

Chapter 15.40 - ~~EXPLOSIVE MATERIALS~~BLASTING

Sections:

15.40.010 - Definitions—Adoption by reference.

- A. The definitions set forth in Section 296-52-417 of the Washington Administrative Code, and any amendments thereto, are adopted by reference.
- B. The definitions set forth in the ~~Uniform currently adopted International~~ Fire Code ~~_Article 77, as pertaining to explosives and blasting~~Explosive Materials, and any amendments thereto, are adopted by reference.
- C. The definitions set forth in National Fire Protection Association 495, Explosive Materials Code, and any amendments thereto, are adopted by reference.
- D. Whenever any conflict exists between definitions in the referenced codes, the most restrictive definition shall apply. Whenever any conflict exists between the substantive provisions of this chapter and those of the above-referenced codes, the more restrictive provision shall apply.

(Ord. 2267 § 1, 2000)

15.40.020 - Permit required.

- A. No company or individual shall be in possession of explosive materials, or conduct an operation or activity requiring the use of explosive materials, or perform, order or supervise the loading and firing of explosive materials without a current and valid blasting permit issued by the city.
- B. ~~Explosive-Blasting~~ materials shall not be transported, sold, given, delivered or transferred to anyone in the city not in possession of a valid blasting permit.
- C. A blasting permit is required for every individual project requiring blasting.
- D. A permit issued under this chapter to any person, company or corporation is nontransferable to any other person, company or corporation and shall be issued for a period not to exceed one year (twelve months from the date of issuance) subject to annual review for extensions.
- E. All federal, state, county and city laws and regulations applicable to obtaining, owning, transporting, storing, handling and using explosive materials shall be followed and be a condition of all blasting permits issued by the city.
- F. Blasting permits will be subject to review and approval by the fire chief and public works director, or their designees.
- G. The city shall have the power and authority to limit the level of blasting and, after examining all of the pertinent circumstances surrounding the proposed blasting, if it is deemed to be in the public interest, may then refuse to issue such permit or, in the case of a previously issued permit, may suspend or revoke the permit

(Ord. 2267 § 2, 2000)

15.40.030 - Application—Contents.

The city shall have power and authority to issue a permit for blasting but before doing so shall require the person, company or corporation to whom the permit is to be issued to file an application, which shall include the following:

- A. A completed application form provided by the city specifying the name and address of the person, company or corporation applying for the permit and the name and address of the blaster or of the person who will actually supervise the blasting;
- B. Evidence of A-current licenses issued to one or more individuals employed in the blasting work including but not limited to all applicable state licenses perand valid Certificate of Possession for Explosives issued by the Washington State Fire Marshal's Office WAC 296-52-61005 and a federal license as issued by the ATF. to one or more individuals employed in the work for which the blasting permit is sought;
- C. A transportation plan as hereinafter provided;
- D. A blasting plan as hereinafter provided;
- E. A traffic control plan as hereinafter provided;
- F. A pre-blast notification plan as hereinafter provided.
- G. Applications documents as submitted by the Permittee shall include language that states: The Permittee shall defend, indemnify and hold the city, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees arising out of or in connection with activities or operations performed by the Permittee or on the Permittee's behalf out of the issuance of this Permit, including the procurement of adequate insurance as required by the City, except for injuries and damages caused by the sole negligence of the City.

(Ord. 2267 § 3, 2000)

15.40.040 - Fees.

- A. A-ermit feeBlasting permit fees are pursuant to the current fee schedule as adopted by the City Council.
- B. Blasting permits -deposit, are valid for a maximum twelve-month period, as per the fee schedule established by the City Council per Resolution, will be assessed for each permit issued and extension thereafter. Extensions or renewal permits are permitted upon approval of the fire chief or his/her designee, and require an updated application and payment of new application fees.
- BC. The philosophy underlying the charges imposed for blasting permits is designed to lower the amount of property taxes used to process applications and permits, by charging the cost and providing the service directly to the person utilizing the service.
- C. If the actual costs exceed the permit fee, the applicant will be notified and will receive an invoice for the additional charges. That invoice must be paid within ten days of the date of notification or the city shall discontinue processing the application or in the case of an already issued blasting permit, shall suspend the effectiveness of the blasting permit under the invoice is paid in full. The city shall not issue final approvals or building permits until all blasting fees including additional charges are paid.
- D. Approved variance from standard hours of operation (see 15.40.90) may be subject to additional inspection fees per the current established fee schedule.

