~~(d) The standard table for the maximum charge per delay shall be generated by the formula: $W = (D/\text{scaled distance})^2$; Where W is the weight of explosive in pounds and D is the distance from the charge to the nearest dwelling house, public building, school, church, commercial or institutional building in feet. The scaled distance factors allowed for various distances from the blast site, the table in Subsection (h) will be used. On sites where the Department decides it necessary to comply with the provision of the law this formula may be altered.

~~(f)~~(e) For the purpose of well shooting below 100 feet, the table shall be generated by the formula: $W = (D/50)^3$; Where W is the total weight of explosives in the hole and D is the distance from the charge to the nearest dwelling house, public building, school, church, commercial, or institutional building.

~~(g) The duration of the blast shall not exceed 1,000 milliseconds (1 second). If special conditions occur requiring a blast design which exceeds the 1,000 millisecond limit, the Department may alter the limit upon a review of the blasting plan.~~

~~(h)~~(f) Scaled Distance factors allowed for various distances from blast site:

(1) 0 to 300 ft. from blast site-Use scaled distance factor of 50 without seismic monitoring.

- (2) 301 to 5,000 ft. from blast site - Use scaled distance factor of 55 without seismic monitoring.
- (3) 5,001 ft and beyond from blast site - Use scaled distance factor of 65 without seismic monitoring.
- ~~(i) For distances less than 300 feet use the table in Appendix A.~~

SUBCHAPTER 15. STATE INSPECTION

460:25-15-5. Availability of records. [REVOKED]

- ~~(a) Copies of all records, reports, inspection materials, or information obtained by the Department under Oklahoma Statute, Title 63, and this Chapter shall be made immediately available for examination upon request to the public, except that the Department may refuse to make available:~~
 - ~~(1) Investigatory reports compiled for law enforcement purposes; and~~
 - ~~(2) Information not required to be made available under subsection (c) of this Section.~~
- ~~(b) Copies of documents and information required to be made available under (a) of this Section shall also be provided for examination at the Department of Mines in Oklahoma City.~~
- ~~(c) In order to protect preparation for hearings and enforcement proceedings, the Department may designate for special handling, investigative and enforcement reports and other such materials.~~

APPENDIX A. TABLE TO BE USED FOR DETERMINING WEIGHT OF EXPLOSIVES TO BE USED ON A SINGLE DELAY [REVOKED]

TABLE TO BE USED FOR DETERMINING WEIGHT OF
EXPLOSIVES TO BE USED ON A SINGLE DELAY

DISTANCE-FT (Scaled Distance 50)	WEIGHT-LBS.	DISTANCE-FT (Scaled Distance 55)	WEIGHT-LBS.
5-10	1/8	350	40
11-15	1/4	400	53
16-20	1/2	500	83
21-25	3/4	600	119
26-30	1.00	700	162
40	2.25	800	212
50	3.50	900	268
60	4.75	1000	331
70	6.00	1100	400
80	7.25	1200	476
90	8.50	1300	559
100	9.75	1400	648
110	11.0	1500	744
130	13.5	1600	846
150	16.0	1700	955
170	18.5	1800	1071
190	21.0	1900	1194
210	23.5	2000	1322
230	26.0	2500	2066
250	28.5	3000	2976
270	31.0	3500	4050
290	33.5	4000	5290
300	34.75	5000	8265

DISTANCE is the distance to the nearest house, public building, school, church, commercial or institutional building in feet.

WEIGHT is the maximum weight of explosives to be used on a single delay permit of 8 milliseconds or greater.

Less than five feet, the total charge should not exceed 1/8 lb.

For distances greater than 5,000 feet not included in the table use the formula:
weight = (distance/65)²