(Ord. 2267 § 4, 2000)

(Ord. No. 2714, § XVI, 12-1-2014)

15.40.050 - Liability insurance required.

- A. ~~The city, permittee shall procure and maintain for the duration of the permitted operation, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder the permittee, their agents, representative, employees or subcontractors. The permittee shall provide a Certificate of Insurance evidencing: before issuing a permit for blasting, shall require the person, company or corporation to whom the permit is issued to execute and deliver a certificate of liability insurance to include X, C, U coverage in a form to be approved by the city in an amount not less than one million dollars,~~

Commercial General Liability (CGL) insurance written on an occurrence basis with limits no less than \$5,000,000 per Occurrence and \$10,000,000/General Aggregate for personal injury, bodily injury and property damage. Coverage shall include but not be limited to contractual and property damage. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The City may, at their discretion, require additional amounts or types of insurance sufficient to cover potential claims for bodily injury, death or disability and/or property damage. This shall be determined prior to issuance of a permit based upon the use proposed by the applicant, in order to reasonably protect the City's interest and the health, safety and welfare of the public. -The City shall be named as an additional insured on the CGL insurance policy as respect to the work performed by ~~or~~ on behalf of the Permittee and a copy of endorsement ISO Additional Insured-State or Political Subdivisions Permit CG 20 12 05 3 or substitute form providing equivalent or better coverage.

~~All permit applications shall include the following language: he Permittee shall defend, indemnify and hold the city, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees arising out of or in connection with activities or operations performed by the Permittee or on the Permittee's behalf out of the issuance of this Permit, including the procurement of adequate insurance as required by the City, except for injuries and damages caused by the sole negligence of the City. or in such additional amount as may be reasonable under all of the circumstances then existing as determined by the city. The amount of insurance to be required shall be increased proportionately based upon the proximity of the proposed blasting site to utilities, infrastructure, residences and other property that could be damaged. The certificate of insurance shall state on its face that the underlying liability insurance policy includes coverage for indemnification of the city, and employees, specifically including the owners of any property from loss or damage that might result from such blasting, and coverage to indemnify, hold harmless and defend the city, its officers, agents, and employees in and from any cost, attorney's fees or judgments incurred or rendered in any and all suits or actions brought against it as a result in whole or in part from the blasting.~~

- B. The certificate shall also state that the insurance company must give the city a minimum of thirty ~~days notice~~ days' notice of cancellation of the required liability insurance coverage.
- C. The Permittee shall provide the city with written notice of any policy cancellation within two business days of their receipt of such notice.
- ~~C. The city shall have the power and authority to limit the level of blasting and, after examining all of the pertinent circumstances surrounding the proposed blasting, if it is deemed to be in the public interest, may then refuse to issue such permit or, in the case of a previously issued permit, may suspend or revoke the permit.~~

(Ord. 2267 § 5, 2000)

15.40.060 - Revocation.

The city shall have the power to revoke any permit heretofore or hereafter issued under the provisions of this chapter for failure to comply with any of the provisions of this chapter, or for any other reasonable cause.

(Ord. 2267 § 6, 2000)

15.40.070 - Appeal of denial or revocation.

Any person, company or corporation who makes application for a permit to blast under the terms of this chapter and whose application is denied by the city, or whose permit is suspended or revoked by the city under the terms of this chapter may, within ten days thereafter, file notice of appeal to the city council of the city, and with the city clerk, and the city council shall within thirty days thereafter grant a hearing to the appealing party.

(Ord. 2267 § 7, 2000)

15.40.080 - City not to assume liability.

By the passage of the ordinance codified in this chapter or the issuance of any permit under this chapter, the city assumes no responsibility for any damage caused by the person, company or corporation blasting within the city.

(Ord. 2267 § 8, 2000)

15.40.085 – Hours of Operation

- A. All blasting shall be conducted Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. except by special exception. The fire chief or his/her designee may approve blasting between 5:00 p.m. and 7:00 p.m. Monday-Friday or on Saturday from 8:00 a.m. - 5:00 p.m. at his/her sole discretion, as deemed appropriate.
- B. Requests for special exception to the hours of operation must be submitted to the fire chief or his/her designee no later than 12:00 p.m. on the date for which the exception is being requested. Approved variance may be subject to additional fees as per the current established fee schedule.
- C. No blasting shall be permitted; after 7:00 p.m. Monday through Friday, after 5:00 p.m. on Saturday, at any time on Sunday, or on any city observed holiday.

15.40.~~090~~100 - Transportation of explosives (transportation plan).

A plan that addresses the transportation of explosive materials within the city must be included with the application for a blasting permit. The transportation plan must detail the following information:

- A. Route used for deliveries and returns;
- B. Hours of transportation;
- C. Maximum quantities of explosives being transported;
- D. Types of vehicles being used. Vehicles must comply with federal and state transportation regulations for motor transport of explosive materials.

(Ord. 2267 § 9, 2000)

15.40.~~100~~110 - Storage of explosives.

- A. No overnight storage of explosive materials is permitted within the city limits. Blast holes loaded with explosives are to be shot on the day they are loaded.
- B. The required method of handling explosives in the city is as follows:
 - 1. Delivery;
 - 2. Standby during loading;
 - 3. Return of all unused explosive materials used in blasting.

(Ord. 2267 § 10, 2000)

15.40.~~110~~120 - Use of explosives.

- A. **Blasting Plan.** A blasting plan for each discrete project requiring the use of explosives shall be submitted to and approved by the city prior to the issuance of a blasting permit. The plan shall be accompanied by additional documentation (e.g., maps, site plans and excavation drawings) in order to detail the proposed blasting operation. The plan shall include:
 - 1. The location where the blasting is to occur;
 - 2. The approximate total volume of material to be blasted;
 - 3. The incremental volumes, per blast, of material to be blasted;
 - 4. The types and packaging of explosive materials to be used;
 - 5. The drill hole diameters, depths, patterns, sub-drilling depths and drill hole orientations to be used;
 - 6. The initiation system, the incremental delay times and the location of the primers in the explosive column;
 - 7. The stemming depths and stemming material for the various estimated depths of drill holes to be blasted;
 - 8. The approximate powder factors anticipated;
 - 9. The fly rock control procedures and equipment, if any, to be used;
 - 10. The maximum number of blasts to be made in any one day;
 - 11. The blast warning sound system and equipment to be used;
 - 12. The schedule start date and finish date of blasting operations.
- B. **Traffic Control Plan.** A traffic control plan acceptable to the city detailing signing, flagging, temporary road closures and detour routes for blasting operations must be filed prior to the issuance of a blasting permit. If any road closures are proposed, the traffic control plan must account for school bus schedules and shall not delay school buses on regularly scheduled routes.
- C. **Pre-blast Notification Plan.** A plan outlining a program of pre-blast public notifications, structural inspections and blast effect monitoring within a specified distance of the blasting is required prior to the issuance of a blasting permit.
 - 1. The distances from the blasting within which the (a) notification, (b) pre-blast structural inspection and (c) blast monitoring are required shall be determined by the scaled distance

formulas set forth below. No blasting will be permitted until the notification and inspection requirements are completed.

- i. Distance from the blast within which notification of all occupied structures is required:
 $Da=90\sqrt{w}$
 - ii. Distance from the blast within which inspection of all occupied structures is required:
 $Db=75\sqrt{w}$
 - iii. Distance from the blast within which monitoring of selected structures is required: $Dc=60\sqrt{w}$
2. In the scaled distance formulas (noted above), Da, Db, and Dc are the actual distances in feet from the closest point in the blast. " \sqrt{w} " is the square root of the maximum weight of the explosives in pounds detonated with a minimum eight millisecond separation from another detonation event in a sequentially delayed blast.
 3. Notification Letter. The pre-blast notification shall consist of a letter advising all residents within a specified distance of the blasts of the character and intent of the blasting program, its anticipated impact on local residents, the proposed duration of blasting activities and providing telephone numbers for public contact. Distribution of this notification shall be made a minimum of seven days prior to the start of blasting.
 4. Pre-blast Inspection. A pre-blast inspection of residents' property shall be offered to all residents within the specified distance of the blasting at the permit holder's expense and done by a qualified third party who is not an employee of the contractor. A copy of the individual inspection reports and a log of all photos taken are to be provided to the city. Where inspections are disallowed by the resident or not possible for other reasons, a certified letter shall be sent to the occupant/owner at the unsurveyed address advising them of their right to a pre-blast inspection and the possible consequences of denying an inspection.
 5. The pre-blast inspection program for residences within the specified distance shall be completed two days prior to the start of blasting with notification to the director of public works and fire chief, or their-his/her designees.
- D. Blast Plan Compliance Inspections. Blast plan compliance inspections are required for every blast until the operator can demonstrate an ability to safely blast in conformance to the blast plan and control the extraneous effects of blasting such as fly-rock, noise/air blast and ground vibration. If more than two blasting inspections are required, an additional fee of one thousand dollars per blast will be assessed.
- E. Post-blast Inspection. Building owners may request an inspection of their property if, following a blast, they feel damage has occurred to their property because of blasting. This request may be made regardless of scaled distance formula criteria given in subsection C of this section. This inspection is to be made by an operator's representative within fifteen days of the request. If no agreement is arrived at between the operator and property owner, the permitting jurisdiction, upon request by the operator or the property owner, shall arrange to have a qualified third party do an inspection and submit a timely report to all parties concerned. The cost of the inspection will be borne equally between the affected party and blasting contractor. The report will be provided to both parties and the city.
- F. Monitoring. All blasts are to be monitored using blast-monitoring equipment designed for that purpose and carrying a certification of calibration dated within the current calendar year. The blast monitors shall record peak particle velocity and frequency in three orthogonal directions and air over pressure in dBL. For shots in which the pounds detonated per eight millisecond time increment are less than ten pounds, one blast monitor is required. When ten or more pounds is detonated per eight millisecond time interval, two blast monitors are required. All blast-monitoring records are to be signed and submitted to the city within twenty-four hours of each blast or as otherwise approved by the fire chief or his/her designee prior to commencing blasting activity.
- G. Maximum Peak Particle Velocity. The maximum peak particle velocity in any seismic trace at the dominant frequency to be allowed on any residential, business or public structure. The following

chart has been modified from the US Department of the Interior Blasting Guidance Manual 8507. In this chart, "Category I" is for use by operations using explosives on a continuing basis, i.e., mining, quarrying, or any blasting that is required for more than thirty days duration. "Category II" is for operations using explosives on a transient or short-term basis, i.e., less than thirty days in any area, such as utility trenching, road grading or site grading.

- H. Air Blast. The maximum air blast over pressure permitted at the closest residential, business or public structure designed for human occupancy is not to exceed 133 dBL @2.0 Hz hi pass system per the USMB RI 8485.

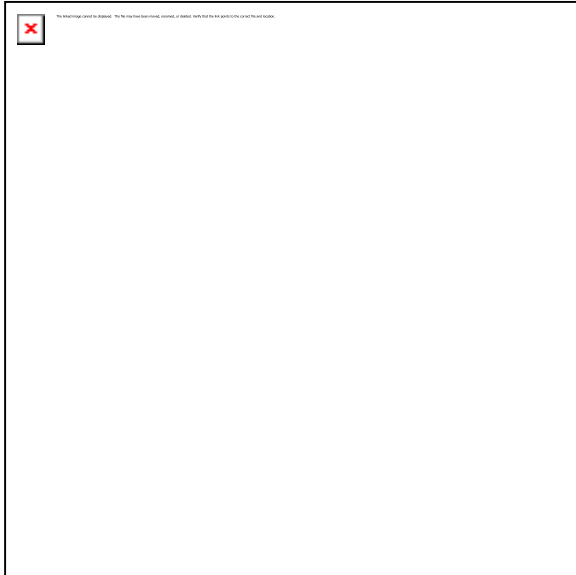
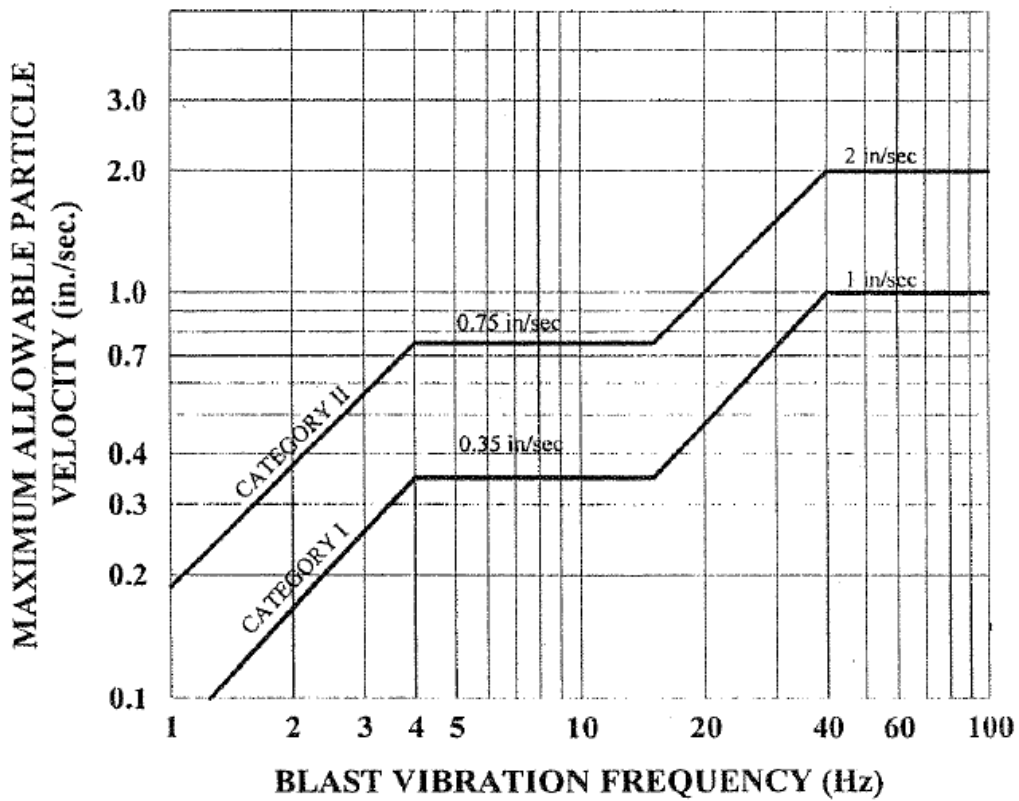


EXHIBIT "A"



(Source: U.S. Dept. of the Interior - Blasting Guidance Manual 8507)

- I. Utilities. Whenever blasting is being conducted in close proximity to or under existing utilities, the utility owner shall be notified a minimum of twenty-four hours in advance of blasting.
- J. Shot Report. A signed shot report on a form approved by the fire chief, public works director or their designee is to be filed with the city within twenty-four hours of making the blast. The report shall include the following blast information:
 - 1. Date, time and location of shot;
 - 2. Number of drill holes;
 - 3. Maximum, minimum and average drill hole depth;
 - 4. Drill hole diameter;
 - 5. Sub-drill depth;
 - 6. Total pounds of each type of explosive used;
 - 7. A drill hole section schematic showing the loading of a typical hole;
 - 8. Amount and type of stemming material;
 - 9. Schematic showing drill hole pattern;
 - 10. Initiation delay sequence;
 - 11. Maximum pounds of explosives detonated in any eight millisecond time interval;
 - 12. Type and size of any fly-rock protection devices used if any;
 - 13. Comments regarding the outcomes of the blast.
- K. The city shall be notified: (1) immediately of any blasting accident, and (2) within twenty-four hours by the permittee of any incident, damage claim or neighbor annoyance report brought to the permittee's attention.

(Ord. 2267 § 11, 2000)

15.40.120 - Penalties.

Any person violating any provision of ~~this~~ ~~this~~ chapter shall be guilty of a gross misdemeanor, and upon conviction thereof shall be punished by imprisonment for a maximum term of not more than one year or by a fine in an amount of not more than five thousand dollars, or by both such imprisonment and fine. A person shall be guilty of separate offenses for each and every day during which any violation of the provisions of ~~this~~ ~~this~~ chapter is committed.

(Ord. 2267 § 12, 2000)